

**REPORT OF THE VIRGINIA DEPARTMENT
OF ENVIRONMENTAL QUALITY**

**Waste Diversion and
Recycling Task Force
(Chapter 503, 2021 SSI and
SJR42, 2020)**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



SENATE DOCUMENT NO. 16

**COMMONWEALTH OF VIRGINIA
RICHMOND
2021**

WASTE DIVERSION & RECYCLING TASK FORCE

*A Report to the Honorable Ralph S. Northam and the Virginia General
Assembly*

January 2022

I. Executive Summary

This report is prepared by the Department of Environmental Quality (DEQ) to report on the meetings of the Waste Diversion & Recycling Task Force (Task Force) formed by DEQ pursuant to Senate Joint Resolution 42 of the 2020 Session (SJ 42) and Chapter 503 of the 2021 Special Session I Acts of Assembly.

II. Background

Senate Joint Resolution 42 of the 2020 Session requested that DEQ establish a Waste Diversion and Recycling Task Force to meet and discuss ways to increase waste diversion and recycling. The Resolution required that certain named stakeholders be included in the membership of the Task Force and directed the Task Force to discuss the following items:

- (i) methods of improving recycling, reducing waste, and diverting waste from landfills;
- (ii) recommendations to reduce waste at the source, such as composting and recycling of organic material; and
- (iii) whether current recycling rates required by Virginia law should be increased and whether state policy should be changed to give landfills a greater role in the management of organic material.

In addition, the Resolution also directed the Task Force to discuss:

- (i) potential improvements in the goals and efficiency of the grant program funded by the Litter Control and Recycling Fund pursuant to Article 3 (§ 10.1-1414 et seq.) of Chapter 14 of Title 10.1 of the Code of Virginia,
- (ii) §§ 10.1-1422.01 and 10.1-1422.04 of the Code of Virginia and related statutory provisions and whether amendments are advisable, and
- (iii) the allocation formula, codifying and increasing the percentage of grants that it awards to localities on a competitive basis, reallocating funds for the purpose of funding regional recycling programs that provide service to multiple localities, providing additional grants for educational programs, imposing constraints on the amount of grant funds that may be used to fund personnel salaries and wages, providing funding for additional collection points for recyclables generated by localities, and any other changes it deems appropriate.

Consistent with this directive, DEQ solicited for requested stakeholders to join the Waste Diversion and Recycling Task Force (Task Force). Unfortunately, due to various factors, including the COVID-19 pandemic and associated emergency orders, the Task Force was unable to meet prior to the 2021 Session..

During the 2021 Special Session 1, Chapter 503 of the 2021 Special Session 1 Acts of Assembly (SB 1319) passed and requested that DEQ continue the Task Force, adding additional stakeholder members and topics of study to include:

- (i) further study available options to divert from landfills in the Commonwealth food residuals, organic waste, and baseline recyclables;
- (ii) conduct a meta-analysis or systematic review of the policies, legislation, practices, and programs proposed and implemented by other states and draw upon such programs in considering recommendations for waste diversion policies;
- (iii) examine Virginia's status as a prime destination for out-of-state trash and explore ways in which waste from other states can be diverted from Virginia's landfills;
- (iv) assess the landfill, hazardous waste, and recycling facilities needed to manage toxic materials generated by electric vehicle and electric grid backup battery waste; and
- (v) investigate the role of a composting and food donation infrastructure in reducing the volume of waste that is accepted by landfills, including upgrading and refining existing food donation infrastructure, identifying food material and organic waste generators and haulers, comparing the use of in-house composting with regional composting hubs, studying the ideal distance between composting hubs and waste generators, considering the permitting of composting hubs, and exploring markets and systems for composting services and anaerobic digestion.

DEQ again solicited for requested stakeholders outlined in SJ42 and SB1319 and finalized the membership of the Waste Diversion and Recycling Task Force in July 2021. Task Force members are listed in Attachment 7 of the meeting minutes attached to this report.

III. Summary of the First Meeting

The Task Force held its first meeting on October 13, 2021, to begin discussing the issues and brainstorm possible steps and actions to address the overall goals of waste reduction and diversion, improving recycling and the litter grant, food donation and composting infrastructure, and management of electric vehicle batteries. The ideas were consolidated and shared out to the Task Force so that members had time to provide additional steps and actions for consideration by the group. This additional feedback is currently being consolidated, with the goal of sharing all ideas back with the group for prioritization and determining the agenda for the next meeting.

To aid in the work of the Task Force, DEQ shared program summaries related to the annual solid waste information and assessment (SWIA) report, annual recycling rate report, litter grant, and information about composting regulation and infrastructure. During the meeting, members also identified information needs to assist in Task Force Work. Minutes from the first meeting as well as all attachments are listed in the attachment.

IV. Recommendations of the Waste Diversion and Recycling Task Force

While Task Force members shared ideas during the first meeting, no recommendations were developed as more research and discussion by the group is needed.

V. Next Steps

The Waste Diversion and Recycling Task Force plans to hold three additional meetings during the 2022 calendar year.

ATTACHMENT

Meeting Minutes

Waste Diversion and Recycling Task Force
DEQ Central Office, Third Floor Conference Room
1111 East Main Street, Richmond, Virginia
Wednesday, October 13, 2021

Members Present: Michael Hatfield, Kristi Rines, Tad Phillips, Robbie Pecht, Morgan Guthridge, Mike O'Connor, Jim Taylor, Brian Sernulka, Debbie Spiliotopoulos, John Harbin, Craig Coker, James Gestrich, Greg Evanylo, Jared Stoltzfus, Kenneth Dunford, Kim Hynes, Rhonda Russell, and Helen Lee.

Members Absent: Joe Benedetto, Mitchell Smiley, Chris McDonald, Rob Laurent, Dale Bennett, Rick Galliher, and Tom Benevento.

Other Attendees: Scott Peterson (alternate for Rick Galliher), Bill Dingus, Matt Wells, Kara Alley, Joe Levine, Kevin Halligan, and Chip Hall.

DEQ Staff Attendees: Kathryn Perszyk, Craig Nicol, Janet Weyland, Sanjay Thirunagari, Gary Graham, Melinda Woodruff, Meghann Quinn, and Sharon Baxter.

The meeting convened at 10:07 a.m. The meeting adjourned at 4:03 p.m.
A quorum of the task force members (or their alternates) was present for this meeting.

1. Introductions and “Envisioning the Future” Brainstorming [Craig Nicol, DEQ]. Mr. Nicol introduced the DEQ staff members at the meeting, presented the agenda (Attachment 1), and oriented the members to the building facilities. Mr. Nicol handed out the Brainstorming Exercise (Attachment 2), divided the members into groups of two, and asked the members to consider the exercise theme assigned to their group and generate three primary steps to accomplish the goal and three specific actions to accomplish each of those steps.
2. Sharing “Envisioning the Future” Output [Craig Nicol and Janet Weyland, DEQ]. Individual task force members introduced themselves as they shared their output with the group.
 - a. Group A, Waste Reduction & Diversion.
 - i. Recycling – Needs to be more economical; needs to include regional MRFs; needs regional hubs for recycling; and needs to encourage more regional reprocessors.
 - ii. Diversion of organic waste – Strengthen the network of foodbanks, increase partnerships with farmers, and encourage new small scale composting.

- iii. Overall waste reduction – Improve both public and industry education, encourage the circular economy (cross industry recycling and use; and zero waste); and food waste reduction.
- b. Group B, Waste Reduction & Diversion.
 - i. Review current policies – Better recycling education for K-12 students; a bottle bill to raise money to pay for recycling; and better source separation.
 - ii. New rules for out-of-state trash (i.e., will not receive it unless the trash is properly separated, and fees are raised to support waste diversion and recycling hubs).
 - iii. Recruit businesses to sell recycling end products and gave them tax incentives.
 - iv. Reduce and divert for composting (collect foods from schools and industry to compost).
 - v. Increase the use of recyclables by expanding the number of useful end products and using more types of recyclables.
- c. Group A, Improving Recycling.
 - i. Every Bottle Back initiative to promote a circular economy.
 - ii. Strengthening collection infrastructure.
 - iii. Better recycling education and promotion.
 - iv. Improving collection rates.
 - v. Improving the quality of recyclables.
- d. Group B, Improving Recycling.
 - i. Improve recycling education, including on social media, print media, public service announcements, and a curriculum for school-aged children.
 - ii. Provide additional incentives for recycling through tax reimbursement, a landfill surcharge trust fund, and a grant program to public and private sectors.
 - iii. Improve infrastructure through regionalism (e.g., have smaller localities share equipment), economic development, and site readiness inventory.
- e. Group A, Litter Grant.
 - i. Review litter and recycling grant allocations, consider splitting the grants and creating subcategories, and set priorities for emergency use of funds.
 - ii. Litter Board to use COV section 10.1-1422.02 2 to the greatest extent possible.
 - iii. Identify new revenues to support litter program funding (e.g., plastic bag tax or other grant sources).
- f. Group B, Litter Grant.
 - i. Fund “charm centers” (open-air goodwill stores) at landfills through grants, including manning the center and public education and outreach for the centers.
 - ii. Fund “donation and repair centers” to sort out good things, repair as needed, and sell to auction or thrift stores, including public education and outreach.

- iii. Fund “purple bin” glass collection centers including hauling to recycling centers and public education and outreach.
3. Welcome and Resource Expectations [David Paylor, Director, DEQ]. Mr. Paylor welcomed the members and thanked them for their willingness to bring their expertise to bear on the task of satisfying the legislative mandates (Attachments 3 and 4), and for their work generating good, forward-looking recommendations for the legislature.
4. Legislative Mandates and Goals [Kathryn Perszyk, DEQ]. Ms. Perszyk presented an overview of the Land Division Program involving Solid Waste and need for opportunities for solid waste diversion from landfills (Attachment 5). She discussed the responsibilities associated with participating on a public body, the fact that the meetings are open to the public, the legislative mandates for the task force, the specific topics required by the mandates, and the report to the legislature that is due on November 1, 2022. (Attachments 7 through 11 summarize relevant Land Division programs that may be impacted by waste diversion and recycling.)
5. Ground Rules and Framework [Craig Nicol and Janet Weyland, DEQ]. Mr. Nicol presented the ground rules for discussions (Attachment 6) and conducted an exercise concerning DEQ’s model for testing for consensus that will be used by the Task Force. By consensus, members preferred to raise hands or tip their tent card on end to indicate that they have something to say. By consensus, members also preferred to silence phones and pagers instead of turning them off.
6. Sharing “Envisioning the Future” Output (continued) [Craig Nicol and Janet Weyland, DEQ].
 - a. Group A, Food Donation and Composting.
 - i. Improve food donation through better relationships between food banks and restaurants, public education and outreach on the benefits of food donation programs, and creating incentives for donations from food stores, restaurants, and farmers.
 - ii. Reduce distances between donation centers by encouraging more centers, providing more financial and education assistance, and right-sizing the donation centers for the smaller areas served.
 - iii. Provide greater resources to partner outlets and composters through improving public outreach, fostering better farmer-composter relationships, and supporting more composting sites to make it easier to access those services.
 - b. Group B, Food Donation and Composting.
 - i. Expand composting capacity by using hazard mitigation planning and providing money for new facilities.
 - ii. Improve the composting market by requiring use of compost (and native plants) during all construction, including roads, providing benefits to

agriculture, and compost benefits to shoreline/streaming restoration projects.

- iii. Enhance collection through residential curbside pickup, food recovery pickup, and mandatory composting for large generators.
- c. Electric vehicle Batteries (only one group).
 - i. Develop new regulations, provide enhanced enforcement and permitting resources, ban irresponsible disposal, and require recycling of components that have secondary value.
 - ii. Fund and conduct necessary technical and consumer research and facilitate business plan development to support meaningful battery regulation, recovery, and recycling.
 - iii. Develop appropriate infrastructure through public and private grant incentives, by capital investment, and by marketing and education.

7. Develop Categories/Discussions [Craig Nicol and Janet Weyland, DEQ].

- a. Members wanted to know what other states were doing with respect to waste diversion and recycling, and what their “best practices” and program successes were.
- b. When ranking priorities, members suggested:
 - i. Grouping priorities by complexity, any additional regulation needs, the percentage of the waste stream that the priority represents, the relative risk of the products in the waste stream, the difficulty of recycling the waste stream, the broader sustainability of the waste stream, any environmental justice and community impacts, resources for educating the public and businesses, incentives that might be available, and the infrastructure available or needed to support the recycling and diversion;
 - ii. Conducting a lifecycle analysis on the waste stream; and
 - iii. Considering giving flexibility to the program and making solutions scalable because one solution does not fit all situations.

8. Next Steps and Future Meetings [Craig Nicol and Janet Weyland, DEQ].

- a. DEQ will publish a list of the goals and actions that were generated and discussed during the meeting exercise and invite the members to submit additional goals and actions based upon their individual expertise. Subsequent actions intended for this list are:
 - i. Identifying additional resources for adding to the list of goals and actions.
 - ii. Setting criteria and ranking priorities for action on the list of goals and actions (e.g., what is hard/middle/easy to achieve, what is most important, what would make the most impact, what is technically achievable, and what is low-hanging fruit that can be addressed with the least investment, the least delay, or the least regulation, etc.).
 - iii. Once the initial survey summary is done, that summary may be revised throughout the period that the task force is meeting.
- b. The Task Force identified the following information needs:

- i. Feedback from those states already doing Waste Diversion and Recycling so that the task force is not reinventing the wheel.
 - ii. A list of other states' failures concerning Waste Diversion and Recycling.
 - iii. Gaps from the exercise tasking and some outside resources for filling those gaps.
 - iv. More detail on waste management at permitted solid waste facilities (e.g. SWIA data and reports)
 - v. Recent Recycling Rate Reports and information concerning those Virginia localities that are not meeting their mandated recycling rates.
 - vi. A Copy of Senate document 7 that includes locality recycling survey results.
 - c. Members will respond to DEQ's list of goals and actions generated at this meeting.
 - i. Members will add their additional thoughts and input.
 - ii. Members are not limited by the themes presented during the brainstorming exercise.
 - d. The next meeting of the Task Force will be in February, 2022 on a date to be determined, with a possible snow-day alternative. DEQ will distribute some proposed dates for that meeting. Two other task force meetings will be held prior to October 2022, possibly in the May/June and August/September timeframes.

Attachments:

1. Agenda.
2. Brainstorming Exercise.
3. Senate Joint Resolution 42 (2020)
4. Senate Bill 1319 (2021)
5. Presentation slides.
6. Ground Rules for Discussions
7. Task Force Member List (revised)
8. Litter Grant Program Summary
9. SWIA Program Summary
10. Recycling Program Summary
11. Composting Program Summary

Attachment 1

WASTE DIVERSION AND RECYCLING TASK FORCE
Bank of America Building 3rd Floor Conference Room
1111 East Main Street, Richmond, Virginia

October 13, 2021

- 10:00** **ENVISIONING THE FUTURE / BRAINSTORMING**
Craig Nicol / Janet Weyland
- 11:00** **BREAK**
- 11:15** **SHARING THE “ENVISIONING THE FUTURE” OUTPUT**
Craig Nicol / Janet Weyland
- 12:00** **LUNCH BREAK (on your own)**
- 1:00** **WELCOME / INTRODUCTIONS / RESOURCE EXPECTATIONS**
David Paylor
- 1:30** **LEGISLATIVE MANDATES AND GOALS**
Kathryn Perszyk
- 1:50** **GROUND RULES & FRAMEWORK / DEVELOP CATEGORIES**
Craig Nicol / Janet Weyland
- 2:30** **BREAK**
- 2:45** **DEVELOP CATEGORIES (continued)**
Craig Nicol / Janet Weyland
- 4:00** **NEXT STEPS / FUTURE MEETINGS**
Craig Nicol / Janet Weyland
- 4:30** **ADJOURN**

Attachment 2

Brainstorming Exercise

Department of Environmental Quality

Waste Diversion and Recycling Task Force

Task Force Outcomes:

1. Discuss ways to increase waste diversion and recycling
2. Publish an executive summary and a report of its findings and recommendations.

Directives:

SJR 42 – 2020 Session and S1319 – 2021 Special Session

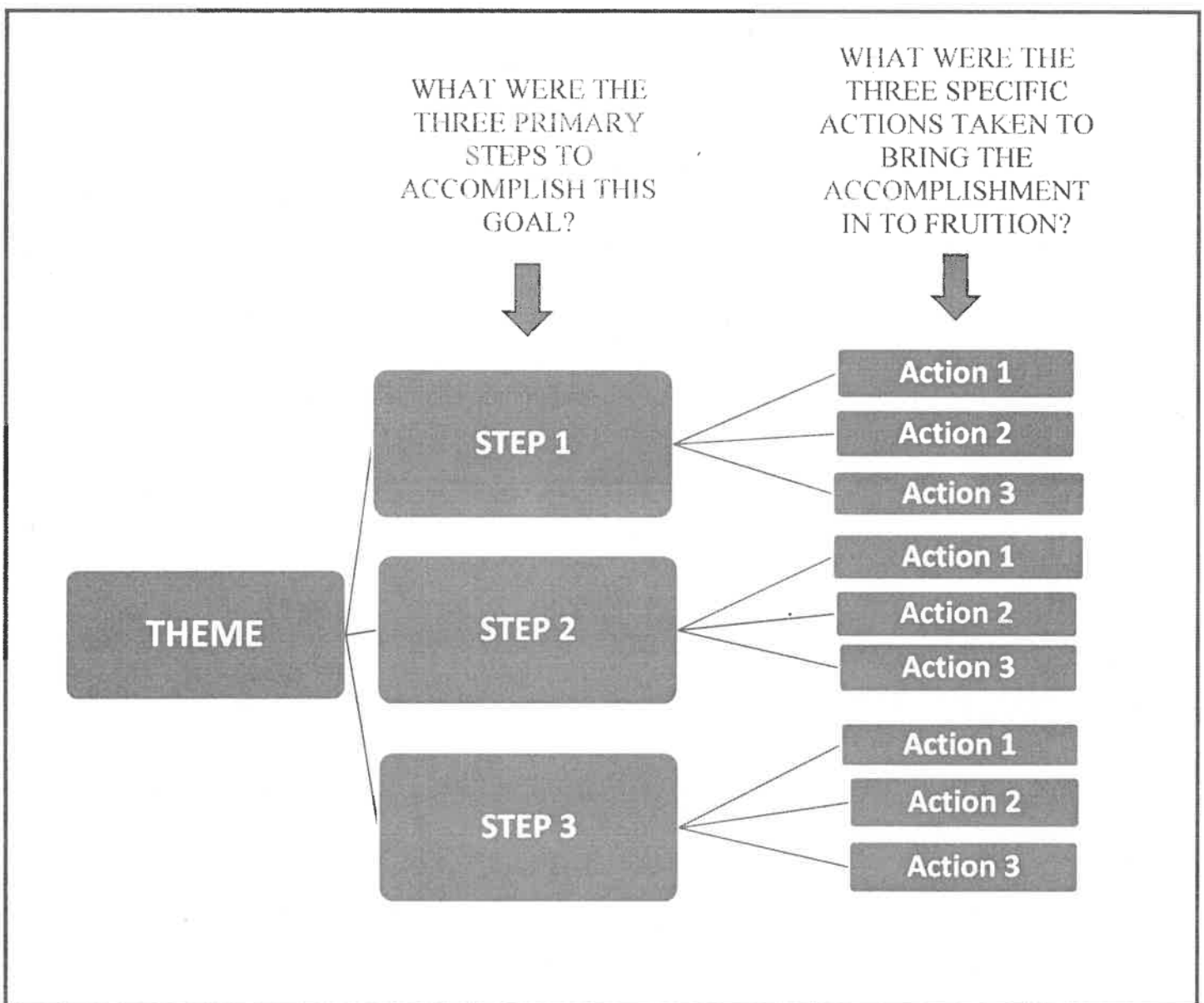
General Themes:

1. Waste Reduction & Diversion
 - Methods of reducing waste and diverting waste from landfills (SJ42)
 - Recommendations to reduce waste at the source, such as composting and recycling of organic material (SJ42)
 - Further study available options to divert from landfills in the Commonwealth food residuals, organic waste, and baseline recyclables; (SB1319)
 - Conduct a meta-analysis or systematic review of the policies, legislation, practices, and programs proposed and implemented by other states (SB1319)
 - Examine Virginia's status as a prime destination for out-of-state trash and explore ways in which waste from other states can be diverted from Virginia's landfills; (SB1319)
2. Improving Recycling
 - Methods of improving recycling (SJ42)
 - Whether current recycling rates required by Virginia law should be increased (SJ42)
 - Study available options to divert baseline recyclables from landfills (SB1319)
3. Litter Grant
 - Potential improvements in the goals and efficiency of the grant program funded by the Litter Control and Recycling Fund pursuant to Article 3 (§ 10.1-1414 et seq.) of Chapter 14 of Title 10.1 of the Code of Virginia, (SJ42)
 - Review §§ 10.1-1422.01 and 10.1-1422.04 of the Code of Virginia and related statutory provisions and evaluate whether amendments are advisable (SJ42)
 - Review the allocation formula, codifying and increasing the percentage of grants that it awards to localities on a competitive basis, reallocating funds for the purpose of funding regional recycling programs that provide service to multiple localities, providing additional grants for educational programs, imposing constraints on the amount of grant funds that may be used to fund personnel salaries and wages, providing funding for additional collection points for recyclables generated by localities, and any other changes it deems appropriate. (SJ42)
4. Food Donation & Composting Infrastructure
 - Should state policy be changed to give landfills a greater role in the management of organic material (SJ42)
 - Investigate the role of a composting and food donation infrastructure to reduce the volume of waste that is accepted by landfills, including upgrading and refining existing food donation infrastructure, identifying food material and organic waste generators and haulers, comparing the use of in-house composting with regional composting hubs, studying the ideal distance between composting hubs and waste generators, considering the permitting of composting hubs, and exploring markets and systems for composting services and anaerobic digestion (SB1319)
5. Electric Vehicle Batteries
 - Assess the landfill, hazardous waste, and recycling facilities needed to manage toxic materials generated by electric vehicle and electric grid backup battery waste (SB1319)

Brainstorming Exercise

You just picked up a well-known magazine and the cover has a feature article titled *Virginia Exceeds USDA & EPA 2030 Food Loss and Waste Reduction Goals: Cutting each by more than half*. Upon reading the article you see there were three primary steps to accomplishing that goal and each primary step further highlights three specific actions taken to bring the goal into fruition.

1. Based on the theme you have been assigned spend your time together deciding what the 3 primary steps were that allowed for the goal to be accomplished.
2. Then decide what 3 actions per step (9 in total) were accomplished to bring each step into fruition.



Attachment 3

Senate Joint Resolution 42 (2020)

SENATE JOINT RESOLUTION NO. 42

Requesting the Department of Environmental Quality to establish a Waste Diversion and Recycling Task Force to meet to discuss ways to increase waste diversion and recycling. Report.

Agreed to by the Senate, March 4, 2020

Agreed to by the House of Delegates, March 3, 2020

WHEREAS, pursuant to § 10.1-1411 of the Code of Virginia, localities are required to maintain a minimum recycling rate of 25 percent of generated waste, or 15 percent in localities with a low population density; and

WHEREAS, technological and economic changes in the waste management industry have made it more difficult for localities to achieve those targets; and

WHEREAS, in 2019, pursuant to Chapter 615 of the Acts of Assembly of 2018, the Department of Environmental Quality (the Department) completed its report titled "Recycling in Virginia: An Evaluation of Recycling Rates and Recommendations" (the Report); and

WHEREAS, the Report recommended that the Department establish a Waste Diversion and Recycling Task Force to develop recommendations for reducing waste and diverting it from landfills; and

WHEREAS, the Report also observed that economic trends in the recycling sector have in some circumstances made existing local recycling practices fiscally unfeasible; and

WHEREAS, the Report noted that, until 2016, China was by far the largest consumer of the recyclable waste of the United States, purchasing about 40 percent of its recyclables; and

WHEREAS, in 2017, China implemented its National Sword policy to reduce smuggling and illicit activities related to recyclables; and

WHEREAS, in 2018, China banned the import of 24 types of recyclable materials and announced its intent to ban the import of all recyclable materials by 2020; and

WHEREAS, the Report observed that changes to China's recyclables policy decreased demand for recyclables from the United States by 40 percent, resulting in the reduction, suspension, or termination of service by public and private recycling facilities; and

WHEREAS, the Report concluded that "the cost of maintaining recycling programs is relatively high while the supply of recyclable material exceeds the current market demand" and "in several rural areas, due to a variety of factors, operation expenses can make recycling cost prohibitive"; and

WHEREAS, technological changes in the United States recycling industry and shifts in demand in the market for recyclable materials have rendered some Virginia recycling programs economically unsustainable; and

WHEREAS, for localities to meet their statutory recycling targets and accomplish Virginia's general policy of responsible management of waste material, additional state support to localities may be necessary; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Department of Environmental Quality be requested to establish a Waste Diversion and Recycling Task Force to meet to discuss ways to increase waste diversion and recycling.

In conducting its meetings, the Waste Diversion and Recycling Task Force shall include stakeholders, including localities, the Virginia Waste Industries Association, the Virginia Beer Wholesalers Association, the Virginia Beverage Association, the Virginia Petroleum and Convenience Marketers Association, the Virginia Manufacturers Association, the Virginia Recycling Association, the Virginia Municipal League, the Virginia Association of Counties, and any other entity it deems appropriate. The Waste Diversion and Recycling Task Force shall discuss (i) methods of improving recycling, reducing waste, and diverting waste from landfills; (ii) recommendations to reduce waste at the source, such as composting and recycling of organic material; and (iii) whether current recycling rates required by Virginia law should be increased and whether state policy should be changed to give landfills a greater role in the management of organic material.

In conducting its meetings, the Waste Diversion and Recycling Task Force also shall discuss (a) potential improvements in the goals and efficiency of the grant program funded by the Litter Control and Recycling Fund pursuant to Article 3 (§ 10.1-1414 et seq.) of Chapter 14 of Title 10.1 of the Code of Virginia, (b) §§ 10.1-1422.01 and 10.1-1422.04 of the Code of Virginia and related statutory provisions and whether amendments are advisable, and (c) the allocation formula, codifying and increasing the percentage of grants that it awards to localities on a competitive basis, reallocating funds for the purpose of funding regional recycling programs that provide service to multiple localities, providing additional grants for educational programs, imposing constraints on the amount of grant funds

that may be used to fund personnel salaries and wages, providing funding for additional collection points for recyclables generated by localities, and any other changes it deems appropriate.

All agencies of the Commonwealth shall provide assistance to the Waste Diversion and Recycling Task Force for its meetings, upon request.

The Waste Diversion and Recycling Task Force shall meet no more than four times and shall complete its meetings by November 30, 2021, and shall submit to the Governor and the General Assembly an executive summary and a report of its meetings, including meeting minutes and any identified recommendations, for publication as a House or Senate document. The executive summary and report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports no later than the first day of the 2022 Regular Session of the General Assembly and shall be posted on the General Assembly's website.

Attachment 4

Senate Bill 1319 (2021)

2021 SPECIAL SESSION I

ENROLLED

ENROLLED

SB1319ER

VIRGINIA ACTS OF ASSEMBLY — CHAPTER

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An Act to study waste control and recycling; permits.

[S 1319]

Approved

Be it enacted by the General Assembly of Virginia:

1. § 1. A. That the Department of Environmental Quality (the Department) is requested to continue its Waste Diversion and Recycling Task Force (the Task Force) that was created pursuant to SJ 42 (2020).

B. That the Department shall include in the Task Force additional members including (i) two directly affected community members who reside within a reasonable vicinity of a currently permitted and operating landfill; (ii) two experts on solid waste management and recycling at the academic or research level who shall be independent of and not associated with or employed by any public or private waste management entity or any advocacy group; (iii) a member of the Virginia Council on Environmental Justice; (iv) a representative of a rural solid waste planning unit; (v) a representative of an urban solid waste planning unit; (vi) a representative of a rural local government with experience in land-use planning; (vii) a representative of an urban local government with experience in land-use planning; (viii) a representative of the Virginia Trucking Association; and (ix) a representative of an environmental advocacy group focusing on the management and recycling of solid waste. If the Director of the Department determines that certain additional members would contribute to the deliberations of the Task Force, he may allow participation of additional members who shall be nonvoting members and shall not be counted for purposes of a quorum.

C. That in addition to those topics of study identified in SJ 42 (2020), the Task Force shall (i) further study available options to divert from landfills in the Commonwealth food residuals, organic waste, and baseline recyclables; (ii) conduct a meta-analysis or systematic review of the policies, legislation, practices, and programs proposed and implemented by other states and draw upon such programs in considering recommendations for waste diversion policies; (iii) examine Virginia's status as a prime destination for out-of-state trash and explore ways in which waste from other states can be diverted from Virginia's landfills; (iv) assess the landfill, hazardous waste, and recycling facilities needed to manage toxic materials generated by electric vehicle and electric grid backup battery waste; and (v) investigate the role of a composting and food donation infrastructure in reducing the volume of waste that is accepted by landfills, including upgrading and refining existing food donation infrastructure, identifying food material and organic waste generators and haulers, comparing the use of in-house composting with regional composting hubs, studying the ideal distance between composting hubs and waste generators, considering the permitting of composting hubs, and exploring markets and systems for composting services and anaerobic digestion.

D. That in developing its recommendations, the Task Force shall take guidance from the U.S. Environmental Protection Agency's Sustainable Materials Management Program Strategic Plan.

E. That the Task Force shall hold its first meeting of the 2021 interim no later than October 15, 2021, and shall publish an executive summary and a report of its findings and recommendations no later than November 1, 2022.

Attachment 5

Presentation slides



Legislative Mandate & Goals

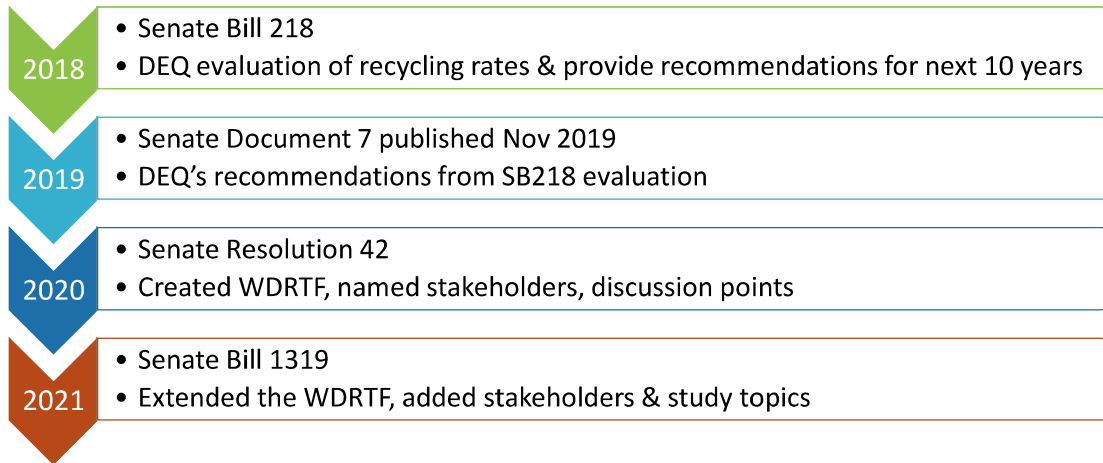
Waste Diversion & Recycling Task Force

Kathryn J. Perszyk
Director, Land Protection & Revitalization Division
Virginia Department of Environmental Quality
October 8, 2021

WDRTF = Public Body

- All meetings of the group are public meetings, subject to FOIA
- TF goal is to reach a *consensus* on recommendations
- *Consensus* is defined as a willingness of each member of a group to be able to say that he or she can live with the decisions reached and will not actively work against them outside of the process

How'd we get here?



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DEQ

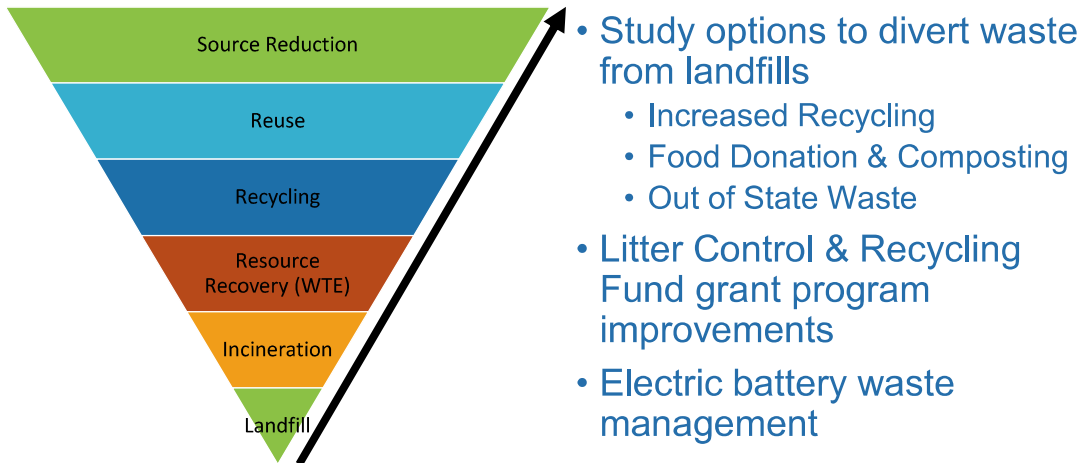
Senate Document 7: Recycling in Virginia: An Evaluation of Recycling Rates and Recommendations

- Creation of a Waste Diversion & Recycling Task Force
- Suggested Economic Incentives
 - Direct economic funding to recycling & beneficiation facilities
 - Increase resources for local recycling programs & recycling efforts
 - Resources to support recycling initiatives at the state level

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DEQ

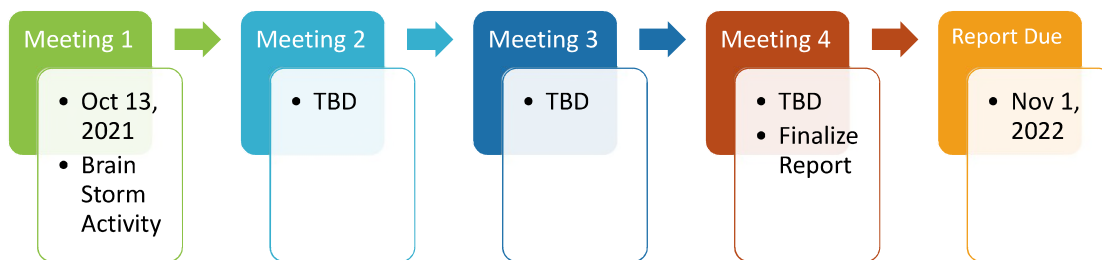
Waste Diversion & Recycling Task Force



6

DEQ

Waste Diversion & Recycling Task Force Timeline



7

DEQ

Other Waste Related Activities

- Plastic Waste Prevention Advisory Council (PWPAC)
 - Eliminate plastic waste impacting native species
 - Contribute to achieving plastics packaging circular economy industry standards
 - Report Due Nov 1, 2021
- Executive Order 77
 - Eliminate single-use plastics at state agencies, colleges & universities
 - July 1, 2021 cessation of buying, selling, or distribution of plastic bags, single-use plastic and polystyrene food service containers, plastic straws and cutlery, and single-use plastic water bottles
 - Overall waste reduction effort

8

DEQ

HB1902 Polystyrene Food Service Container Ban



Shutterstock

- Certain chains - July 1, 2023
- All food vendors – July 1, 2025
- Up to \$50/day civil penalty
- Litter Control & Recycling Fund
- Public information campaigns

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DEQ

HB1801 Litter Fine Increase

\$500 FINE



Daily Express



Salisbury Post

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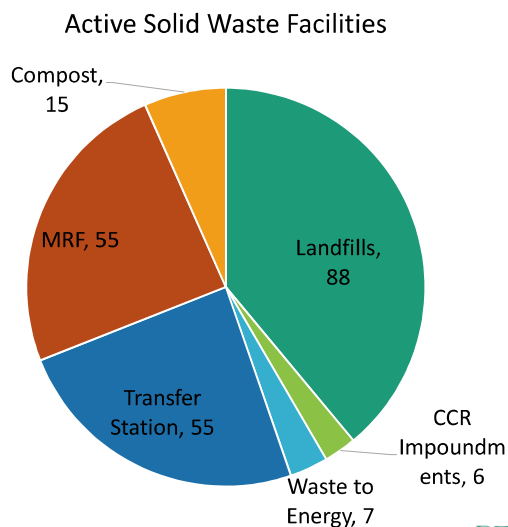


Waste Management in Virginia

- 71 Solid Waste Planning Units
 - Solid Waste Management Planning (20yr)
 - Recycling Rate Reporting / Action Plans

- Mix of Solid Waste Owners & Operators
 - Locally owned/operated facilities
 - Authority owned/operated
 - Locally or Authority owned / Privately operation
 - Privately owned/operated (host agreements)

- 25% waste received from out of state



11



Statutory Permit Exemption for Recycling

- 10.1-1408.1 J
- No permit shall be required pursuant to this section for recycling or for temporary storage incidental to recycling.
- As used in this subsection, "recycling" means any process whereby material which would otherwise be solid waste is used or reused, or prepared for use or reuse, as an ingredient in an industrial process to make a product, or as an effective substitute for a commercial product.

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DEQ

Regulatory Exemption for Recycling

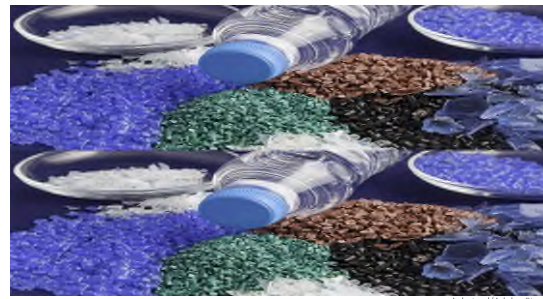
- 9VAC20-81-95.F.
- The following solid wastes are exempt from this chapter provided that they are reclaimed or temporarily stored incidentally to reclamation, are not accumulated speculatively, and are managed without creating an open dump, hazard, or a public nuisance:
 1. Paper and paper products;
 2. Clean wood waste that is to undergo size reduction in order to produce a saleable product, such as mulch;
 3. Cloth;
 4. Glass;
 5. Plastics;
 6. Tire chips, tire shred, ground rubber; and
 7. Mixtures of above materials only. Such mixtures may include scrap metals excluded from regulation in accordance with the provisions of subsection C of this section.

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DEQ

SB1164 Advanced Recycling

Manufacturing process for conversion of post-use polymers & recovered feedstocks into basic hydrocarbon raw materials & other materials



Pyrolysis

Gasification

Depolymerization

Solvolyis

Post-use polymers & recovered feedstocks:

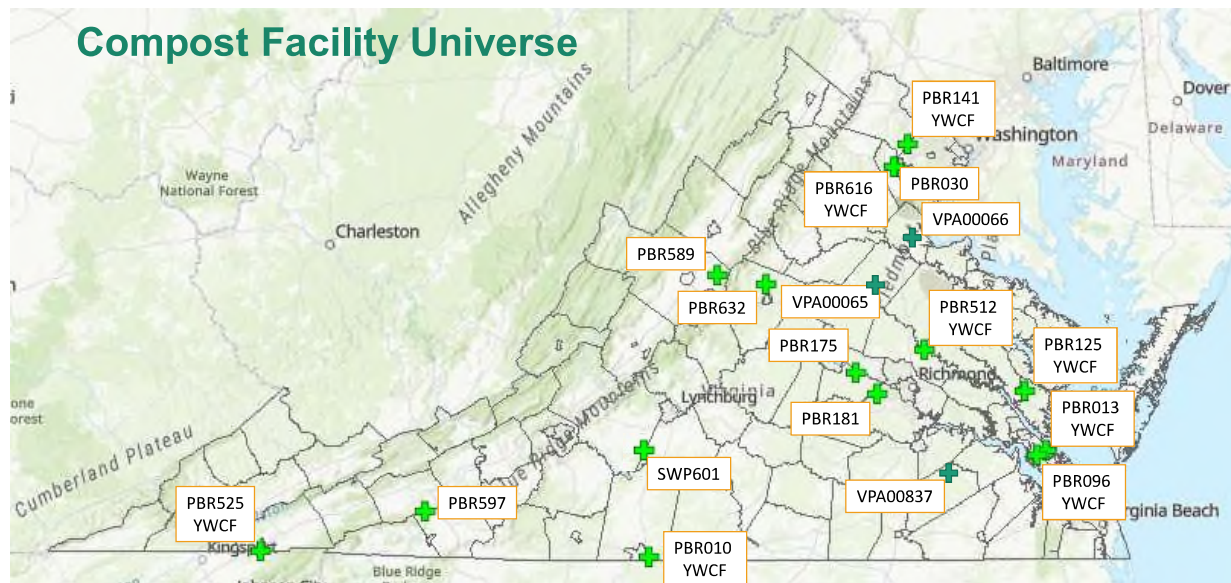
- Do not include (& are not mixed with) unprocessed MSW
- Are not considered SW when processed through advanced recycling



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DEQ

Compost Facility Universe



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DEQ

GUIDELINES FOR DISCUSSIONS

1. Listen actively with an open mind.
2. Speak from your own experience instead of generalizing.
3. Be respectful and focus on the issue or the idea, not the speaker. Refrain from personal attacks.
4. Be concise and speak only once on a particular issue. Weigh in with new or different information to share *after* everyone else has had an opportunity to speak.
5. Simply note your agreement with what someone else has said if you feel that it is important to do so; it is not necessary to *repeat* it.
6. Present options or alternatives at the same time you present the problems you see.
7. Be courteous and speak one at a time; interruptions and side conversations are distracting and disrespectful to the speaker. "Caucus" or private conversations between a group member and an audience member may take place during breaks or at lunch, not during the work of the group and be mindful that this is an open public meeting.
8. Come prepared.
9. Turn off all devices.
10. Stay positive; a negative attitude hinders the group's ability to reach agreement.

Attachment 7

Task Force Member List (revised)

Task Force Member List

Organization	Member	Alternate
Wise County	Michael Hatfield	Bill Dingus
City of Virginia Beach	Kristi Rines	None
Virginia Waste Industries Association	Tad Phillips	None
Virginia Beer Wholesalers Association	Robbie Pecht	None
Virginia Beverage Association	Morgan Guthridge	None
Virginia Petroleum and Convenience Marketers Association	Mike O'Connor	None
Westrock	James (Jim) Taylor	None
O. I. Glass	Brian Sernulka	None
Virginia Recycling Association	Joe Benedetto III	None
Virginia Municipal League	Mitchell Smiley	None
Virginia Association of Counties (VACo)	Chris McDonald	None
Northern VA Regional Commission	Debbie Spiliotopoulos	Scott Macdonald
Hampton Roads Planning District Commission	John Harbin	None
Coker Composting	Craig Coker	None
Landfill Advisory Board Prince William County	James Gestrich	None
Community Member	Rob Laurent	None
Virginia Tech	Greg Evanylo	None
James Madison University	Jared Stoltzfus	None
Tazewell County	Kenneth Dunford	None
SWANA/Central VA Waste Management Assoc. (CVWMA)	Kim Hynes	None
Charles City County	Rhonda L. Russell	None
City of Alexandria	Helen Lee	None
Virginia Trucking Association	Dale Bennett	None
Virginia Bottle Bill Organization	Rick Galliher	Scott Peterson
Virginia Council on Environmental Justice	Tom Benevento	None

Attachment 8

Litter Grant Program Summary



LITTER GRANT PROGRAM

DEQ awards non-competitive and competitive grants to Virginia localities for local litter prevention and recycling program implementation activities.

Non-Competitive Litter Grants:

Since 1980, non-competitive litter grants have been awarded annually to localities for litter prevention and recycling program implementation, continuation and/or expansion. The grant program awards are based on population and road miles. All Virginia localities are eligible if they have eligible litter prevention and/or recycling program. The grant applications are due to DEQ by June 30th each year. The accounting and performance reports for the grant awarded in the preceding year are due by August 1st each year.

An eligible program must include at least two of the following elements to have a comprehensive program:

- planning and organization,
- recycling,
- youth education,
- cleanups,
- law enforcement,
- public communication,
- Adopt-A locality-sponsored programs.

To date, Virginia businesses, who pay into the Litter Control and Recycling Fund, have contributed over \$67 million to support those local government litter control and recycling programs. The amount of funds available for this grant program is approximately 90% of the net resources allocated for the Litter Fund. This grant funding is to be used primarily for educational activities that support anti-littering and pro-recycling efforts. Towns usually receive the smallest grant amount in an approximate range of \$800 to \$1,000.

For the 2021 grant year (same as fiscal year), \$1,708,156 was disbursed among 187 applicants.

Competitive Litter Grants:

Since 2017, competitive litter grants have been awarded to Virginia localities for a variety of litter prevention and recycling projects. All localities currently receiving the non-competitive litter grant are eligible to apply for the competitive litter grant. The competitive grant funds can be used for developing and implementing statewide and regional litter prevention and recycling educational programs and special/pilot projects. The competitive grant applications are due to DEQ by July 15th each year. The accounting and performance reports for the grants awarded in the preceding year are due by August 1st each year. The grant applications are reviewed by the Litter Control and Fund Advisory Board and the recommendations are submitted to DEQ for final approval.

The amount of funds available for this grant program is approximately 5% of the net resources allocated for the Litter Fund. For the 2021 grant year, \$95,035 was disbursed among 13 localities.

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

DEQ Summary Report:

DEQ provides an annual summary report on the litter grant to the public and stakeholders. This report summarizes the litter prevention and recycling program expenses and activities conducted in the previous fiscal year by the local government recipients of the annual litter and recycling grants.

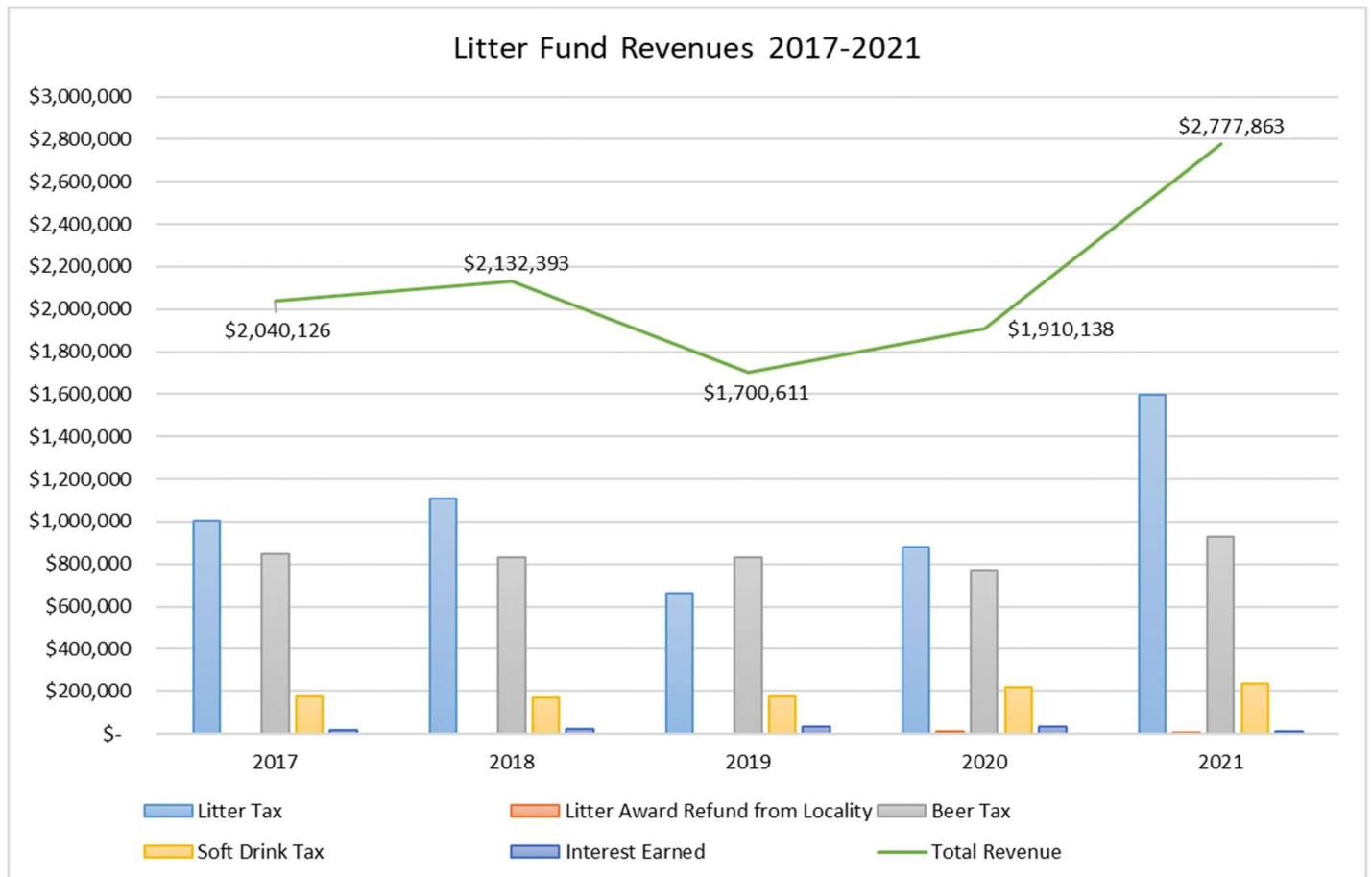
Litter Control and Fund Advisory Board:

The Litter Control and Fund Advisory Board is appointed by the Governor and consists of five members as follows: one representative for each of the three types of entities required to pay the litter taxes, one local litter or recycling coordinator and one member from the general public. The Litter Control and Fund Board meets annually to track the status of the Fund and the progress of the annual grant programs.

Litter Control and Recycling Fund & Changes:

The Code of Virginia provides for the following annual litter taxes to be collected and deposited in an interest earning account - the Litter Control and Recycling Trust Fund (Fund). Figure 1 below shows the litter fund revenues from 2017 to 2021.

Figure 1: Litter Fund Revenues from 2017 and 2021



Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

The 2021 General Assembly made changes to the [statute](#) and added a requirement for operation of public information campaigns to discourage the sale and use of expanded polystyrene products and to promote alternatives to expanded polystyrene. Also, statutory changes were made to fund the public information campaign by allowing use of litter funds up to a maximum of five percent.

- **Litter Control and Recycling Fund (Section 10.1-1422.01)** - Provides formula for allocation of funds, amended by legislation in 2008 and effective July 1, 2009.
- **Litter Tax (Section 58.1-1707)** - \$20 per year for each location of manufacturers, wholesalers, distributors or retailers of consumer products and an additional \$30 per year, per location where groceries, soft drinks and beer are sold.
- **Excise Tax on Soft Drinks (Section 58.1-1702)** - A gross-receipts tax on wholesalers.
- **Excise Tax on Beer and Wine Coolers (Section 4.1-235 & 4.1-236)** - 2% of the taxes collected go to the Fund.

Information Links:

- Litter Grant Online Application: <https://portal.deq.virginia.gov/>
- Statute: <https://law.lis.virginia.gov/vacode/title10.1/chapter14/section10.1-1422.01/>
- DEQ Litter Grant Guidelines:
https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\440\GDoc_DEQ_282_v5.pdf
- GY2020 Annual Performance and Accounting Summary Report available at:
<https://www.deq.virginia.gov/home/showpublisheddocument/8257/637680040846072667>

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

Attachment 9

SWIA Program Summary



SOLID WASTE INFORMATION AND ASSESSMENT (SWIA) PROGRAM

Since 1998, permitted solid waste facilities (“Facilities”) have been required to report annually to DEQ the amount of solid waste they managed (treat, store, or dispose of), by weight or volume, at their facility during the previous calendar year. This reporting requirement is known as the Solid Waste Information and Assessment (SWIA) program. The report is due by March 31st of each year. As of 2002, these Facilities have also been required to report their available capacity and the expected life of the facility.

Per the Solid Waste Management Facility Permit Action Fees and Annual Fees regulations (9VAC20-90), all Facilities active or in post-closure care are subject to annual fees. The tonnage provided through SWIA reporting is used for calculating the annual fee for landfills and waste to energy facilities.

The following solid waste categories are to be identified in the report:

- municipal solid waste,
- construction and demolition debris,
- industrial waste,
- regulated medical waste,
- vegetative and yard waste,
- incinerator ash,
- sludge,
- tires,
- white goods,
- friable asbestos,
- petroleum-contaminated soil and
- other special waste.

The Facilities are also required to provide data on each of the following methods of waste management:

- recycled onsite,
- composted onsite,
- landfilled onsite,
- incinerated onsite,
- sent offsite to be recycled,
- sent offsite to be treated, stored or disposed,
- stored onsite at the beginning of the reporting period,
- stored onsite at the end of the reporting period, mulched and
- other.

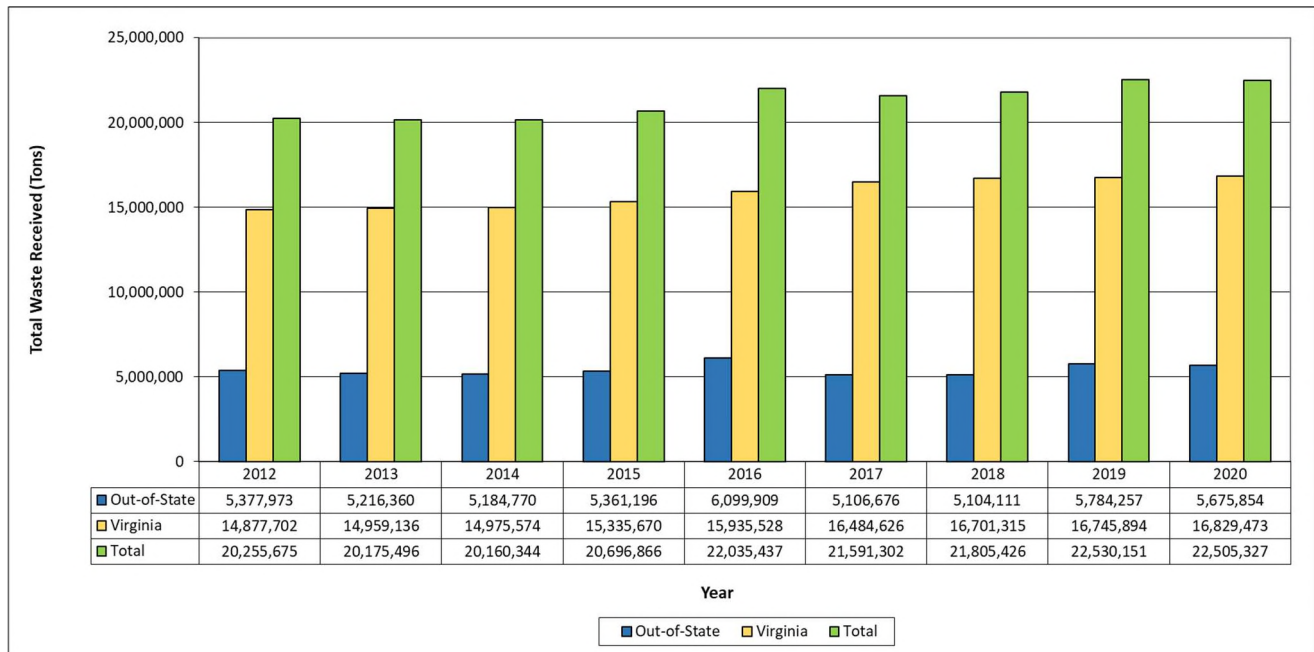
Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

For Calendar Year 2020 (CY2020), two-hundred and one (201) Facilities provided information on their activities. The reports summarize the following:

- 22,505,326.75 tons of solid waste received. Of this total, 16,829,472.76 tons (75%) originated in Virginia and 5,675,853.99 tons (25%) originated from other states.
- Municipal Solid Waste (MSW) constituted 14,321,452.83 tons of the total. Of this total, 10,251,111.06 tons (72%) originated in Virginia and 4,070,341.77 tons (28%) originated from other states.
- Five (5) states accounted for 97.20% of all waste received from out-of-state sources:
 - Maryland (42.72%); New York (16.71%); New Jersey (16.47%); Washington, D.C. (15.14%); and North Carolina (6.16%). See Figure 1 attached for the total waste received from both Virginia and out-of-state over the last nine years.
- Facilities reported that 8.67% of the total waste they managed was diverted from disposal by recycling or mulching.
- Facilities composted 1.10% of the total waste managed.

Most recycling occurs at facilities other than permitted waste management facilities. Local governments provide more complete information on the recycling of waste generated in Virginia in the recycling rate reports submitted to DEQ.

Figure 1: Total Waste Received from In and Out of State (in Tons):



Information Links:

- VA Regulations: <https://law.lis.virginia.gov/admincode/title9/agency20/chapter81/section80/>
- SWIA Online Application: <https://portal.deq.virginia.gov/>
- CY2020 Annual Solid Waste Report: <https://www.deq.virginia.gov/home/showpublisheddocument/9500/637593571415570000>

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

Attachment 10

Recycling Program Summary



RECYCLING PROGRAM

The Department of Environmental Quality's (DEQ) recycling program works closely with local governments and solid waste planning units to ensure that locality-based recycling programs are able to meet or exceed the state's mandated recycling rates. DEQ provides guidance on recycling topics and programs, tracks and reports on Virginia's recycling efforts, and works with businesses, localities, other state agencies and environmental groups to promote environmental awareness through recycling.

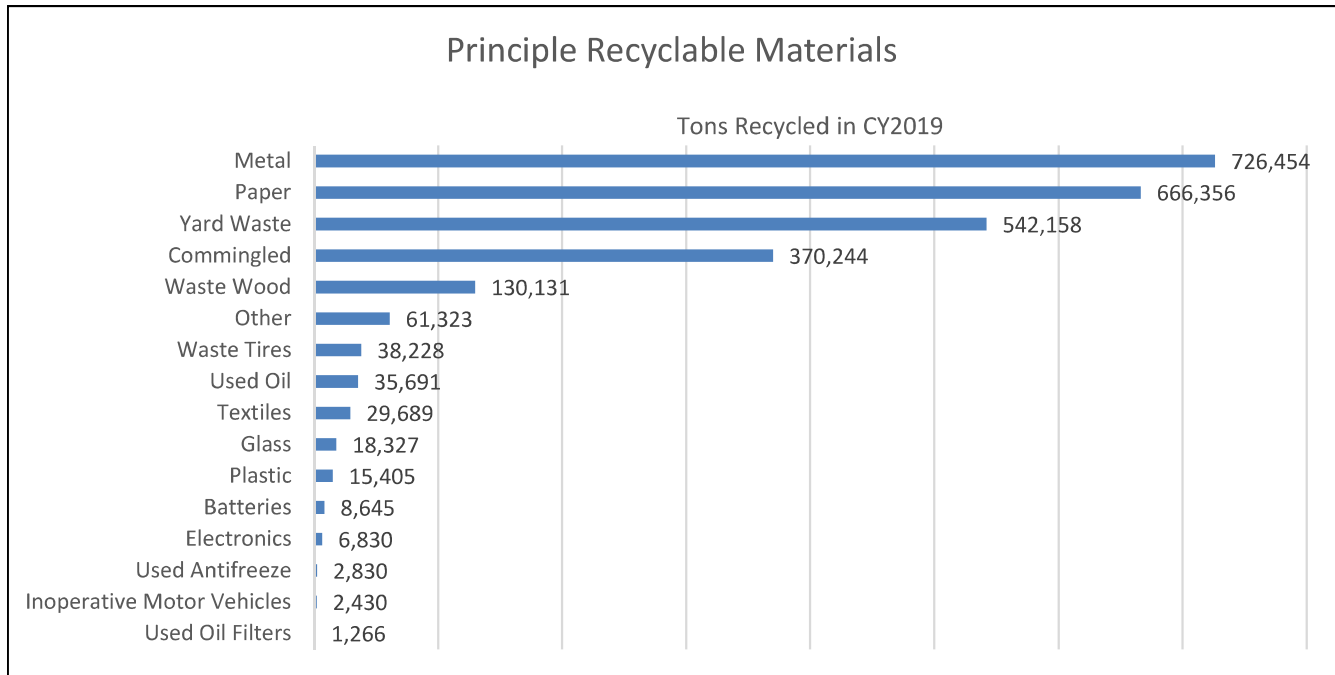
DEQ works with interested parties from the public and private sectors to identify opportunities to strengthen the state's recycling infrastructures and also encourages citizens to follow the waste management hierarchy and engage in recycling. DEQ also works with the public and regulated community on pollution prevention for reducing, eliminating or even better, *stopping* pollution before it's created, recycled or disposed.

The Virginia General Assembly passed [legislation](#) in 1986 requiring localities (e.g. Solid Waste Planning Units, or SWPUs) to meet the mandated recycling rates and also provides incentives in form of a state income tax credit to facilities for the purchase of machinery and equipment processing recyclable materials. In 1989, the Virginia General Assembly adopted legislation that established a 25 percent recycling rate target for communities, which was modified in 2006 when the General Assembly established a two-tiered recycling mandate of 15 percent and 25 percent (effective July 1, 2006). In 2012, additional Legislative action resulted in the elimination of the annual reporting requirement for SWPUs with populations of 100,000 or less after 2012. Instead, those SWPUs are required to report every four years, beginning with 2016. All SWPUs with populations over 100,000 are required to report annually.

Currently, Virginia has 71 planning units that are required to submit their recycling data to DEQ. Every year, DEQ publishes an annual summary recycling report that provides details on recycling conducted by each solid waste planning unit along with a state recycling rate calculation based on the data provided by these planning units. Virginia's calculated recycling rate for CY2019 was 43.2%, which included credits for solid waste reused, non-municipal solid waste recycled, recycling residues and source reduction programs. This calculated rate was derived from the recycling rate data submitted by 17 Virginia SWPUs to DEQ as required by regulation. However, DEQ received recycling reports voluntarily from 25 additional planning units. Historically, most of the highest recycling program rates were in the urban areas of Virginia. Figure 1 below shows the amount of principle recyclable materials recycled by the localities. The annual recycling report for calendar year 2020 will be issued later this year. Some localities have expressed challenges collecting data from businesses located in their planning unit.

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

Figure 1: CY2019 Principle Recyclable Materials Recycled Tonnage



Recent Reports - Senate Bill 218:

Senate Bill 218 was adopted by the 2018 General Assembly and directed the Department to provide an evaluation of recycling rates and recommendations for improving the reliability of the supply of recycled materials during the next 10 years in order to provide for beneficial use by industry. As part of this effort, DEQ reached out to solid waste planning units, locality recycling coordinators, recycling organizations and other stakeholders to provide input. This report was due to the General Assembly by November 1, 2019. A link to the published report is provided below as the last link.

Information Links:

- Statute: <https://law.lis.virginia.gov/vacode/10.1-1411/>
- VA Recycling Requirements: <https://law.lis.virginia.gov/admincode/title9/agency20/chapter130/section125/>
- VA Recycling Date Reporting Requirements: <https://law.lis.virginia.gov/admincode/title9/agency20/chapter130/section165/>
- Recycling Rate Reporting Form (DEQ Form 50-30): <https://www.deq.virginia.gov/home/showpublisheddocument/4988/637485727027000000>
- CY2019 Annual Recycling Summary Report: <https://www.deq.virginia.gov/home/showpublisheddocument/5524/637503709360970000>
- SB218 Report: <https://rga.lis.virginia.gov/Published/2019/SD7>

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

Attachment 11

Composting Program Summary



SOLID WASTE COMPOSTING OPERATIONS

The Virginia Waste Management Act (§10.1-1408.1 K & L) has long required that the Board, in establishing its solid waste management regulations, provide for reasonable exemptions from permitting requirements, both procedural and substantive, in order to encourage the development of yard waste composting facilities and facilities for the decomposition of vegetative waste. These exemptions were originally promulgated in separate yard waste composting regulations in 1992 (VR672-20-32), revised and recodified over time (9VAC20-100, 9VAC20-101), and subsequently incorporated into the Solid Waste Regulations in 2011. The current regulations provide permitting exemptions for the following composting activities:

- Composting of sewage sludge at the sewage treatment plant of generation without addition of other types of solid wastes.
- Composting of household waste generated at a residence and composted at the site of generation.
- Composting activities performed for educational purposes as long as no more than 100 cubic yards of materials are onsite at any time. Greater quantities require DEQ approval.
- Composting of animal carcasses onsite at the farm of generation.
- Composting of vegetative waste or yard waste generated onsite by owners or operators of agricultural operations or owners of the real property or those authorized by the owners of the real property with conditions.
- Composting of yard waste by owners or operators (includes agricultural operations) who accept yard waste generated offsite provided the requirements of 9VAC20-81-397 B are met. Requires registration.
- Composting of preconsumer food waste and kitchen culls generated onsite and composted in containers designed to prohibit vector attraction and prevent nuisance odor generation.
- Vermicomposting, when used to process Category I, Category II, or Category III feedstocks in containers designed to prohibit vector attraction and prevent nuisance odor generation. If offsite feedstocks are received no more than 100 cubic yards of materials may be onsite at any one time. Greater quantities require DEQ approval.
- Composting of sewage sludge or combinations of sewage sludge with nonhazardous solid waste provided the composting facility is permitted under the requirements of a Virginia Pollution Abatement (VPA) or VPDES permit.

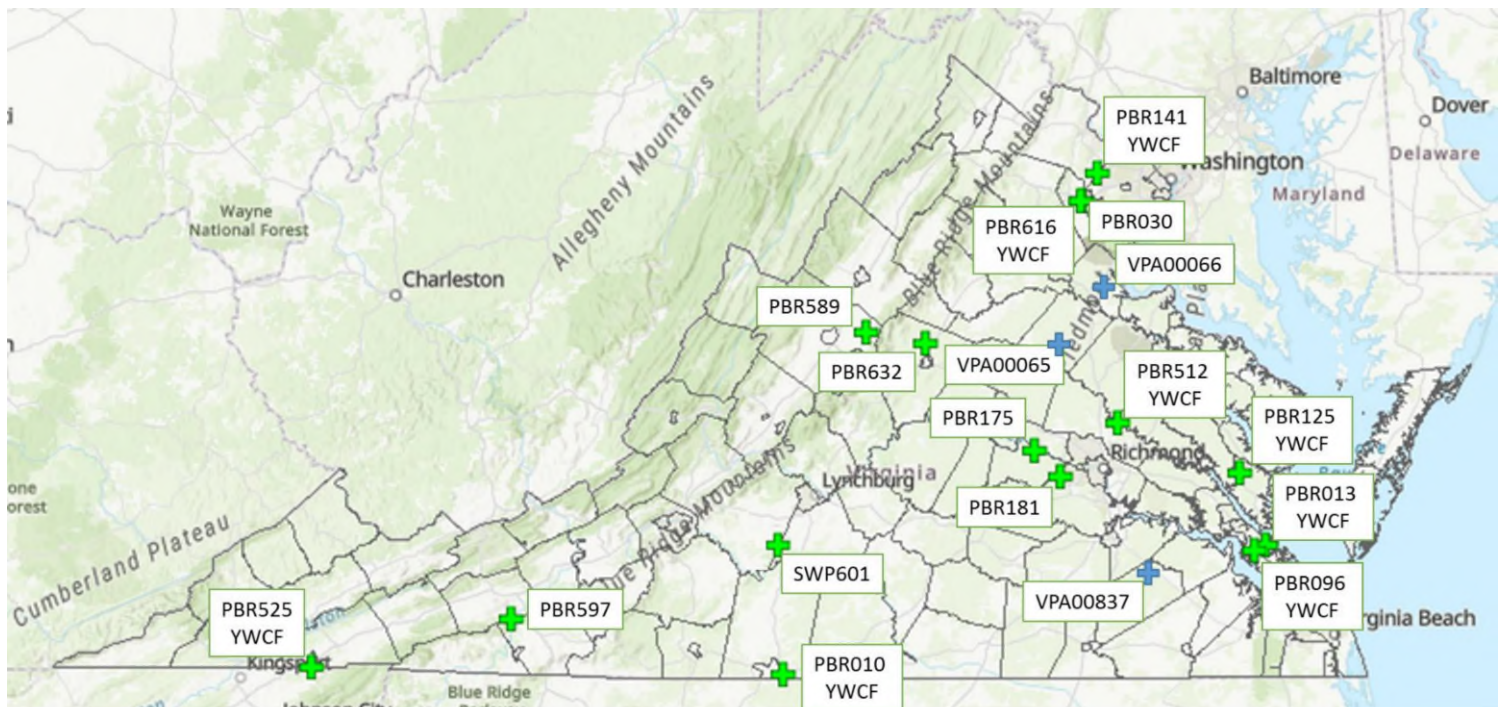
All other compost activities are required to obtain a solid waste permit. A Permit-by-Rule is available in lieu of a full solid waste permit. The compost facility must meet the regulatory siting, design, operation, finished product testing, and closure standards outlined in Part IV of the VSWMR, maintain financial assurance, and have a certified waste management facility operator.

Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

Figure 1: Solid Waste Permitted Universe #s

Permit ID	Facility Name	Unit Subtype	Facility Size (acres)	Process Rate (tpd)	Waste Storage Capacity
PBR010	Danville City of - Yard Waste Composting Facility	Feedstock Category I	3	35	
PBR013	VPPSA -Compost Facility	Feedstock Category I			
PBR096	Newport News City - Yard Waste Compost Fac	Feedstock Category I	29		
PBR125	Middle Peninsula Landfill and Recycling Facility	Feedstock Category I	1		4500 cy
PBR141	Loudoun Composting	Feedstock Category I	25	123	
PBR512	Hanover County - 301 Solid Waste Facility	Feedstock Category I	3	5	1900 tons
PBR525	Bristol Integrated Solid Waste Management Facility	Feedstock Category I	2		
PBR616	Commonwealth Recycled Aggregates Inc	Feedstock Category I	15	600	35000 cy
PBR030	Prince William County - Balls Ford Yard Waste	Feedstock Category II-IV	15	368	
PBR175	DOC Powhatan Correctional Center	Feedstock Category II-IV			1 ton
PBR181	Watkins Nurseries Inc	Feedstock Category II-IV	6	24	
PBR589	Black Bear Composting	Feedstock Category II-IV	47		
PBR597	Commonwealth Compost and Recycling Services Inc	Feedstock Category II-IV		5	
PBR632	Panorama Paydirt	Feedstock Category II-IV	20	150	20 cy
SWP601	Royal Oak Farm Solid Waste Composting Facility	Feedstock Category II-IV	17	516	36948 cy

Figure 2: Compost Facilities GIS Map



Note: This summary is intended for the purpose of the Waste Diversion & Recycling Task Force. This summary does not represent the full program details.

