CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

2024-2044

Prepared by

Central Virginia Waste Management Authority
5-Year Update Adopted September 20, 2024

Virginia Department of Environmental Quality
Review and Approval Pending

Original Plan 2004-2024
Adopted by CVWMA February 20, 2004

With

Richmond Regional Planning District Commission
Adopted April 8, 2004

Crater Planning District Commission
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EXECUTIVE SUMMARY

The Central Virginia Solid Waste Management Plan (SWMP or Plan) was prepared for Central Virginia Waste Management Authority (CVWMA) and its 13 local government members within the Authority's Service Area in accordance with the requirements and provisions of Regulations for Solid Waste Planning (9VA20-130-10 et seq. Amendment 1). The original Plan was approved by the CVWMA, the Richmond Regional Planning District Commission and the Crater Planning District Commission for the planning period 2004-2024.

The Virginia Waste Regulations require solid waste planning units to update their solid waste management plans every 5 years with projections for the next 20-year period. The CVWMA Staff worked collaboratively with CVWMA Technical Advisory Committee, Executive Committee, Board Members and Member Localities on the evaluation of the solid waste and recycling system, recycling and disposal needs and other revisions to the Plan as deemed necessary. Included herein is a summary of the evaluation, updates, revisions and changes proposed for the SWMP over the period 2024-2044.

The geographic area served by the Central Virginia Waste Management Authority (CVWMA) is estimated to produce over 3,100 tons of municipal solid waste per day and by the year 2044, the level of waste generated is anticipated to increase to more than 3,700 tons per day. How to properly and cost-effectively manage this increasing level of waste is a significant challenge facing this area and its local governments. Waste management is a major public policy issue, which will not be readily solved without significant changes in the waste generation and disposal practices of area citizens, businesses, and governments.

Based on the EPA estimates of average waste generation per capita and the population estimates this Region will generate an estimated 25,000,000 tons of solid waste over the next 20 years, an average of 1.25 million tons per year.

The Plan outlines the current and expected and recommended regional efforts to manage the Region's waste in accordance with Virginia's established waste management hierarchy of source reduction, reuse, recycling, resource recovery, incineration and landfilling.

Recycling: For the last decade, the Region has recycled 55%-60% of waste generated in the Region and is expected to continue recycling at the same rate or higher over the planning period. Based on the

Region's current recycling rate (2023) of 58.1%, the Region is expected to recycle an average of 700,000 tons per year over the planning period.

Landfill Disposal Capacity: After recycling, non-recyclable waste of approximately 530,000 tons annually (10.6 million tons over 20 years) is projected to be managed via alternative solutions and/or disposal in landfills. Since the last update to the Plan in 2019, two privately owned landfills have closed or are in the process of closing and the capacity of another landfill was significantly reduced and is no longer taking in waste. CVWMA initiated and approved 3 major amendments in Spring/Summer 2024 to remove about 17,600,000 tons of landfill capacity that is no longer available to the Region (Section 4).

That leaves 2 active sanitary landfills accepting Municipal Solid Waste (MSW) in the Region (WM Charles City and Republic's Old Dominion), which per *DEQ's 2018 Solid Waste Report* combined have about 18 million tons of capacity remaining.

There are 4 permitted Construction Demolition Debris Landfills in the Region which provide additional capacity for construction and land clearing material of another 16 million tons.

One important thing to note when reviewing capacity is that Virginia is a large importer of solid waste from other states. Twenty-five percent of the solid waste managed through landfills in the State comes from out of state. In addition, most, if not all, of the landfills in the Region are permitted to accept waste from outside of the Region including other areas in Virginia. In addition, Republic's Old Dominion

Landfill in eastern Henrico County is estimated to be at capacity within the 20-year planning period.

Locality Needs Identified: Part of the update and evaluation of solid waste needs includes input from member localities. CVWMA has received as of September 13, 2024, 11 of the 13 surveys sent to Chief Administrative Officers of each jurisdiction. Localities were asked about 1) what they feel are the biggest issue(s) regarding solid waste; 2) additional products/waste streams they anticipate a future need to find ways to store, transport, recycling and/or dispose of; 3) compliance issues and expansion/cessation plans of specific landfills in their respective jurisdiction; 4) what strategies the Region should consider in order to better manage and plan for the Region's solid waste in the areas of Economic Development, Legislation, Education and Outreach and Other; and 5) to provide any other comments or suggestions CVWMA should consider in the development of the solid waste plan. See details of local input in Section 6.

CONCLUSION AND STRATEGIES

At the current rate of waste disposed of in landfills in and immediately outside the CVWMA Region from out of state, out of Region and in Region, coupled with anticipated waste reduction efforts and increased recycling and waste diversion, disposal capacity in and outside of our Region is deemed sufficient for the Region's waste disposal needs over the next 20 years.

However, as landfill capacity continues to shrink over the next 20-year planning period, we can expect costs to increase as competition is reduced and waste is transported farther away for disposal. It will be important to diversify waste management strategies in order to become less reliant on sanitary landfill disposal. CVWMA's adopted Strategic Plan (Section 3) is incorporated in this solid waste plan update and includes strategies to increase recycling and waste diversion initiatives. This updated Plan includes options and strategies for:

- ***Source Reduction,*** including education and outreach on Sustainable Materials Management and waste prevention and reuse resources.
- ***Recycling and Composting,*** to include
  - Conducting an evaluation of waste and recycling in the Region, including a waste characterization study.
  - Evaluate available commodities markets and for recyclable material and create programs, where feasible.
  - Increase access to recycling services to multi-family units.
  - Evaluate and implement region-wide organics composting, to include yard and food scraps and support efforts to site a food and organics composting facility in the Region.
  - Support Extended Producer Responsibility legislation.
  - Assist economic development officials to attract business to Virginia and central Virginia that will contribute to the Sustainable Materials Management Hierarchy in handling the Region's waste.
- ***Alternative for non-recyclable waste -*** Future plans and actions include:
  - Research, explore and gain an understanding of new and existing technologies to process non-recyclable waste.
  - Determine feasibility of one or more processes that would be suitable to handle the Region's municipal solid waste (after recycling).

Approval to Submit the 5-Year Update (2024-2044) to the CVSWMP

At the September 20, 2024 regular meeting of the CVWMA Board of Directors, the Board was provided a summary of the updated Plan elements as outlined and presented herein. After review, the CVWMA Board of Directors, adopted Resolution 25-02, authorizing the CVWMA staff, upon review of the CVWMA Technical Advisory Committee, to transmit the updated Plan for the planning period 2024-2044 to the Virginia Department of Environmental Quality.

SECTION 1: INTRODUCTION

The Central Virginia Solid Waste Management Plan (CVSWMP or "Plan") provides a guide for the management of solid waste generated within the Central Virginia Waste Management Authority (CVWMA or Authority) Service Area for the 20-year period 2024-2044.

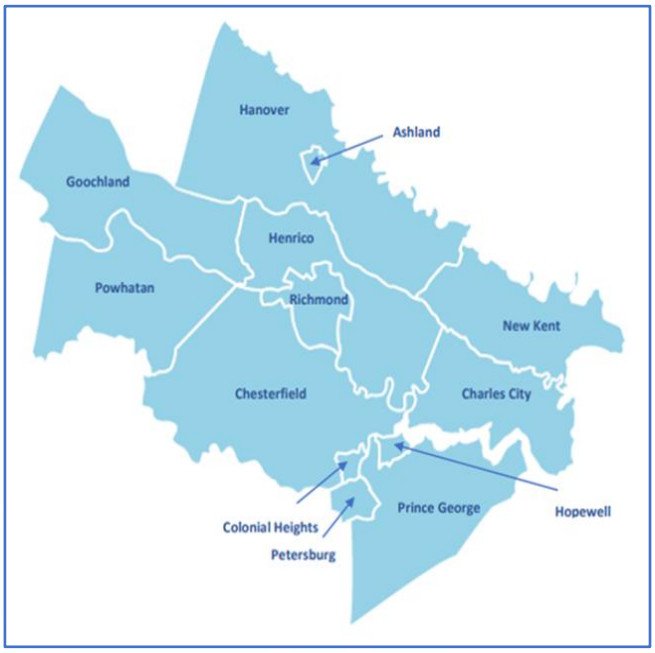
The CVSWMP was prepared for the CVWMA and 13 local governments within the Authority's Service Area in accordance with the requirements and provisions of Virginia Regulations for Solid Waste Management Planning, Section 9 VAC 20-130 et seq of the Virginia Code.

This Plan documents existing recycling and solid waste management programs and infrastructure that meet public policy objectives, including Virginia's recycling goals, describes the Region's goals and objectives for managing waste, and describes the strategies for implementing the goals and objectives. The specific roles, responsibilities, milestones and a schedule for meeting solid waste management goals and objectives are also outlined.

1.1 CENTRAL VIRGINIA SERVICE AREA

The CVWMA Service Area covers 2,441 square miles of land area, making it the largest service area of any public service authority in Virginia. This Service Area covers the entire Richmond Regional Planning District (referred to as the Richmond Planning Subarea), which includes the City of Richmond, the Town of Ashland and the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent and Powhatan. The Service Area also covers the Cities of Petersburg, Colonial Heights and Hopewell and the County of Prince George, all located within the Crater Planning District (referred to as the Crater Planning Subarea). Throughout the Central Virginia Solid Waste Management Plan, the terms "Service Area" and "Region" are used interchangeably and refer to the 13-jurisdiction CVWMA Service Area.

Map 1: Map of CVWMA Service Area



1.2 HISTORY OF THE CVWMA

The CVWMA was formed in December 1990 in response to a 1988 General Assembly mandate that required Virginia localities, either individually or collectively, to develop comprehensive Solid Waste Plans that identified how mandated and specified recycling rates would be attained within the plan development area. Thirteen localities in central Virginia banded together to achieve common goals and objectives collectively. On May 31, 1991, the Virginia Department of Waste Management, at the request of the Crater Planning District Commission (PDC 19) and the Richmond Regional Planning District Commission (PDC 15), designated the geographic boundaries of the CVWMA as a regional Plan area (Solid Waste Planning Unit) pursuant to Section 10.1-1411 of the Code of Virginia.

The formation of the Authority under the provisions of the Virginia Water and Waste Authority Act (Section 15.2-5100 et seq. of the Code of Virginia, as amended) provided for representation from each of the 13-member jurisdictions on the basis of population. Effective in 2008, member jurisdictions with a population up to 75,000 are represented by one voting member, 75,001 to 150,000 are represented by two voting members and 150,001 and above are represented by three voting members on the CVWMA Board of Directors.

The initial Solid Waste Management Plan was developed and adopted in accordance with a Memorandum

of Understanding among the Richmond Regional Planning District Commission (RRPDC), Crater Planning District Commission (CPDC) and CVWMA. The Virginia Department of Waste Management was requested to designate the Service Area of the CVWMA as the planning boundary for a regional solid waste management plan and to recognize the CVWMA as the entity responsible for the implementation of the Plan. The initial Plan was approved on May 14, 1992.

The CVWMA, as the agency charged with implementing the components of the Plan, has developed customized recycling and solid waste programs that provide either exclusive or complementary support to local initiatives throughout the CVWMA Service Area. A menu of services is available to meet the needs of a diverse geographical region. All CVWMA programs are provided through a competitive procurement process with private contractors, in accordance with the Virginia Public Procurement Act. Programs are developed that benefit rural, suburban and urban communities.

The original focus of the CVWMA was toward meeting the recycling mandates established by Virginia law. House Bill 1488 adopted by the 1988 Virginia General Assembly required that 25 percent of the Region's solid waste be diverted through recycling and reuse programs by 1995. The uncertainty of this requirement was the driving force that resulted in a regional approach to this mandate and the formation of the CVWMA. The recycling mandate has been revised since the 1988 legislation. Each solid waste planning unit shall maintain a minimum 25% recycling rate or a minimum 15% recycling rate if it has (i) a population density of less than 100 persons per square mile according to the most recent United States Census, or (ii) a not seasonally adjusted civilian unemployment rate for the immediately preceding calendar year that is at least 50% greater than the state average as reported by the Virginia Employment Commission for such year (Revised in 2006).

In addition, each solid waste planning unit or locality with a population of greater than 100,000 persons according to the most recent United States census shall prepare and submit a recycling survey report to the Virginia Department of Environmental Quality (DEQ) annually. Each solid waste planning unit or locality with a population of 100,000 or less according to the most recent United States Census shall prepare and submit a recycling survey report to the DEQ once every four years. Recycling survey reports submitted once every four years shall only be required to include information for the most recent single year (Revised 2012).

The CVWMA maintains a close working relationship with the two planning district commissions and with each CVWMA member locality. The roles and responsibilities of the participating agencies, localities, and organizations in the development of the CVSWMP are described in the following sections.

1.3 DEVELOPMENT OF THE PLAN

The Plan focuses on all elements of solid waste management in the CVWMA Service Area, including generation, collection, transportation, treatment, storage, recycling and disposal. The Plan addresses both public and private solid waste management issues and encourages public and private sector partnerships and participation in its implementation.

Public/Private Partnerships - The CVWMA provides 13 member localities with solid waste and recycling programs, which benefit urban, suburban and rural communities. The CVWMA administers these programs through public procurement with private contractors such as waste haulers, recyclers and farmers. The CVWMA's ability to negotiate and administer contracts with the private sector on behalf of the thirteen member localities relieves the localities of the time and effort of the procurement process and administering solid waste and recycling programs.

Although the Plan addresses both public and private solid waste management initiatives, its primary focus is on governmental actions and initiatives to meet solid waste management objectives. In that regard, the Plan assigns specific roles and responsibilities for the CVWMA, planning district commissions, local governments, and other participating public agencies for plan maintenance and implementation.

CVWMA Staff updated the Plan with minor revisions in 2009. In 2014, the 10-year mark, in 2019 and again in 2024 CVWMA Staff worked with the Technical Advisory Committee, member localities, the Executive Committee and the CVWMA Board on revising the Plan for the 20-year period 2024-2044. The Update and Revisions to the Plan were approved by the CVWMA Board of Directors on July 18, 2014, August 16, 2019 and September 20, 2024.

1.3.1 Plan Development Responsibilities

The roles and responsibilities of the participating agencies and organizations in the development of the Central Virginia Solid Waste Management Plan are described in the following:

CVWMA Staff and Consultant(s) – The CVWMA coordinated the development of the original Plan and is responsible for maintaining, amending, updating and implementing the Plan.

CVWMA Technical Advisory Committee (TAC) and Adhoc Working Groups – The original TAC consisted of at least one technical staff representative from each CVWMA member jurisdiction and several representatives from the private sector (A TAC membership list is provided in Appendix E). Because of the significance and scope of the development of the Plan, an Ad Hoc Working Group consisting of CVWMA staff members, TAC members and consultant, was assembled. This group prepared materials for the Plan and at monthly meetings, provided guidance and feedback on plan elements. (A Working Group membership listing is included in Appendix E). The TAC is integral in providing technical review of the Plan, amendments, updates, etc.

Planning District Commissions (PDC) - In the designation resolutions mentioned previously, each local government also requested that its respective planning district commission be recognized as the planning entity responsible for development of their respective planning Subarea's portion of the Plan. The Authority coordinated the planning activities of the two planning district commissions to insure development of an integrated plan for the entire Service Area.

Citizen Advisory Committee (CAC) - Formal citizen participation in development of the Plan was encouraged in part through the Citizen Advisory Committee (A list of CAC members is presented in Appendix E). The CAC was solicited for input on the initial planning process, feedback on the Plan draft and encouraged to help educate the general public and identify the needs and concerns of citizens in their respective jurisdictions. The CVWMA CAC was discontinued in 2009.

1.3.2 Plan Development Process

As noted in the preceding section, the CVWMA staff developed the original Central Virginia Solid Waste Management Plan along with the Technical Advisory Committee of the CVWMA as well as the Ad Hoc Working group. Mr. Milton Martin was hired by the CVWMA to provide technical assistance in the organization and preparation of the Plan. The firm of Joyce Engineering, Inc. provided technical assistance and engineering review (letter of technical acceptance by Joyce Engineering is included in Appendix F).

At several critical points in development of the Plan, the planning staff made presentations to the CVWMA Board of Directors, apprising the members of the accomplishments to date and the upcoming development and adoption schedule.

The Crater Planning District Commission and the Richmond Regional Planning District Commission adopted the Plan in the spring of 2004. Copies of the resolutions of plan approval are included in Appendix F. The final Plan was submitted by the CVWMA to the DEQ on June 30, 2004. As required by the regulations, the CVWMA conducted public hearings on the final draft of the Plan at the February 2004 CVWMA Board of Directors Meeting and in each of the two planning Subareas prior to submitting the Plan to the DEQ. Public hearing comments are presented in Appendix G.

Citizen's Participation in Developing the Original Plan - Work to develop the SWMP began in July 2003. A first step was to organize a nine-member working committee, composed of three members of the

CVWMA staff, one representative from both the Richmond Regional and Crater Planning District Commissions (PDCs), three representatives of the CVWMA TAC, and the planning consultant. This group met monthly to develop and review information and to oversee the process for developing the plan. As a part of this project, a plan for informing the public of the project and seeking citizen participation was prepared.

As a part of the effort to inform the public of the project, monthly updates on the status of the project were included as agenda items for both the full 40 members and alternates of the CVWMA Board of Directors and the 26-member TAC.

Outreach efforts for citizen participation began in August 2003. A press release was prepared and published (Appendix G) on the project. The Press Release included the schedule of the project and announced opportunities for citizens' input during the planning process. The press release was sent to most major local media, as well as Solid Waste Program Managers and Public Information Officers of member localities. The intent of the press release was to publicize the project, to identify opportunities for public input during the development of the Plan, as well as during the formal review and approval process required by state law and regulations, and to solicit public comments. The Press Release notified the public that full copies of the 1992 Plan were available for review at the PDC offices.

During the same time frame, written communications were sent to the Chief Executive / Administrative Officer of member localities, asking for their comments on the current solid waste management system, and any issues or needs that required specific attention during the preparation of the Plan. Responses from all 13 members were received.

In October, a public input session was scheduled for the regular CVWMA Board of Directors monthly meeting. This public input session was advertised in the local media. Special notices were provided to vendors currently contracted by the CVWMA. Staff outlined the draft CVSWMP Plan project at the October 17, 2003 CVWMA Board of Directors meeting.

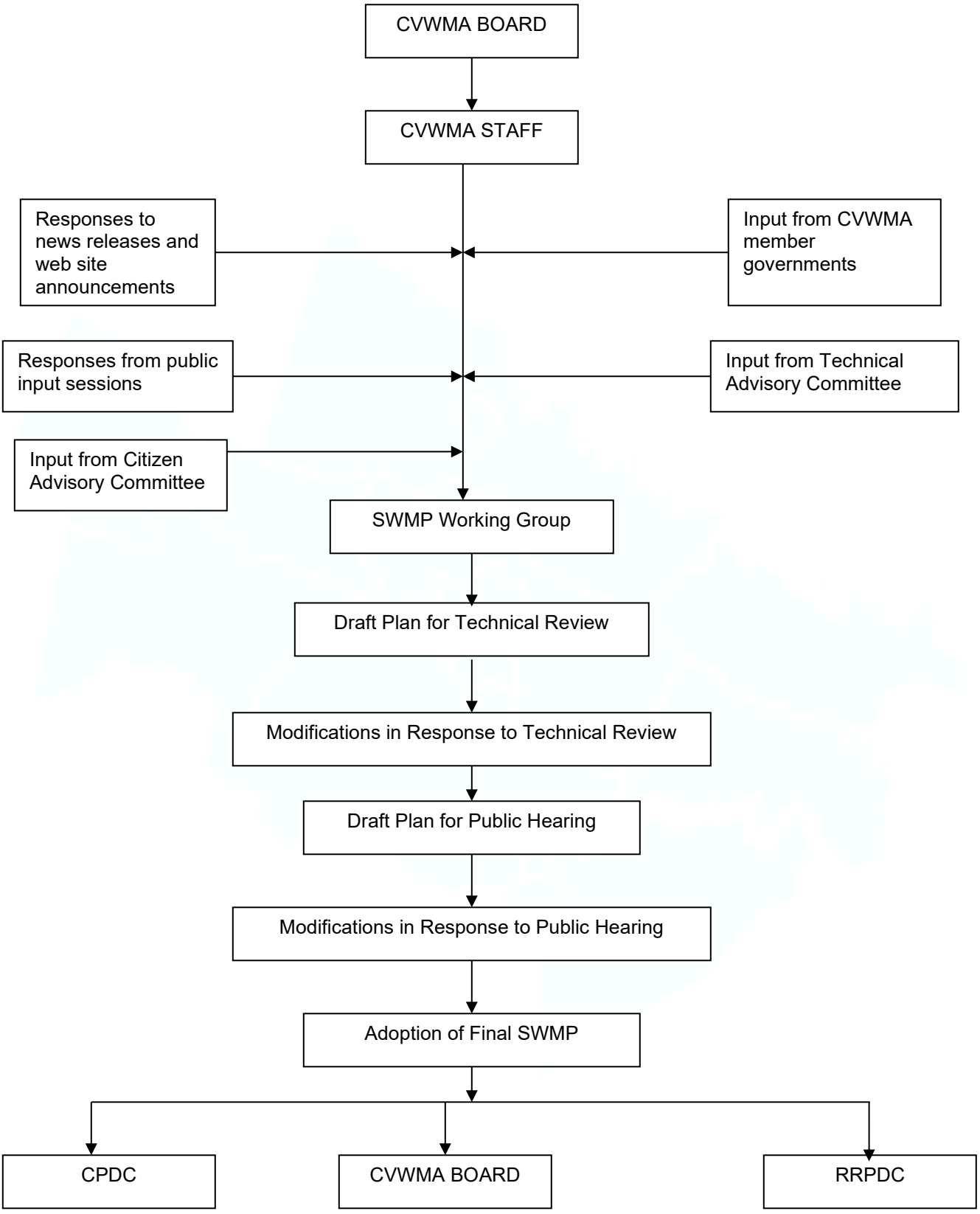
Following this presentation, the same material was sent to all members of the CVWMA's eleven (11) member CAC, soliciting their input at this point in the development of the Plan. A separate communication was sent to all CVWMA members, asking for any citizen comments that they may have in their files or may have received in the past.

Once the initial draft Plan for review was prepared, a press release published by CVWMA was issued soliciting public comment. Formal public hearings in compliance with state requirements were held prior to action by approving bodies. A public hearing was held at the February 2004 CVWMA Board of Directors Meeting.

CVWMA offers an ongoing outlet for the public, citizens and businesses, to provide suggestions, make comments and requests regarding solid waste planning. CVWMA offers the public an opportunity to speak at monthly Board of Directors meetings, held on the third Friday of every month and/or contact us via email or telephone.

Chart 1 on the next page illustrates the adoption process for the Plan.

Chart 1: PROCESS FOR DEVELOPMENT OF SOLID WASTE MANAGEMENT PLAN



SECTION 2: SERVICE AREA DESCRIPTION

The CVWMA Service Area is a mixture of highly urbanized, suburban and rural areas.

The highest population density and the greatest concentration of jobs are within the City of Richmond and the immediate surrounding suburbs of Chesterfield and Henrico Counties. Population density decreases as one travels away from Richmond toward the suburban areas of Henrico, Chesterfield, and Hanover Counties. Rural development patterns are found in northern and eastern Hanover County and the Counties of Charles City, Goochland, New Kent and Powhatan.

This development pattern changes toward the southern boundary of Chesterfield County. South of Chesterfield County are the Cities of Petersburg, Colonial Heights and Hopewell. Immediately adjacent to these cities is Prince George County, which is characterized by suburban development adjacent to the three cities and by rural development patterns in southern and eastern portions of the jurisdiction.

2.1 POPULATION

Population has increased by nearly 300,000 persons, or 30% in the last 20 years. The majority of growth in the Richmond Planning Subarea has occurred in the suburban localities of Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan Counties, with New Kent (84%) and Goochland (55%) being two of the fastest growing counties in Virginia. The City of Richmond, highly urbanized, has experienced positive population growth of 15% over the last two decades. Migration from Northern Virginia contributed to the greatest influx in the Richmond metropolitan area in history, more specifically into rural counties. The Region has seen and continues to see significant growth in multi-family dwellings in urban and suburban areas, and less single-family infrastructure. Also, important to note is the growing population over age 65 and the increase development in retirement communities.

The Cities of Colonial Heights, Hopewell and Petersburg have seen small growth in the last 20 years. Prince George County has grown by over 30%, attributed in part to the growth at Fort Gregg-Adams.

The Region is expected to see continued strong growth in population, increasing by nearly 18% over the next 20 years. Much of this growth is projected in the suburban and rural counties, specifically Prince George (30%), New Kent (29%), Chesterfield (22%) and Goochland (21.5%) Counties. The City of Richmond as the urban core continues to grow in population and that steady growth is anticipated to continue, increasing by 14%.

Table 1: Population Projections 2025-2045

Locality	2020*	2025	2030	2035	2040	2045
Charles City County	6,773	6,414	6,200	6,116	6,033	5,995
Chesterfield County	364,548	392,261	406,942	429,717	452,492	478,653
Goochland County	24,727	26,979	27,339	29,075	30,810	32,776
Hanover County	109,979	110,106	110,232	114,845	119,459	124,967
Henrico County	334,389	342,946	356,656	371,783	386,910	404,932
New Kent County	22,945	26,105	27,067	29,204	31,340	33,711
Powhatan County	30,333	32,114	32,152	33,875	35,598	37,587
Richmond City	226,610	230,096	245,437	250,726	256,015	263,220
Prince George County	43,010	43,164	49,574	51,663	53,751	56,242
Colonial Heights City	18,170	18,079	18,658	18,834	19,010	19,328
Hopewell City	23,033	22,498	23,139	23,143	23,132	23,301
Petersburg City	33,458	34,096	34,002	33,682	33,361	33,431
Town of Ashland	7,565	8,005	8,142	8,483	8,824	9,231
CVWMA Service Area	**1,245,540**	**1,292,863**	**1,345,540**	**1,401,146**	**1,456,735**	**1,523,374**

* U.S. Bureau of the Census

Source: Cooper Center for Public Service at University of Virginia

2.2 ECONOMIC GROWTH AND DEVELOPMENT

Employment is on a similar trajectory as population growth. Average unemployment in the Region is back down to a little over 3%, similar to Virginia and less than the US average of 3.6%. Employment in central Virginia has grown by over 15% in the last 10 years, an increase over Virginia's average job growth of 12% for the same period. The Region has recovered from the jobs lost in 2020 and gained 44,000 more jobs in addition. Jobs growth is mostly centered in the rural and suburban jurisdictions. Employment growth in Virginia is expected to be about 4.5%, similar to national growth projections of 4% in the next decade. Housing has seen tremendous growth since the CVWMA's inception and in recent years, the area has seen significant development in multi-family and retirement housing.

A lower cost of living and government incentives makes this Region attractive to businesses. The Greater Richmond area is headquarters to 5 Fortune 500 companies and another 6 Fortune 1000 companies. Continued influx of residents will naturally lead to increased jobs, particularly health care, education, construction, technology, retail and food service.

SECTION 3: GOALS AND OBJECTIVES

The goals and objectives of the Plan are guided by the CVWMA's 20-year Strategic Plan, adopted by the CVWMA Board of Directors in 2022, which incorporates Virginia Department of Environmental Quality (DEQ) planning requirements and the adopted hierarchy of solid waste management strategies:

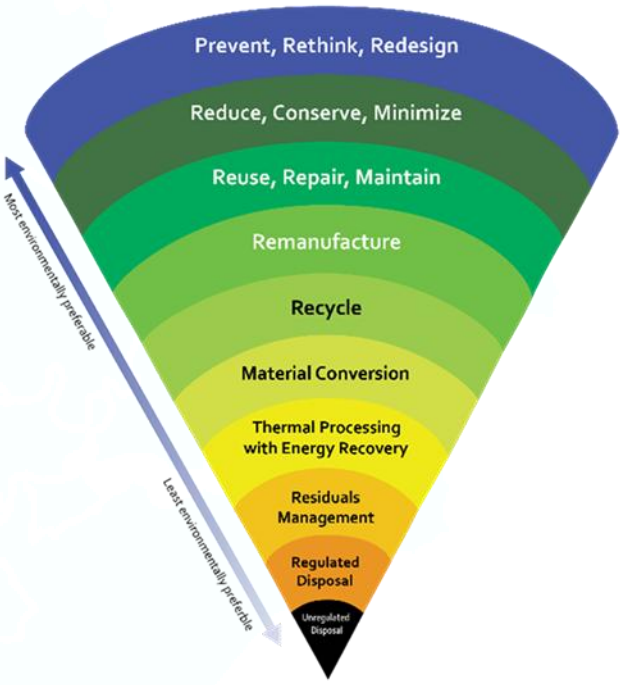
- Source Reduction
- Reuse
- Recycling
- Resource Recovery (Waste to Energy)
- Incineration
- Landfilling.

3.1 CVWMA STRATEGIC PLAN

The CVWMA Strategic Plans adopted a more comprehensive Sustainable Materials Management Hierarchy (SMMH), a systematic approach to using and reusing materials over their entire life cycle. This approach acknowledges that no single management strategy is suitable for all materials and waste streams and emphasizes '*using less.'*

Vision: *To be the recognized leader in regionally sustainable waste management practices that protects the environment.*

Mission: *Foster regional collaboration to provide planning, resources & education in order to reduce, reuse, recycle and manage solid waste for our 13 jurisdictions.*



Goals and Objectives:

Goal # 1: Waste Diversion – Increase recycling rate to 80% (DEQ Recycling Rate Report), while exploring and implementing alternative options to landfilling non-recyclable waste.

Objectives:

- Engage in waste reduction and reuse strategies.
- Increase recycling of existing and new commodities.
- Explore innovative technologies as alternatives to landfilling for non-recyclable waste that contribute to a circular economy.

Goal #2: Customer Service – Ensure positive customer experience by providing 24/7 access to customer service.

Objectives:

- Improve the overall customer experience.
- Increase resolution time.
- Implement multi-faceted communication system balancing human interactions with more immediate, digital resolution.

Goal #3: Education – Provide and expand education services based on SMMH to meet the needs of schools, local governments and citizens in all localities.

Objectives:

- Build a comprehensive education and outreach strategy around SMMH.
- Improve the CVWMA.com user experience.
- Increase CVWMA's brand awareness.

Goal #4: Multi-Family Recycling – Increase access to recycling services to multi-family units.

Objectives:

- Ensure recycling infrastructure is planned for and recycling is provided in all new development.
- Increase convenient access to recycling in existing multi-family complexes.

Goal #5: Economic Development – Spur regional economic development opportunities to support the SMMH through education and research.

Objectives:

- Educate state/local economic development officials on sustainable materials management hierarchy.
- Learn from economic development authorities their expectations and processes and research economic development opportunities.
- Help identify needs and strategies to attract businesses that support the SMMH.

3.2 GOALS FOR THE REGIONAL SOLID WASTE MANAGEMENT PLAN OBJ

A comprehensive, integrated system of solid waste management in the Central Virginia Waste Management Authority Service Area that supports the overall CVWMA Strategic Plan, achieves the specific service, health and safety, financial, environmental and institutional objectives for each member, yet balances public values in a manner that brings maximum benefit and public service to the citizens of the Service Area as a whole. The following goals and objectives were used in the development and are the foundation of the CVSWMP:

1: To establish and maintain an ongoing planning and plan implementation process to meet current and future needs for the Service Area based on the CVWMA's adopted Sustainable Materials Management Hierarchy (SMMH), which more than addresses the state's adopted hierarchy of waste management strategies.

2: To assist in meeting the solid waste management needs of the Central Virginia Waste Management Authority Service Area and the individual member localities through the year 2044 in an efficient, cost-effective, reliable and equitable manner, while providing adequate flexibility in meeting unforeseen needs and integrating new and innovative processes.

3: To continue to meet and exceed the State mandated recycling goals for the CVWMA Service Area.

4: To secure maximum public support for the regional solid waste planning and implementation process through public participation and education programs.

5: To support and encourage public and private partnerships in meeting solid waste management.

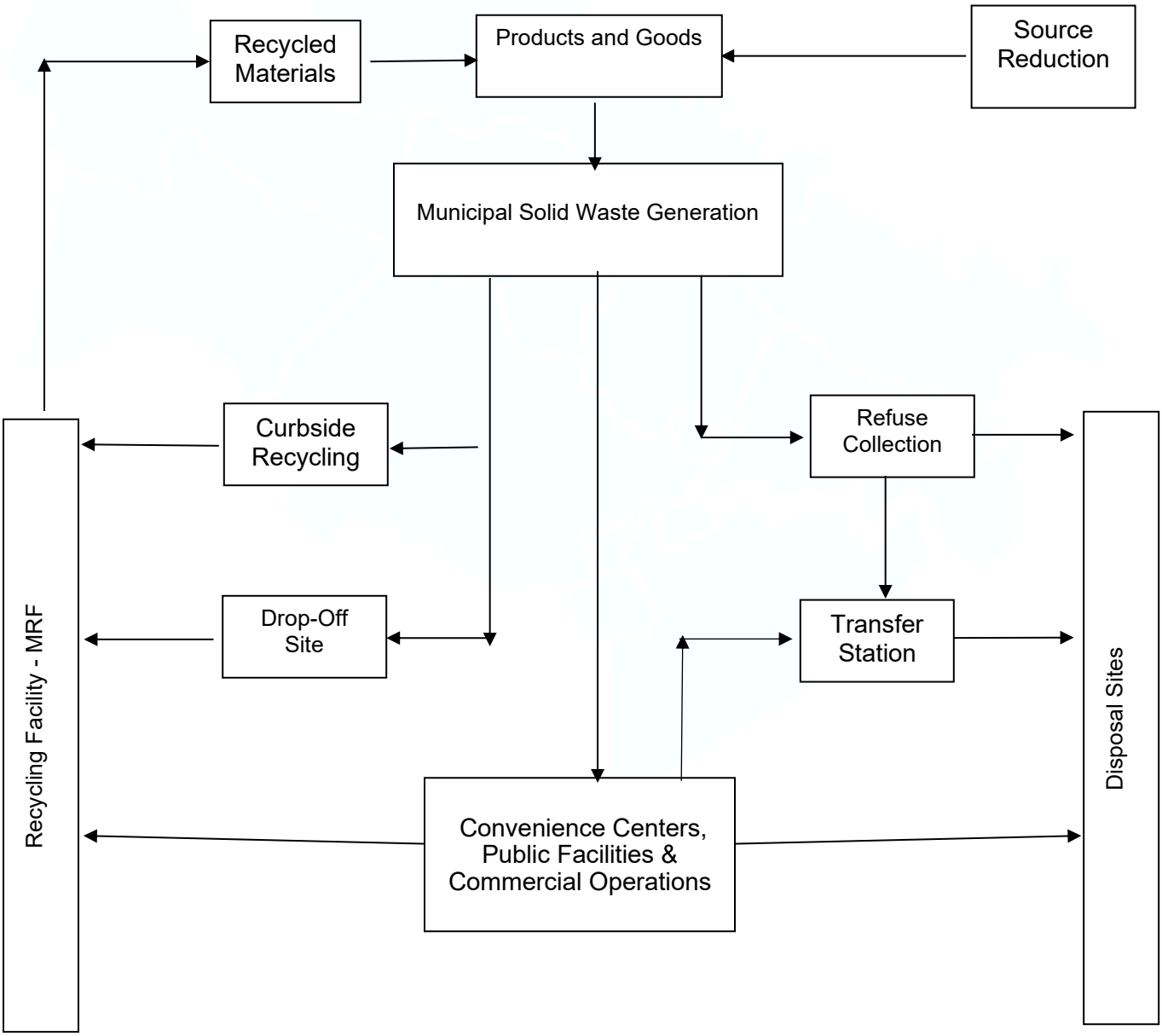
SECTION 4: EXISTING SOLID WASTE MANAGEMENT SYSTEM

In central Virginia, solid waste is managed by numerous public and private organizations and by facilities both in and outside the CVWMA Service Area. There is no central database or mandatory reporting requirements in Virginia for solid waste generation within this specific Region.

A description of the current programs and facilities comprising the existing solid waste management system within the Service Area is provided herein, including waste reduction efforts, reuse, recycling, and disposal. These public and private sector systems and facilities represent the existing or baseline conditions for evaluating the area's solid waste management needs.

The below Chart depicts the waste and recycling system and flow in the Region. This Section addresses the existing solid waste management system based on the waste management hierarchy.

Chart 2: CVWMA Solid Waste Management Process



4.1 SOURCE REDUCTION AND REUSE ACTIVITIES

Source reduction includes all activities and programs that result in waste minimization. Reuse is a reduction strategy in which a product, after its initial use, is reused for the same or a new purpose without undergoing significant reprocessing.

Waste reduction and reuse programs in the Service Area include:

- Plastic Bags -Several area supermarkets provide and encourage the use of reusable grocery bags and prioritize the use of paper grocery bags over plastic bags.
- Food Waste - Grocery stores participate in local food donation programs of items that have expired and/or are not sellable but are safe to consume. Some pre-consumer food waste is used as a feed supplement for animals. Some area supermarkets in the area also collect and compost their expired food waste.
- Hangers - Some dry cleaners reuse and recycle metal and plastic clothes hangers and reuse it's cleaning solvent.
- Textiles - Traditional donation and sale of used textiles occur throughout the Region through charities such as Goodwill, Salvation Army and many religious organizations. Online platforms are used by many for the sale of used clothing, shoes and other textiles. In addition, CVWMA provides for collection of textiles at many convenience centers around the Region through a contract with Goodwill.
- Furniture - There are many outlets for used furniture and household items for sale or donation in the Region. Home goods are sold on online sites as well as many antique and consignment stores throughout the Service Area. Caritas collects used mattresses, various furniture and household items for setting up housing for those in need.
- Building Materials and Tools – Tools and other building materials, such as flooring, lumber, masonry supplies, latex paint etc. are being reused through Habitat for Humanity.
- Art Supplies - Scrap Creative Reuse is a business in Richmond that sells used art supplies (yarn, unused paint, brushes and more).
- Zero Waste & Refill Shops – refilling bottles of items normally used in the home (laundry detergent, shampoo, soap and other products) reduces the need for disposable plastics. Less Than – Richmond and Eco Inspired are examples of refill stores in central Virginia.
- Repairs – business, such as Repair Café, are new opportunities offering residents meeting places to repair items such as clothing, furniture, appliances, bicycles, toys, etc. These meeting places provide tools, materials and DIY books for people to repair broken or damaged items.

No comprehensive data is available on quantities or tonnages of materials not generated or reused within the Service Area. Standardized methods for quantifying source reduction and reuse activities are not available.

Education and outreach activities are essential to accomplish a significant level of waste reduction within the Service Area. Source reduction and reuse are an integral part of CVWMA's education programs. Also, many litter control and recycling committees in the Service Area also assist in education efforts in schools, at events and various community groups.

4.2 RECYCLING

Regional cooperation is necessary for the success of CVWMA programs. The CVWMA is committed to providing quality regional programs for member localities to choose from that are accessible, convenient, and cost-effective. Recycling processing and marketing in the Region is managed by the private sector and through public-private partnerships.

4.2.1 Municipal Recycling Programs

Residential and Drop-Off Recycling Programs **-** Traditional household recyclables, such as cardboard (OCC), mixed paper, aluminum and steel cans, glass bottles and jars, plastic bottles and containers and cartons are collected curbside and/or at various drop-off sites around the Region. The CVWMA manages residential recycling in 8 jurisdictions via a contract with TFC Recycling, serving nearly 200,000 households. The program began in 1991 as a pilot with 19,700 homes in 7 localities, expanded to approximately 300,000 homes in 9 localities. In 2023, Chesterfield County dropped the CVWMA curbside recycling program in favor of a private sector subscription program where households contract directly with a private company for recycling services. Similar subscription programs are also provided by private companies in the more suburban areas of New Kent, Powhatan and Prince George Counties. CVWMA provides service to portions of Goochland and Hanover Counties, and private companies also provide services on a subscription or neighborhood basis.

Recyclables are collected every-other-week in the CVWMA program. The program started out using 18-gallon bins collected weekly or bi-weekly. In 2012, Colonial Heights was the first CVWMA locality to move to the large 96-gallon carts for recycling collection. Ashland and Richmond followed in 2013 and 2015 respectively. Curbside recycling began in Petersburg and Hopewell with 96-gallon carts in 2013 and 2014 respectively. In 2023, the Authority rolled out 96-gallon carts to Henrico, Hanover and Goochland homes in the program resulting in all eligible single-family homes and some townhomes can utilize the larger recycling carts. The small bins are still used in townhomes and condo units that are part of the residential service.

CVWMA provides drop-off recycling through a contract in 8 jurisdictions utilizing roll-off and front-end load containers for collection and hauling. Charles City, Chesterfield and Prince George Counties provide drop-off recycling through separate agreements with private entities. The Town of Ashland residents can utilize drop-off centers in Hanover County. The program is also provided to many public facilities, including schools, public safety buildings, animal shelters, etc.

The current CVWMA program consists of 40 roll-off containers at 17 sites and 154 front-end load containers at 56 sites across the Region. Charles City County provides recycling collection at 3 convenience centers and Chesterfield County provides recycling at two convenience centers and seven parks. Prince George provides recycling at one convenience center and at the government complex. The CVWMA sites collect the same materials as in the residential recycling program.

Both residential and drop-off recycling programs collect recyclables mostly in a single stream. Some sites collect paper and cardboard separate from commingled containers. In the CVWMA programs, the same materials are collected in both programs:

- Old Corrugated Containers (Cardboard)
- Mixed Paper
- Aluminum and Steel Cans
- Glass Bottles and Jars
- Plastic bottles, tubs and containers
- Cartons

Table 2: Locality Recycling Collection Activities

	Public Curbside Collection	Private Curbside Collection thru Public Contract	Private Curbside Contract	Convenience Center / Drop Off Sites
Ashland		X		
Charles City				X
Chesterfield			X	X
Goochland		X	X	X
Hanover		X	X	X
Henrico		X	X	X
New Kent			X	X
Powhatan			X	X
Richmond		X		X
Colonial Heights		X		X
Hopewell		X		X
Petersburg		X		
Prince George			X	X

4.2.2 Other Recycling

Special wastes are those that require special handling or need to be separated from traditional household recyclables to be recycled. The collection of these wastes and recyclables in the Region is handled by both the public and private sectors. Jurisdictions handle many of these materials at public convenience centers through public-private contracts through CVWMA or the locality. Private companies also handle these wastes directly. These materials include:

Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs) – CFCs and HCFCs are removed from refrigerant containing units (e.g. refrigerators, freezers, air conditioners, dehumidifiers) that are taken by the public to designated convenience center and transfer station sites within the Region. The recovered refrigerant is recycled for reuse and the appliances are handled as scrap metal.

Used Motor Oil: Area citizens can take their used motor oil to designated drop-off sites where they pour the used oil into storage tanks or drums. A contractor collects and processes the used oil. Many businesses in the Region such as auto repair facilities that generate used oil also collect and recycle it with a private contractor of their choosing.

Antifreeze: Drums or tanks are provided at designated drop-off sites within the Region for citizens to dump their used antifreeze. Used antifreeze on an as-needed basis, removes the contaminants to include water and recycles and re-markets the resulting product as antifreeze. Many businesses in the Region such as auto repair facilities also collect and recycle it with a private contractor of their choosing.

Waste Tires: Area residents may deliver used tires of all types to designated drop-off sites within the Region. Businesses such as auto repair shops recycle tires. The tires are collected and recycled by private

contractors.

Lead-Acid Batteries: Lead-Acid batteries of all sizes are collected from citizens at specified drop-off sites within the Region. A private contractor who packages and ships the batteries to smelters where they are recycled collects the batteries.

Scrap Metals (including White Goods): Metals including white goods / appliances are collected from residents at some municipal drop-off sites and transfer stations. The metals are then taken to local contractors who process the metals and market the resulting bale or shred to the appropriate ferrous and non-ferrous markets.

Used Oil Filters: Citizens take used oil filters to drop-off sites throughout the Region and deposit them in 65-gallon containers. When the containers are full, they are picked-up and replaced with empty containers by a private contractor. The oil filters are then shipped to a processor where the remaining oil is recovered and recycled, and the filters are processed as scrap steel.

Propane Tanks: Citizens can take used propane tanks to drop-off sites throughout the Region. The CVWMA works with localities to collect and recycle used propane tanks. These tanks are refurbished and reused. If tanks are not reusable, they are cut up and the metal is recycled.

Electronic Waste: CVWMA has a contract for recycling of electronic waste such as computers, monitors, TVs, laptops, and basically 'anything with a plug.' Many jurisdictions hold periodic events to collect and recycle this material, and some localities provide ongoing collection of electronic waste. Virginia requires manufacturers take back certain used electronic equipment from Virginia residents for recycling at no cost.

Fuel Blending Waste: Materials such as paint, varnish, stains, paint thinners, mineral spirits, turpentine, gasoline and other similar flammable solvents can be accepted at many of the locality's convenience centers. A private contractor will collect this material in 55-gallon drums or special events and use it in a cement kiln for energy.

Mattresses: Currently most mattresses are being landfilled. Hanover County is currently shredding mattresses before landfilling. CVWMA is working with a contractor for the collection and recycling of mattresses at various convenience centers and drop-off sites around the Region. The City of Richmond is the first to collect mattresses for recycling at quarterly events.

Organics: Yard waste is collected at area convenience centers and ground into mulch for residents or marketed. Some localities provide separate leaf collection at the curb, either vacuumed or bagged. Currently, some private companies are collecting food scraps for compost. The City of Richmond is piloting a food waste composting program. Food scraps are collected at community gardens and other sites around the City and composted. The resulting compost is being used in City landscaping projects.

Table 3: Materials Recycled by Locality

Commotity	Charles City	Chesterfield	Goochland	Hanover	Henrico	New Kent	Powhatan	Ashland	Richmond	Colonial Heights	Petersburg	Hopewell	Prince George
Mixed Paper	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Old Newsprint	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PET/HDPE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Aluminum Containers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Steel Cans	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Waste Tires		✓	✓	✓	✓	✓	✓		✓		✓		✓
Used Oil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Oil Filters		✓	✓	✓	✓	✓	✓		✓	✓			
Antifreeze	✓	✓	✓	✓	✓	✓	✓		✓				✓
White Goods		✓	✓	✓	✓	✓	✓		✓			✓	✓
Propane Tanks		✓	✓	✓	✓	✓	✓		✓			✓	
Batteries		✓	✓	✓	✓	✓	✓			✓		✓	✓
Electronics		✓	✓	✓	✓	✓	✓		✓				
Mattresses									✓				

4.2.3 Privately Sponsored Recycling Programs

Various commercial recycling collection activities are carried out by the private sector within the CVWMA Service Area. As new programs are constantly being developed and implemented and older programs expanded and modified, for the most up-to-date information, the reader is advised to contact the private operators directly or the CVWMA staff.

Commercial recycling programs within the Region exist for newsprint and other paper products, aluminum and other metals, tires, propane tanks, used oil, antifreeze, batteries, textiles and electronic waste. Several buy-back centers pay individuals and groups for recyclables, while others accept donations of these materials.

There are 2 privately owned Material Recovery Facilities (MRF) in the Region that accept household recyclables (cardboard, mixed paper, aluminum, glass and plastic bottles and containers and cartons). Some private waste haulers provide curbside recycling collection service to their customers in addition to curbside refuse collection in Chesterfield County and some suburban areas of Goochland, Hanover, New Kent, Powhatan and Prince George Counties. Private haulers also provide some curbside collection in townhomes and condominiums where curbside collection is feasible.

Document shredding has been added to the list of needs of the citizens in central Virginia. There are several companies in the area that provide on-site document shredding, and many jurisdictions have added this service to events.

4.2.4 Public Education and Outreach

CVWMA offers public education and outreach programs so that the Region can meet state mandates for recycling and so that residents are encouraged to adopt sustainable waste management practices.

A variety of communication strategies are used to reach the public. Messages and media often complement one another, resulting in a strong communication "footprint" for the Authority.

CVWMA.com is the information hub for all authority programs. The site is managed in-house with an eye toward simplicity. Web analytics show that a majority of site visitors are seeking information about collection schedules and recycling rules. Sixty-five percent of the web traffic is from a mobile device.

The website also houses the CVWMA Customer Portal. Residents may use this interface on their computer or smartphone to look up collection days by address, enter work orders and request new containers.

CVWMA public meeting dates and agendas are posted to the website, as are news releases and occasional articles about waste reduction, reuse and recycling. CVWMA.com receives approximately 375,000 pageviews per year.

Waste Reduction News is the CVWMA e-newsletter. The newsletter features original content about waste reduction and recycling. Subscribers receive program updates, articles and tips, as well as a calendar of upcoming special recycling events. As of September 2024, the e-newsletter had 17,100 subscribers and an average open rate of around 50 percent.

CVWMA uses social media to keep followers engaged and to target specific audiences when needed. A portion of the marketing budget is used for paid social media outreach. The authority is on **Facebook, Instagram, Nextdoor, LinkedIn and YouTube**.

Education and outreach are not limited to digital materials only. CVWMA develops and distributes a variety of print products to keep its programs top of mind — i.e., "something people can put on their refrigerator."

The **Recycling Collection Calendar** is direct mailed to every home that is eligible for the residential recycling program. The calendar includes a list of accepted and non-accepted materials for recycling. Nearly 200,000 calendars are mailed annually. The calendar is CVWMA's most recognizable and widely

known outreach piece. Residents anticipate it every December.

Other print collateral includes rack cards, magnets, fliers, posters and coloring pages. These materials serve as a reminder of CVWMA programs and help to reinforce the authority's brand.

CVWMA avoids giveaways that will have little use or quickly end up in the trash. Giveaways are carefully selected and typically made from recycled materials. Pencils, pens, rulers, beverage cozies and cups, bags and jar openers are some of the giveaways CVWMA has offered recently.

In-person programming is an important aspect of the authority's outreach strategy. CVWMA conducts more than 100 programs each year at schools and events in the community. School programs are tailored for the grade level and align with Virginia Standards of Learning. CVWMA staff frequently present at club and neighborhood meetings. In-person communication is among the most effective forms of outreach, as it allows for face-to-face discussion and builds consumer trust.

Partnerships play an important role whether through information sharing, special projects or events. CVWMA's diverse partnerships in education and outreach include local and state governments, boards and commissions, media outlets, nonprofits, recycling and waste contractors, schools, universities and informal educators, and service clubs.

CVWMA uses its marketing budget for **paid advertising** with local and regional media outlets to reach broad audiences with messages that impact the entire Region. Through these efforts, CVWMA provides the public with timely information about recycling opportunities, accepted commodities and program changes, as well as enhancements to its operations.

Knowledgeable **customer service agents** are available to assist residents with questions about recycling. The CVWMA Recycling Hotline, 804-340-0900, is staffed Monday through Friday from 7:30 a.m. until 5:00 p.m. In addition, phone queue messages provide callers with the up-to-date information they are seeking without needing to speak with a representative. CVWMA keeps up with technology and adds enhancements to the call center systems to accommodate increased information tailored to individual jurisdictions.

4.3 WASTE COLLECTION, TRANSFER AND DISPOSAL

4.3.1 Municipal Solid Waste Collection Programs

Municipal solid waste collection in the 13-member jurisdictions of the CVWMA ranges from no curbside collection to public and private subscription services to municipality provided collection. Table 4 and paragraphs below describe current waste collection activities (2024) in each locality.

Table 4: Municipal Solid Waste Collection Services by Locality

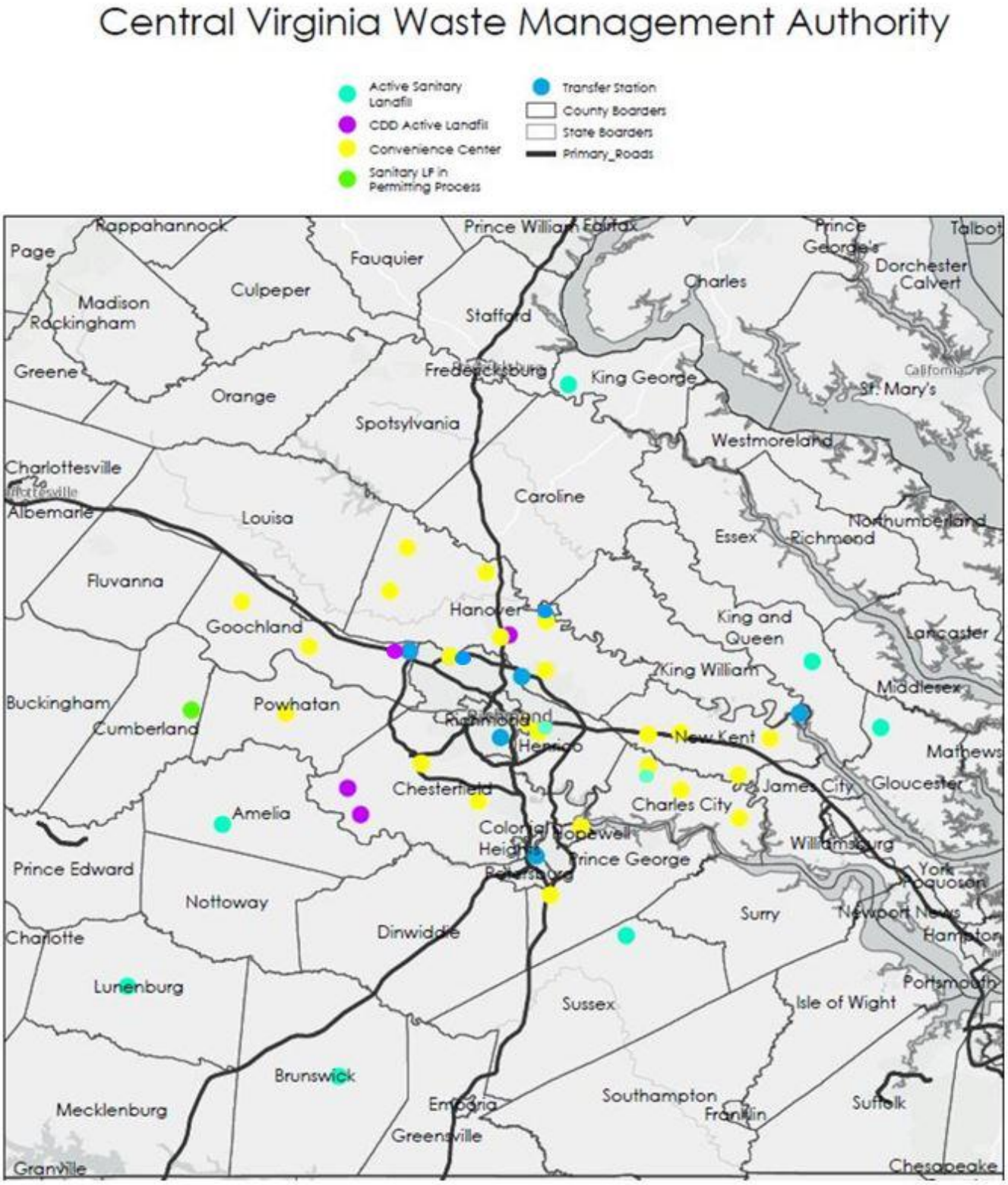
	Public Curbside Collection	Private Curbside Collection thru Public Contract	Private Curbside Contract	Convenience Center / Transfer Station	Leaf & Bulky Item Curbside Collection
Ashland		X			X
Charles City			X	X	
Chesterfield		X	X	X	
Goochland			X	X	
Hanover			X	X	
Henrico	X		X	X	X
New Kent			X	X	
Powhatan			X	X	
Richmond	X			X	X
Colonial Heights		X			X
Hopewell		X		X	X
Petersburg		X		X	X
Prince George			X	X	

The City of Richmond and Henrico County provide residential and public facilities waste collection operations. Henrico provides residential collection on a subscription basis. Hanover and Henrico (County use only) Counties and the City of Richmond own and operate a transfer station, where waste is transferred to a private landfill through contractual agreements. The remaining waste and recycling operations are provided by the private sector, either through public/private contracts or direct to residents and businesses. Voluntary citizen drop-offs, primarily convenience centers, throughout the Region account for a portion of waste collected. Private haulers collect nearly all commercial and industrial waste, and the remainder of the residential waste.

4.3.2 Convenience Centers, Transfer Stations and Landfills

MSW and CDD waste are handled via a combination of publicly owned convenience centers, transfer stations both public and privately owned and privately owned landfills in and outside the Region.

Map 2: Map of Solid Waste Facilities



4.3.2.1 Convenience Centers

Most of the member jurisdictions provide convenience center(s) for use by residents that accept MSW and CDD waste (with limitations). The publicly owned convenience centers are listed in Table 5.

Table 5: List of Convenience Centers in the Service Area

SITE	Location
Mount Zion Convenience Center	Charles City County
Mumford Convenience Center	Charles City County
District 1 Convenience Center	Charles City County - Landfill
Northern Area Convenience Center	Chesterfield County – Warbro Rd
Southern Area Convenience Center	Chesterfield County – Landfill Dr
Goochland Convenience Center	Goochland County – Old Landfill
Goochland Convenience Center West	Goochland County – Hadensville Fife Rd
Courthouse Convenience Center	Hanover County – Courtland Farm Rd
Beaverdam Convenience Center	Hanover County – Beaverdam Rd
Doswell Convenience Center	Hanover County – Doswell Rd
Elmont Convenience Center	Hanover County – Lewistown Rd
Mechanicsville Convenience Center	Hanover County – Verdi Lane
Montpelier Convenience Center	Hanover County – Clazemont Rd
Charles City Rd Public Use Area	Henrico County – Charles City Rd
Springfield Rd Public Use Area	Henrico County – Springfield Rd
Hopewell Convenience Center	City of Hopewell – Station Street
Rt. 612 Convenience Center	New Kent County
Rt. 618 Convenience Center	New Kent County
Rt. 634 Convenience Center	New Kent County
Rt. 647 Convenience Center	New Kent County
Powhatan Convenience Center	Powhatan County – Mitchell Rd.
Prince George Convenience Station	Prince George County – Rt. 649
East Richmond Convenience Center	City of Richmond – E. Richmond Rd

4.3.2.2 Transfer Stations

There are three municipally owned transfer stations and three privately owned in the Region.

Table 6: List of Transfer Stations in the Service Area

Hanover County Transfer Station	Hanover County - Courtland Farm Rd
Springfield Rd Transfer Station	Henrico County – Springfield Rd
Richmond Southside Transfer Station	City of Richmond – Hopkins Rd
GFL Transfer Station	Hanover County – Richfood Rd
GFL West Point Transfer Station	New Kent County – Parham Landing Rd
Meridian Tri-City Regional Transfer Station	City of Petersburg – Industrial Dr
SB Cox CDD Transfer Station / MRF	City of Richmond – Williamsburg Rd

4.3.2.3 Landfills

Publicly owned MSW and CDD landfills are non-existent in central Virginia. In 2015, the last of the publicly owned landfill in the Region, Henrico's Springfield Road Landfill closed. All residential and commercial waste generated in Central Virginia is disposed of in private facilities.

Since the last update to the Plan in 2019, two privately owned landfills have closed or are in the process of closing and the capacity of another landfill was significantly reduced and is no longer taking in waste:

1. Shoosmith Sanitary Landfill in Chesterfield County - An expansion of this Landfill into an adjacent quarry was originally approved by the VA DEQ, however, the Article VII/VIII application required by the host community of Chesterfield County was not approved by the Board of Supervisors in July 2018. The outcome of litigation prevents the landfill from expanding into the quarry. Approximately, 33,699,000 cubic yards of capacity has been removed via Amendment 10 to this Plan. (Appendix D1)
2. The Tri-Cities Sanitary Landfill in the City of Petersburg - this Landfill is no longer accepting waste and is in the process of closure. Meridian Waste, the owners of the landfill discontinued accepting waste in late 2018 and the solid waste permit was ultimately revoked by DEQ and the landfill is currently in closure. There was approximately 500,000 tons of capacity remaining at the time of closure. (Appendix D2)
3. The East End Landfill, a CDD landfill in Henrico County does not have the local zoning approval required by the County to operate, thus without local approval cannot continue to landfill CDD waste and is being forced to close. There is approximately 108,500 tons/cubic yards remaining airspace. Appendix D3)

There are 7 permitted landfills currently open and being utilized within the CVWMA Region. Three of the landfills are classified as sanitary landfills and are privately owned and operated. Four of the Region's landfills are Construction, Demolition and Debris (CDD) landfills and all are privately owned and operated. Additionally, seven (7) sanitary landfills outside the CVWMA Region are utilized by contractors hired to haul and dispose of MSW collected at convenience centers and transfer stations within the Region. An eighth landfill is in the early permitting stages and will be located in Cumberland County, about five miles west of Powhatan County off of Route 60.

Table 6 below provides a summary of the type, location, permitted capacity and remaining capacity as of January 1, 2024. Remaining capacity figures listed in Table 6 reflect DEQ reported information for the calendar year 2023. These capacity figures could increase as some of these landfills could modify their permit to expand capacity in the future.

This section also includes a brief description of the major regional landfills being utilized that are within the CVWMA's Service Area and in jurisdictions in close proximity to the CVWMA's Service Area. Appendix C contains a complete listing of active and closed solid waste facilities, including landfills, within the Service Area.

Table 7: Sanitary and CDD Landfills Utilized for Disposal in the CVWMA Service Area

	Landfill Name	Location	Permit Number	Date Permitted	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards as of 12/31/2025)	Estimated Remaining Permitted Life (Years)
Sanitary Landfills in the CVWMA Region							
1	WM Charles City Landfill	Charles City	SWP531	9/1989	45,076,000	20,891,118	34.1
2	BFI Old Dominion Landfill	Henrico	SWP553	4/1993	35,696,679	11,141,245	7
3	Shoosmith Sanitary Landfill *	Chesterfield	SWP587	9/1976	42,101,000	0	0
Construction/Demolition/Debris Landfills in CVWMA Region							
4	623 C/D/D Landfill	Goochland	SWP506	3/1987	30,500,000	8,623,669	6.6
5	Ashcake C/D/D Landfill **	Hanover	SWP574	9/1994	3,066,510	141,561	.5
6	Taylor Road Landfill	Chesterfield	SWP270	7/1979	20,000,000	6,084,018	52
7	Skinquarter Land CDD Landfill	Chesterfield	SWP604	8/2010	7,807,109	5,594,771	15.1
Sanitary Landfills outside the CVWMA Region							
8	Meridian Disposal and Recycling - Lunenburg	Lunenburg	SWP544	11/1992	5,170,277	1,700,592	2
9	WM Atlantic Waste Disposal Landfill	Sussex	SWP562	12/1993	129,498,047	80,636,518	73.7
10	WM Maplewood Recycling & Waste Facility	Amelia	SWP540	6/1992	44,500,000	24,233,786	65
11	Republic Brunswick Landfill ***	Brunswick	SWP583	4/1995	36,150,000	16,070,237	40
12	WM Middle Peninsula Sanitary LF	Gloucester	SWP572	8/1994	42,720,000	24,136,867	37.1
13	Republic King & Queen Landfill	King& Queen	SWP554	6/1993	61,430,000	14,818,906	25
14	WM King George County Landfill	King George	SWP586	8/1995	67,264,758	24,770,612	21

Source of Capacity Figures: Commonwealth of Virginia Department of Environmental Quality Solid Waste managed in Virginia During Calendar Year 2025 Report, October 2026.

*Shoosmith has been inactive since February 2025 and was not required to report to VA DEQ for calendar year 2025. The landfill is in the process of closure therefore the table reflects no remaining available disposal capacity for the region.

** Permitted capacity to be updated upon approval of Amendment 13.

***This remaining capacity is for Municipal Solid Waste only. Does not include incinerator ash or other non-putrescible materials capacity.

Note 1: Remaining Capacity reported in Table 2 is based on self-reported airspace numbers provided to the Virginia Department of Environmental Quality as required by 9 VAC 20-81-80.

Note 2: A private sanitary landfill (Greenridge Recycling and Disposal Facility) to be located outside the Region may be incorporated into this Plan in the future. At the time this Plan was updated, the Green Ridge Recycling and Disposal Facility has not been permitted or constructed.

Sanitary Landfills Facilities in CVWMA Region:

1. **Waste Management of Virginia (WM) Charles City Landfill** is a Sub-Title D landfill owned by the County and operated and maintained by WM under a lease contract with Charles City County. This Facility located approximately 20 miles southeast of the City of Richmond was opened for operation in May 1990 and is located on a property of approximately 600 acres of which 289 acres are used for disposal. The Facility is permitted in ten phases.

   In addition to the waste generated within Charles City County, waste is currently brought to the facility from the City of Richmond's transfer station and from areas outside the Region and the Commonwealth. The Facility provides disposal for MSW, CDD as well as pre-approved, manifested contaminated soils, ashes, WWTP (wastewater treatment plant) and industrial sludges. The Facility does not accept the following waste: whole tires, asbestos containing debris, batteries, electronic component debris, radioactive waste, hazardous waste, waste containing free liquids, drummed waste or any other unapproved waste.

2. **Republic Services Old Dominion Landfill** is located in eastern Henrico County at 2001 Charles City Road. The Landfill is located east of the City of Richmond approximately 2.5 miles west of the Richmond International Airport. Access to the Landfill can be gained from Charles City Road approximately 1.5 miles west of the intersection of Charles City Road and Laburnum Avenue.

   The Old Dominion Landfill is a sanitary landfill primarily serving the metro-Richmond area and central Virginia. Under the terms of the Host Agreement with Henrico County, no MSW can be accepted from outside a 150-mile radius. The Landfill accepts waste material collected from Republic's waste collection operations and from private collectors in the area.

   The property currently owned by Republic Services (formerly Allied Waste and BFI) totals 517.7 acres, of which 226.7 acres have been permitted for waste disposal which includes old Henrico Landfill #3 (HCL3), the Old Dominion Landfill, the expansion area known as the East fill which overlays the old SB Cox Landfill and a portion of the closed BFI Richmond Landfill, and the remaining acreage of the closed BFI Richmond Landfill.

   Republic negotiated with Henrico County for purchase of land east of the existing landfill. The additional parcel is 168.42+/- acres and includes the closed (HCL3) and undeveloped land east of HCL3. This capacity was added to the SWMP in Amendment 2.

   Republic's Old Dominion Landfill provides disposal for MSW, construction waste, demolition waste and debris waste. It is estimated that the Landfill will continue to serve the needs of the County and central Virginia.

3. **Shoosmith Brothers Landfill** is located at 11520 Iron Bridge Road, Chester, Virginia and operates on 506 acres. Although the sanitary landfill is the only active Facility operated by the company, an inactive asbestos landfill is located adjacent to the Facility.

   The original design capacity of approximately 75.8 million cubic yards (~37.9 million tons) included expansion into an adjacent quarry (cells 27 and 28); however, the Article VII/VIII application required by Chesterfield County was not approved by the Board of Supervisors in July 2018. The outcome of litigation prevents the Landfill from expanding into the quarry. Amendment 10 to the Plan removed approximately 33,699,000 cubic yards of capacity as this capacity is no longer available to the Region, leaving 42,101,000 cubic yards of permitted capacity.

   The Landfill intends to continue waste placement operations until the remaining airspace capacity in the existing waste disposal cells is fully consumed; however, this remaining capacity is no longer available for the Region's disposal needs.

Construction, Demolition and Debris Landfills in CVWMA Region:

4. **623 Landfill** is a CDD landfill located at 1961 Ashland Road, Rockville in eastern Goochland County just north of I-64. The Landfill accepts construction, demolition and land clearing debris. It does not accept hazardous waste, MSW, regulated medical waste, sludge, liquid waste or friable asbestos. Additionally, the Landfill added a MRF (early 2014) that can process up to 1,000 tons per day of CDD, MSW and recyclables. At the MRF materials such as cardboard, metals and wood are recovered from incoming loads for recycling. Materials not recovered from incoming loads at the MRF are transferred to an appropriately permitted disposal facility.

5. **Ashcake Landfill is** located at 10022 Ashcake Road, Ashland, VA 23005 and is a permitted 30.4-acre CDD Landfill. This facility serves the Richmond metropolitan area and does not accept out-of-state waste. The Landfill averages 165 tons per day with a maximum intake rate of 500 tons per day.

   This Landfill only accepts CDD waste and includes lumber, wire, sheetrock, brick, shingles, glass, pipes, concrete, paving materials, non-friable asbestos-containing building materials and metal and

plastic construction materials and containers. Debris waste results from land-clearing operations and includes stumps, wood, brush, leaves, soil and road spoils. They also grind yard waste and other inert material such as concrete and stone for re-use. This Facility does not accept municipal solid waste, hazardous waste or industrial waste.

Amendment 8 was approved in 2016 and allowed the Landfill to re-grade approximately 18.5 acres at the top of the Landfill for increased capacity. The Proposed Amendment 13, once approved will allow the Landfill to expand into an adjacent borrow pit within the existing waste management boundaries. The expansion will add 3,000,000 cubic yards of capacity, extending the life of the Landfill by approximately 14 years.

6. **S.B. Cox's Taylor Road Landfill** is owned and operated by S.B. Cox, Inc. The Facility is located on State Route 646 (Taylor Road) approximately 0.7 miles north of the intersection of State Route 602 (River Road) and State Route 646 in western Chesterfield County, Virginia. Access to the site is via State Route 646.

   The Facility property totals approximately 256 acres of which a total of 21.2 acres are currently permitted for disposal. S.B. Cox, Inc. amended the solid waste management facility permit to expand the disposal limits and operation onto adjacent land located south of the existing facility. The expansion increased the disposal limits and disposal volume to approximately 137 acres and 20 million cubic yards, respectively. It is anticipated that development of the expansion area will be sequential, i.e., each cell will be developed to the fullest extent possible prior to moving disposal activities to a subsequent cell.

   This Facility primarily serves the disposal needs of the local area by providing for the disposal of land clearing materials (stumps, brush, branches, logs), waste building materials from construction, remodeling, or demolition projects (brick, block, concrete, plaster, wood, wallboard, pavement, pallets, cardboard, non-friable asbestos containing materials, etc.). Occasionally waste materials resulting from the manufacture of building products are accepted. No hazardous waste is accepted at this landfill.

7. **Skinquarter Land, LLC Landfill** is owned and operated by Skinquarter Land, LLC in Chesterfield County. The Landfill is located at 20701 Hull Street Road in Moseley, Virginia and also serves as a wood recycling facility. Access to the site is via State Route 360.

   The total site consists of 115 acres of which approximately 55 acres of the property is being for CDD operations.

   The Facility will accept land clearing materials (stumps, brush, branches, logs) and waste building materials from construction, remodeling or demolition projects (brick, block, concrete, plaster, wood, wallboard, pavement, pallets, cardboard, non-friable asbestos containing materials, split tires etc.). Occasionally waste materials resulting from the manufacture of building products will be accepted. No hazardous wastes are accepted at this Landfill.

Sanitary Landfills Outside CVWMA Region

Currently four major sanitary landfills in jurisdictions adjacent to the CVWMA Service Area are receiving waste from the CVWMA Service Area. The landfills are located in Lunenburg, Sussex, Amelia and Brunswick Counties.

8. **Meridian Disposal and Recycling Services of Lunenburg** is operated by Meridian Waste Services and is located on 199-acres in Lunenburg County on Route 659 (Old Mansion Road), about 75 miles southwest of Richmond and 60 miles southwest of Petersburg.

   The Facility provides disposal for both in state and out of state wastes including: MSW, CDD, as well as pre-approved manifested contaminated soils, ashes, WWTP (wastewater treatment plant), industrial

sludges and treated medical waste. Waste collected at Meridian's Transfer Station in Petersburg is being transported to this Landfill.

9. **WM Atlantic Waste Disposal Sanitary Landfill** is located in Sussex County (Waverly) approximately 45 miles southeast of the City of Richmond. The facility is located on Route 602, just off US Route 460. The Facility property includes approximately 1,315 acres of which 409 acres are permitted for disposal. The Facility accepts waste via rail from many locations in the northeast part of the United States.

   The Facility provides disposal for both in state and out of state wastes including: MSW, CDD, as well as pre-approved manifested contaminated soils, ashes, WWTP, industrial sludges and treated medical waste. The Facility does not accept the following materials: whole tires, asbestos containing material, batteries, electronic component debris, radioactive waste, hazardous waste, waste containing free liquids, drummed waste or any other unapproved waste.

10. **WM Amelia Landfill (Maplewood)** is located on an 804-acre site in the western portion of Amelia County in Jetersville, Virginia. The Facility is located approximately 35 miles southwest of the City of Richmond and about 45 miles west of Petersburg near US Route 360.

    The Facility provides disposal for both in state and out of state wastes including: MSW, CDD, and asbestos, as well as pre-approved manifested contaminated soils, ashes, WWTP and industrial sludges and treated medical waste. The Facility does not accept the following materials: whole tires, batteries, electronic component debris, radioactive waste, and hazardous waste, waste containing free liquids, drummed waste or any other unapproved waste.

11. **Brunswick Waste Management Facility, LLC** is located in the Southern portion of Brunswick County in Lawrenceville, Virginia, approximately 70 miles south of the City of Richmond and 50 miles south of Petersburg near US Route 58.

    The Facility is permitted with two distinct disposal areas: 1) Northern Solid Waste Disposal Area is an area permitted to accept only municipal solid waste incinerator ash and non-putrescible materials. The footprint of this area is 78.8 acres; and 2) Sanitary Landfill Area provides disposal for both in state and out of state wastes including: MSW, CDD, and asbestos, as well as pre-approved manifested contaminated soils, ashes, WWTP and industrial sludges and treated medical waste. The footprint of this area is 174 acres.

Other Future Disposal Options:

Three additional sanitary landfills outside the CVWMA Region that are also occasional recipients of MSW from the area are the **Middle Peninsula Sanitary Landfill** in Gloucester (#12 in Table 6); **King and Queen Landfill** (#13 in Table 6); and the **King George County Sanitary Landfill** in King George County (#14 in Table 6).

In addition, the **Green Ridge Recycling and Disposal Facility** is in the permitting process and once permitted will be located on the eastern edge of Cumberland County, approximately 5 miles from the Powhatan border off of Route 60. This is about 45 miles west of Richmond and about 60 miles north and west of Petersburg. The capacity of the Landfill is expected to be 54 million cubic yards or 27 million tons of MSW. The daily maximum disposal limit is projected to be limited to 1,500 tons/day.

SECTION 5: SPECIAL AND OTHER WASTE

Certain wastes are more challenging to handle or collect or require special or unusual disposal methods. A description of handling and disposal practices is presented herein, including a discussion of any disposal issues.

5.1 HOUSEHOLD HAZARDOUS WASTE (HHW)

Virginia Waste Regulations 9VAC20-81-10 defines household hazardous waste as: "*any waste material derived from households (including single and multiple residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas) which, except for the fact that it is derived from a household, would otherwise be classified as a hazardous waste in accordance with 9 VAC 20-60*," which incorporates the regulations of the United States Environmental Protection Agency (EPA) set forth in 40CFR Part 260.

Household hazardous wastes are typically found in such products as household cleaners, pesticides, herbicides, paints, solvents, pool chemicals, batteries, thermometers, etc.

CVWMA provides HHW collection and disposal programs for member localities through contracts with private companies. The CVWMA also participates in Virginia's cooperative procurement (eVa) on behalf of member localities. Several localities in the Region provide ongoing collection at Convenience Centers for materials such as paint, varnish, stains, paint thinners, mineral spirits, turpentine, gasoline and other similar flammable solvents. A private contractor will collect this material and use it in a cement kiln for energy. Chesterfield County is the only locality that routinely collects at one of its convenience centers pesticides, herbicides, mercury and other extremely hazardous materials. Several localities schedule periodic HHW collection event days throughout the year.

Education and outreach is particularly important regarding the hazards of disposing potentially hazardous wastes down the drains, on lawns and in storm drains. The general public is often unaware of the hazardous properties of items used in the household on a regular basis. Information is widely available regarding more benign, environmentally desirable substitutes for the more toxic substances, identification of potentially hazardous components of various products, and identification of safer disposal methods for residues and containers for residents to consider.

Few reliable statistics are available to estimate a per capita generation rate of household hazardous wastes. An approximate amount of these materials make up one percent or less by weight of the municipal solid waste stream.

5.2 MEDICAL WASTES

Medical wastes are generated by numerous community facilities including hospitals, physician's offices, dentist's offices, nursing homes, clinics, laboratories, veterinary facilities, and blood banks. "Sharps" (e.g., scalpels, needles, and surgical instruments), bandages and medical gloves, and other materials contaminated with body fluids or body parts are considered medical wastes.

The Virginia Regulated Medical Waste Management Regulations require Regulated Medical Waste (RMW) to be specially packaged, labeled, and inventoried. These wastes must then be incinerated within a specified temperature range and time period, or steam sterilized. Ash and sterilized trash are sent to landfills for disposal. Since the regulations have gone into effect, many Virginia hospitals have stopped incinerating on site and have contracted for waste disposal services. The listing of active solid waste facilities in Appendix C includes facilities with permitted RMW incineration operations.

Individuals that generate needles at their home for use in the treatment of sickness such as diabetes may dispose of the needles by following the residential sharps guidance provided by the VA DEQ. This essentially states the user should place the used needles in an FDA-cleared sharps container designed for

home use or an empty rigid or heavy-duty plastic container such as detergent or bleach bottles, seal with tight fitting lid or screw cap and wrap with tape around the lid.

5.3 APPLIANCES / WHITE GOODS

In waste management terminology, used refrigerators and other common home appliances are termed "white goods." Components of some white goods can contain compounds that if disposed of improperly, may pose a threat to natural resources. Such compounds include polychlorinated biphenyls (PCBs), which may be found in the capacitors and lighting ballasts of refrigerators, freezers, fluorescent lights, air conditioners, microwaves and some other appliances manufactured prior to 1980, chlorofluorocarbons (CFC/HCFCs) found in Freon in air conditioners, refrigerators and freezers, and mercury switches.

Capacitors may be landfilled if they are not leaking. Recycled white goods are usually shredded resulting in metal and a by-product produced from shredding called "fluff". If the “fluff” contains greater than 50 parts per million PCBs, the EPA has ruled that this material must be disposed of as a hazardous waste, adding to the expense of disposal. The Clean Air Act Amendments require that CFC/HCFC containing devices must have this material removed and recycled prior to the device being recycled or disposed of. The CVWMA has programs for the recycling of white goods and for the removal of the CFC/HCFCs.

Many retailers in the Region accept an old appliance from a household when a new one is purchased.

5.4 AUTOMOBILE BODIES

Inoperable automobiles are composed largely of steel, iron, aluminum and plastics. Automobile manufacturers continue to reduce vehicle weight through the use of plastics, aluminum and magnesium, as a means of addressing environmental and fuel efficiency issues.

For many years, steel and iron from junk automobile bodies have been recycled. The aluminum used in cars has a high market value, and it is usually recycled when the vehicle is scrapped. Approximately 95 percent of all vehicle parts, including used motor oil, batteries, and other components are recyclable.

The disposal of auto fluff created in the shredding process can sometimes pose problems and it can be difficult to find a landfill facility willing to accept fluff. Depending somewhat on lack of thoroughness during the stripping and recycling processes, some fluff may be classified as hazardous waste.

Recycling plastic automotive components is currently hindered because of several factors. The primary hindrance is that a single automobile may contain 20 different types of plastics in its various components. The effort needed to identify and separate the different types of plastics has made recycling less than cost-effective within the salvage industry. Fortunately, less than five percent of each salvaged vehicle produces plastic "fluff" material that is usually landfilled or incinerated. Furthermore, manufacturers are interested in demonstrating the recyclability of all automobile parts, largely due to public pressure. Recycling of plastic and metals from automobiles may increase throughout the planning period.

Inoperable automobiles are a substantial problem when abandoned on streets and in the rural landscape. In addition to detracting from the landscape, they can pose safety hazards to children and animals. Vector problems can develop and environmental pollution can occur if oil, gas, lead or battery acid leak into the environment. The removal of vehicles from improper disposal areas may also be quite costly.

It is difficult to estimate the number of stripped automobile bodies generated in the CVWMA Service Area each year. As noted above, eventually 99 percent of the stripped hulks are recycled. For the purposes of this Plan, the assumption was made that the generation rate for stripped hulks approximates the recycling rate on an annual basis.

5.5 WASTE MOTOR OIL

Used motor oil poses a threat to the environment because improper dumping is prevalent and as little as one quart of oil can contaminate up to one million gallons of drinking water. Oil can harm plant and animal

life as well. It is illegal to dump oil into any waters, storm drain systems or on land within the Commonwealth. A large portion of the waste motor oil generated in the CVWMA Service Area is recycled as discussed in Section 4.

The CVWMA provides programs for the collection of used oil at convenience centers in the Region as well as locality facilities operations. Some service stations pay a fee to have the waste motor oil collected. However, some stations have been able to sell the used oil to commercial collectors.

5.6 ELECTRONIC WASTE

Electronic waste includes devices like computers, smartphones, TVs, etc. TVs and monitors, particularly those with CRTs (Cathode Ray Tube) are a challenge and costly to recycle. CRT TVs and monitors require significant manual labor to disassemble to be able to obtain material that has resale value. In addition, the lead content in the CRT and other heavy metals in other electronic equipment requires consideration of employee safety and protection of the environment. With the evolution of technology contributing to shorter life span of various electronics, more and more electronics are entering the waste stream. In addition, data security is a significant concern when disposing of electronic waste.

Several of the CVWMA member jurisdictions collect electronics at drop-off locations and special events from residents through a CVWMA contract. Some retailers such as Best Buy provide take-back programs of various electronic equipment from the public.

Schools and public facilities also utilize the CVWMA contract to recycle laptops and other computer equipment. Large generators of electronic waste, such as data centers, are generally recycling this material as there is a large market for it.

5.7 BATTERIES

The most common kind of household battery is the alkaline battery, which no longer contains mercury. These batteries are not currently recycled while mercury and silver oxide "button cells" and nickel-cadmium (Ni-Cad) rechargeable batteries are recycled to some extent. The CVWMA continues to operate a rechargeable (nickel-cadmium, Nickel Metal Hydride, Lithium Ion and Lead Acid) battery recycling program through a battery recycling contractor.

Rechargeable batteries have a much longer life than alkaline batteries; however they do contain cadmium, a toxic heavy metal.

In Virginia, lead-acid automotive batteries are banned from sanitary landfill disposal and may not be disposed of in municipal solid waste landfills. Each automobile battery contains approximately 18 pounds of lead and approximately a gallon of sulfuric acid. Used batteries returned to gas stations and other businesses are sent to recycling facilities. Unfortunately, some used batteries are improperly dumped. Once in the environment, there is the possibility that the lead and acid contents will leak into surface and groundwater, potentially poisoning wildlife and tainting public water supplies.

Lead acid batteries are collected at convenience centers and recycled through a contractor. Battery retailers and automotive shops must accept used automotive batteries of the same type and in the same quantity as sold to the customer.

Lithium-ion batteries have become more prevalent in recent years, particularly in the evolution of electric vehicles and are a concern. Due to the instability of lithium, fires caused by the batteries containing lithium have become more frequent. The CVWMA accepts these types of batteries for recycling on a limited basis from drop-off locations. The batteries are also accepted at CVWMA electronic collection events.

5.8 WASTE TIRES

Whole tires are not allowed in landfills per the Virginia Waste Regulations. Within the CVWMA Service Area, most transfer stations and landfills charge for the disposal of scrap tires, with the exception that

some residents may dispose of a minimal number at no charge.

CVWMA provides localities with a tire recycling program for tires that are dropped off at convenience centers or collected at events from residents. Some more rural localities hold periodic tire amnesty events for the collection of tires in order to prevent dumping.

Most waste tires are handled through tire dealers and automobile service stations when tires are replaced on vehicles.

5.9 WOOD AND YARD WASTE

Wood, brush, leaves, grass, and other arboreal materials make up a large percentage of the waste stream. This material accounts for about 15% of MSW by weight according to EPA. This type of waste is composed of materials that can frequently be recycled through natural processes, like composting. Some grinded wood waste is also used for boiler fuel.

Presently the CVWMA has contracted with several contractors for wood waste and yard waste processing. These contractors grind the wood waste and yard waste that localities have collected or have had dropped-off by residents. Most localities allow residents to avail themselves of the resultant grindings for use as mulch.

Hanover County operates a yard waste composting facility. Several localities collect leaves, bagged and vacuumed during high volume seasons and most accept leaves and yard waste at convenience centers. Some leaves are used by farmers.

Numerous private companies accept and grind wood waste and leaves into mulch.

5.10 CONSTRUCTION, DEMOLITION AND DEBRIS (CDD)

CDD consists of waste generated during construction, renovation and demolition projects. This waste category includes construction and demolition rubble, concrete and similar inert materials (that can go into locally approved clean fill areas) and large diameter tree stumps. Other organic wastes, such as wood and brush, are frequently discarded commingled with construction materials. A description of the disposal practices for these additional organic materials is found above in the Wood and Yard Waste section (5.9) of the Plan. Construction and demolition waste may include bricks, concrete, shingles, steel, treated and untreated wood, sheetrock (also known as drywall), windows, vinyl and plastics, and plaster.

Construction and demolition debris may contain some contaminants, including asbestos, lead-based paint, fiberglass and old fuel tanks, may be present which can cause problems. CDD landfills are less heavily regulated than sanitary landfills, and there are fewer restrictions on construction and operation.

Per DEQ's *2024 Annual Solid Waste Report (Calendar Year 2023)*, over 4 million tons of CDD waste was managed in Virginia. Using this figure, it is estimated that approximately 535,000 tons of CDD waste will be generated in 2025. According to the same report, about 60% was landfilled. The rest is managed on site, recycled, burned, or disposed of in clean fill area of landfills.

5.11 INCINERATOR ASH

Ash is the solid residue remaining after combustion. It may contain organic, as well as inorganic components. Typically, there are two types of ash: bottom and fly. Bottom ash is made up of larger pieces of matter left after combustion. It comprises 75 to 90% of the total ash produced. Fly ash makes up the balance. This ash is subject to collection through air pollution control equipment on exhaust gases prior to discharge into the atmosphere.

Hazardous ash must be disposed of in a hazardous waste landfill. Currently, there are no hazardous waste landfills in Virginia. A proper landfill for non-hazardous ash disposal in Virginia is any permitted public or private sanitary or industrial landfill.

Ash from MSW resource recovery (waste-to-energy) facilities must be disposed of in properly designed and operated landfills to prevent possible ground or surface water contamination. There are no “waste-to-energy” facilities in the Service Area.

In the CVWMA Service Area, there are a variety of facilities that burn material and produce ash residue. These facilities include electrical energy generators and co-generators, as well as industrial and institutional facilities. These facilities have in place operations to dispose of their ash. For planning purposes, it is assumed the amounts of ash will remain consistent over the planning period, and that the operations in place will continue or be reduced as coal is being used less and less. The disposal of incineration ash resulting from the burning of coal is handled outside of the solid waste management covered by this Plan.

5.12 SLUDGE AND BIOSOLIDS

Sludge is a solid, semisolid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of treated effluent from a wastewater treatment plant

Biosolids means a sewage sludge that has received an established treatment and is managed in a manner to meet the required pathogen control and vector attraction reductions and contains concentrations of regulated pollutants below the ceiling limits established in the *U.S. Code of Federal Regulations* (CFR) Title 40, Part 503 and 9VAC25-32-356 of the Virginia Solid Waste Regulations, such that it meets the standards established for use of biosolids for land application, marketing or distribution. Only after the sewage sludge has undergone the established treatments and monitoring to become "biosolids" can the material be safely recycled and applied as fertilizer to improve and maintain productive soils and stimulate plant growth.

Sludge from public water treatment works is a precipitate composed of aluminum sulfate, $Al_2(SO_4)_3$. Alum sludge from public water treatment works is either disposed in a Municipal Solid Waste (MSW) landfill with liner and leachate collection and treatment, or is blended with stabilized biosolids and land applied. Alum sludge provides no nutrient value to soils but is considered inert and the cake consistency is considered a soil amendment to some farmers.

5.13 OTHER SPECIAL WASTES

Section 9VAC 20-81-10 of the Virgina Waste Management Regulations defines special wastes to mean “solid wastes that are difficult to handle, require special precautions because of hazardous properties or the nature of the waste creates waste management problems in normal operations”. For this Plan, "other special wastes" includes agricultural wastes, mining wastes and spill residues.

Agricultural Wastes **-** The farms in the rural parts of the CVWMA Region generate agricultural wastes, including animal manure and bedding, pesticides and herbicides, and animal carcasses. Much of this waste is removed and disposed by private waste collectors under contract to individual farm owners. Animal manure is generally disposed of in the area by land application.

Mining Wastes **-** According to the Mineral Resources Division of the Virginia Department of Mines, Minerals and Energy, very little mining waste is generated in the CVWMA Service Area and virtually none of it is classified as hazardous. The few sand and gravel companies contacted in the Region report that the materials they mine are sold or are stored on site. Stone quarry waste is also minimal. Luck Stone Corporation reports that almost all material mined is converted to a product. The small quantities of waste generated are inert and are stored or disposed of on site.

Spill Residues **-** The potential exists that when a hazardous substance is spilled in the environment a portion of the material may pollute the soil and ground and surface water resources. The Virginia

Hazardous Materials Emergency Response Program is coordinated by the Department of Emergency Services (VDES), which works with appropriate state and local agencies.

When a large spill occurs, the State is contacted. The material is tested to determine the presence of heavy metals, and organic compounds. A determination is then made regarding whether or not the material must be treated as a hazardous waste and disposed of at a facility licensed to handle hazardous materials. If the material is determined to be non-hazardous, it may be disposed of in a landfill permitted by the state to accept this type of special waste.

In the CVWMA Service Area, several private landfills accept spill residue including petroleum-contaminated substances (in accordance with specific guidelines) and friable (easily crumbled) asbestos. Sanitary landfills may, after approval by the DEQ, accept non-hazardous special wastes.

As potentially hazardous materials are transported through the Region, on occasion minor spillage occurs. VDES maintains a log of incidents reported by locality.

SECTION 6: WASTE GENERATION AND COMPOSITION

Waste quantities to be managed during the planning period are a critical component of the Plan. These quantities are compared to available resources to evaluate the ability of the plan's components to successfully meet the projected needs. In addition, an accurate evaluation of the Region's recycling activity is utilized to determine the Region's recycling rate and its compliance with DEQ mandates. This Section presents the estimates and projections of waste generation and recycling activity in the CVWMA Service Area. Methodologies used to make these estimates and projections are described herein.

6.1 DATA COLLECTION METHODOLOGY

The solid waste data used for estimating waste generation within the Service Area for this Plan are generated from national information published by the EPA in *Advancing Sustainable Materials Management (formerly known as the Municipal Solid Waste in the United States Report): 2018 Facts and Figures Report*[1] in conjunction with population data and projections provided by the Cooper Center for Public Service at the University of Virginia and member localities comprehensive plans

From the *2018 Facts and Figures Report,* EPA estimates average waste generation per year of 4.9 pounds per person per day. This rate is further broken down into categories based on how that 4.9 pounds per person per day is managed in the United States:

Category	Pounds/ person/day
Recycling	1.2
Composting *	.4
Other Food Management **	.3
Combustion w/ energy recovery +	.6
Landfill or other disposal ±	2.4
Waste Generation	**4.9**

* Composting of yard trimmings, food and other MSW organic material. Does not include backyard composting.

** Other food management pathways include animal feed, bio-based materials/biochemical processing, codigestion/anaerobic digestion, donation, land application and sewer/wastewater treatment.

+ Includes combustion of MSW in mass burn or refuse-derived fuel form and combustion with energy recovery of source separated materials in MSW (e.g., wood pallets, tire-derived fuel).

± Landfilling is what remains after recycling, composting, other food management and combustion with energy recovery are accounted for. Landfilling includes other disposal methods such as combustion without energy recovery.

6.2 WASTE GENERATION METHODOLOGY

The methodologies used to prepare estimates of the tonnages of waste generated in 2024 and projections of future waste generation in the CVWMA Service Area are described in this section. Specific problems with the data upon which these estimates and projections are based, are also identified.

The initial step in the process is to establish basic assumptions. It is assumed that the solid waste generation rate will remain constant during the planning period. This assumption is necessary for several reasons, including 1) it establishes a realistic beginning point for planning purposes and 2) it recognizes a core need that has been documented over the past. Obviously, there may be some significant modifications to

[1] *Advancing Sustainable Materials Management: 2018 Fact Sheet, US Environmental Protection Agency*

waste generation in the future. Any such modifications would probably be largely beyond any specific set of actions by CVWMA members. CVWMA and its members can continue to pursue activities to enhance public awareness and attention to issues surrounding waste management, but the reality of the situation is that it will require action by those outside of the local sphere to make significant alterations to the quantities of waste generated.

Qualifications About Projection Methodology **-** The available landfill capacity figures and annual tonnages entering landfills in the Region are extracted from the Virginia Department of Environmental Quality report, *Solid Waste Managed in Virginia During Calendar Year 2022*[1]. Only total tonnages are published by DEQ. The jurisdiction that is the source of the waste going to these landfills cannot be determined making it difficult to correlate these numbers with the waste generation totals.

In addition, it should be noted that Material Recovery Facilities (MRF) and recycling processors are not required to obtain a VA solid waste permit and if they do not have a permit, are not required to submit information for the report or the annual recycling rate.

Therefore, it should be recognized that no direct data is available concerning specific composition of the wastes at area landfills or MRFs.

6.3 SOLID WASTE GENERATION ESTIMATES FOR 2024-2044

Utilizing the population projections provided by the Cooper Center for Public Service at UVA, locality projections and the methodology noted above, solid waste generation projections were calculated by jurisdiction and for the Region for the 20-year period through 2044 and are shown in Table 8 below.

Table 8: Projected Waste Generation

	2030 Population	2030 MSW (tons)	2035 Population	2035 MSW (tons)	2040 Population	2040 MSW (tons)	2045 Population	2045 MSW (tons)
Charles City County	6,200	5,544	6,116	5,469	6,033	5,395	5,995	5,361
Chesterfield County	406,942	363,908	429,717	384,274	452,492	404,641	478,653	428,035
Goochland County	27,339	24,448	29,075	26,000	30,810	27,552	32,776	29,310
Hanover County	110,232	98,575	114,845	102,700	119,459	106,826	124,967	111,752
Henrico County	356,656	318,940	371,783	332,467	386,910	345,994	404,932	362,110
New Kent County	27,067	24,205	29,204	26,116	31,340	28,026	33,711	30,146
Powhatan County	32,152	28,752	33,875	30,293	35,598	31,834	37,587	33,612
Richmond City	245,437	219,482	250,726	224,212	256,015	228,941	263,220	235,384
Prince George County	49,574	44,332	51,663	46,200	53,751	48,067	56,242	50,294
Colonial Heights City	18,658	16,685	18,834	16,842	19,010	17,000	19,328	17,284
Hopewell City	23,139	20,692	23,143	20,696	23,132	20,686	23,301	20,837
Petersburg City	34,002	30,406	33,682	30,120	33,361	29,833	33,431	29,896
Town of Ashland	8,142	7,281	8,483	7,586	8,824	7,891	9,231	8,255
CVWMA Service Area	**1,345,541**	**1,203,250**	**1,401,146**	**1,252,975**	**1,456,735**	**1,302,685**	**1,523,374**	**1,362,277**

For the years 2024 through 2044, each annual population projection was multiplied by the accepted EPA estimate of 4.9 pounds per person per day, to estimate total MSW to be generated. Based on this methodology it is estimated the CVWMA Region will generate about **25 million tons of MSW** over the 20-year planning period.

Recycling and landfill disposal are currently the two predominant methods of handling MSW generated in the CVWMA Service Area. Data currently exists for recycling tonnages within the Region. It is assumed for purposes of this Plan that the tonnage of waste landfilled and recycled tonnage account for almost all waste originating in the Region. Therefore, subtracting the recycling tonnages from the estimate of total solid waste generated provides an estimate of municipal solid waste left to be managed through disposal or other alternatives.

[1] *Solid Waste Managed in Virginia During Calendar Year 2023*, June 2024, Department of Environmental Quality

The CVWMA reported the Region recycled an estimated 58.1% in calendar year 2023 (See Recycling Rate Methodology in Section 6.4). The annual recycling rate has been fairly consistent over the last 10 years, ranging between 55% - 60%. For purposes of this Plan, it is assumed the level of recycling as a percentage of waste generation will remain consistent with current levels. Based on the Region's currently recycling rate of 58.1%, non-recycled waste for alternative solutions and/or disposal is about 10.5 million tons over the next 20 years, an average of about 530,000 tons per year.

As of January 1, 2024, there is 18 million tons of disposal capacity available in the Region per DEQ's *2024 Annual Solid Waste Report.* The 2 active landfills that are accepting MSW from the Region are WM's Charles City Landfill and Republic's Old Dominion Landfill. This available capacity decreased significantly since the 2019 update primarily due to the removal of airspace capacity of the quarry from Shoosmith Landfill of approximately 17 million tons (Amendment 10). There are three sanitary landfills outside the Region in Amelia, Sussex and Lunenburg Counties where waste from the Region is currently being disposed and those landfills report a combined remaining capacity of 56 million tons. In addition, four other sanitary landfills outside of the Region have available capacity for use by the Region. King and Queen LF, King George LF, Middle Peninsula LF and Brunswick LF make up another 43 million tons of capacity.

The Greenridge Landfill is in the permitting process and will be a new sanitary landfill developed in Cumberland County, about 5 miles west of the Powhatan border on Route 60. That capacity will be available to the Region in the future.

At the current rate of waste disposed in landfills in and immediately outside the CVWMA from out of state, out of Region and in the Region, coupled with anticipated waste reduction efforts and increased recycling and waste diversion, disposal capacity in and outside of the Region is deemed sufficient for the Region's waste disposal needs over the next 20 years.

6.4 RECYCLING RATE METHODOLOGY

The methodology employed to determine the recycling rate for 2023 used the following tonnage-based formula in accordance with 9VAC20-130-125 of the Virginia Solid Waste Planning Regulations:

Calculated Recycling Rate: Recycling rates shall be calculated using the following formulas:

$$B = \frac{P}{M} \times 100$$

$$A = \frac{P + C}{M + C} \times 100$$

$$S = B + 2\% \text{ or } S = A + 2\%$$

Where:

A = adjusted recycling rate

B = base recycling rate

C = the total tons that may be added to the recycling formula as allowed by regulation as credits.

M = the sum of PRMs recycled and MSW disposed in the calendar year. (MSW disposed equals the amount of MSW delivered to landfills, transfer stations, incineration, and waste-to-energy facilities.)

P = the amount of PRMs received for recycling in the calendar year

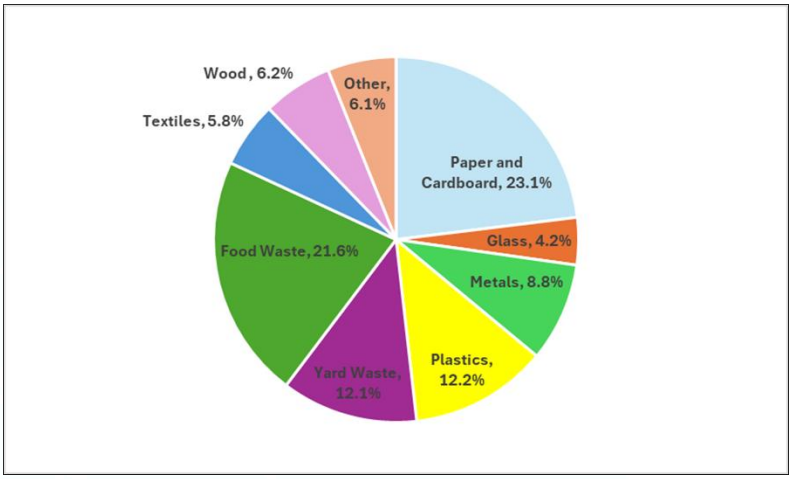
S = base or adjusted recycling rate with SRP credit

Definitions:

- PRM is tons of Principal Recyclable Materials. PRMs include paper, metal, plastic, container glass, commingled, yard waste, waste wood, textiles, tires, used oil, used oil filters, used antifreeze, batteries, and electronics.
- SRP Credit stands for Source Reduction Program. Examples include Home Composting, Office Paper Reduction (duplexing), and Multi-use Pallets.
- Credits are materials that are solid wastes such as construction waste, demolition waste, ash, sludge and concrete when reused in tons.
- MSW is tons of Municipal Solid Waste Disposed.

6.5 MUNICIPAL SOLID WASTE AND RECYCLABLE MATERIAL COMPOSITION

The composition of the waste stream is estimated based on EPA's average waste composition and population projections of the CVWMA Service Area. These composition numbers are not based on direct sampling or waste characterization within the Service Area. They were obtained from the *EPA Facts and Figures about Materials, Waste and Recycling (2018)*. CDD wastes are not included in the waste composition.



It's estimated, based on waste generation projections described in previous sections, that the CVWMA Service Area will generate over 1.1 million tons of MSW in 2025. A breakdown of the composition of the projected MSW tonnage for 2025 is estimated in Table 9.

An analysis of this data reveals that organic waste (food and yard waste) comprises a third of the waste stream. Paper products also comprise a major portion of the regional waste stream a 23.1%.

Table 9: CVWMA Region Solid Waste Estimated Tonnages by Material

Material	% Generated	Est Regional Tons Generated	Regional Recycled Tons
Paper and Cardboard	23.1%	266,491	93,369
Metals	8.8%	101,278	149,793
Glass	4.2%	48,442	28,884
Plastics	12.2%	141,049	16,121
Rubber, Leather, Textiles	5.8%	103,590	12,091
Wood	6.2%	71,565	116,879
Food Waste	21.6%	249,611	8,732
Yard Waste	12.1%	140,009	229,056
Other	6.1%	34,106	13,434

Note: Data is based on 2025 Population Estimates and EPA percentages from the 2018 report.

6.6 LITTER CONTROL PROGRAMS

The Commonwealth of Virginia levies three taxes to support litter prevention and recycling program activities in Virginia. The three taxes are comprised of a malt beverage tax, a soft drink tax and a retail

establishment fixed fee of $10 or $25. These funds are collectively referred to as the "litter taxes."

DEQ provides these funds annually to localities for litter prevention and recycling grants under a non-competitive grant program based on population and road miles. Each locality in Virginia is eligible for the annual grant. Localities use these funds each year for local litter prevention and recycling program implementation, continuation and/or expansion. Localities use these grants to fund salaries, administration, educational materials, travel, equipment and other expenses related to litter prevention and recycling programs.

The Litter Control and Fund Advisory Board, appointed by the Governor oversees and tracks the status and progress of the fund and the annual grant program.

Since the inception of the State grant program in 1978, some Cities, Towns, and Counties in the CVWMA Service Area have formed citizen committees to guide litter prevention and recycling education efforts. Often full or part-time coordinators manage these programs. Litter prevention programs provide student and community education regarding proper solid waste management practices and recycling. The programs also coordinate some litter cleanup and recycling activities.

Programs may follow the guidelines of Keep America Beautiful, Inc. The Cities of Hopewell and Richmond and Henrico County are affiliates of Keep America Beautiful.

The local department of public works or cooperative extension office sponsors many programs, which provide office and administrative assistance to the program.

The following is a summary of current litter control efforts in the CVWMA Service Area.

- Ashland: Activities coordinated through the Department of Public Works.
- Charles City: Activities coordinated by the Clean Community Commission through the Department of Development.
- Chesterfield: Activities coordinated by Chesterfield Anti-Litter Program through the Chesterfield Department of Community Enhancement.
- Colonial Heights: Activities are coordinated through the Department of Public Works.
- Goochland: Activities coordinated by Goochland Anti-Litter and Recycling Council (GARC) through Planning Department
- Hanover: Activities coordinated through the Department of Public Works.
- Henrico: Activities coordinated by Keep Henrico Beautiful through the Department of Public Utilities.
- Hopewell: Hopewell activities are coordinated through Keep Hopewell Beautiful under the auspices of the Director of Development.
- New Kent: Activities coordinated through the Clean County Committee in the Department of Planning.
- Petersburg: Activities coordinated through the Department of Public Works.
- Powhatan: Activities coordinated by the Anti-Litter Council through the Powhatan Extension Office.
- Prince George: Activities coordinated through the Department of Public Works.
- Richmond: Activities coordinated by the Clean City Commission through the Department of Public Works.

7. SOLID WASTE NEEDS ASSESSMENT

The existing solid waste management system was evaluated to identify specific needs to be addressed in the development of the Central Virginia Solid Waste Management Plan and its implementation. This assessment was based on an evaluation of the following factors:

- Continuation of robust recycling programs that exceed the State mandated recycling goals;
- Consistency of existing waste management system with the State's waste management hierarchy and adopted Goals and Objectives of the CVWMA and of the Plan;
- Capacity and capability of the components of the waste management system to meet existing and projected waste collection, transportation, and disposal needs; and,
- Environmental and other external impacts associated with existing waste management collection, transportation, and disposal techniques.

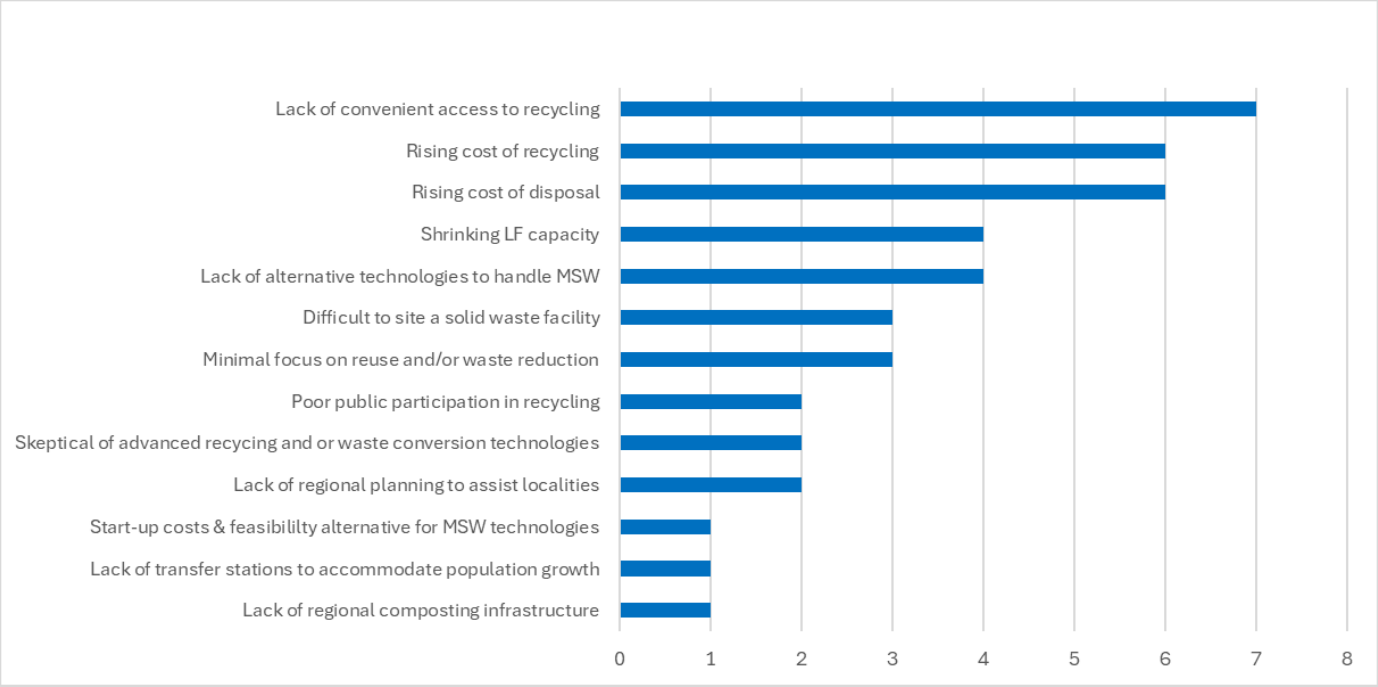
The needs assessment is divided into sections corresponding to the waste management hierarchy. It concludes with an assessment of planning and overall system needs. Within the management hierarchy, needs are generally listed in order of priority from the most significant to the least.

7.1 LOCALITY INPUT

In the development of the preferred system, it is critical that the system meet the anticipated needs of the member jurisdictions. All 13 localities were surveyed as to what these anticipated needs might be. Eleven jurisdictions responded and the following is a summary of responses.

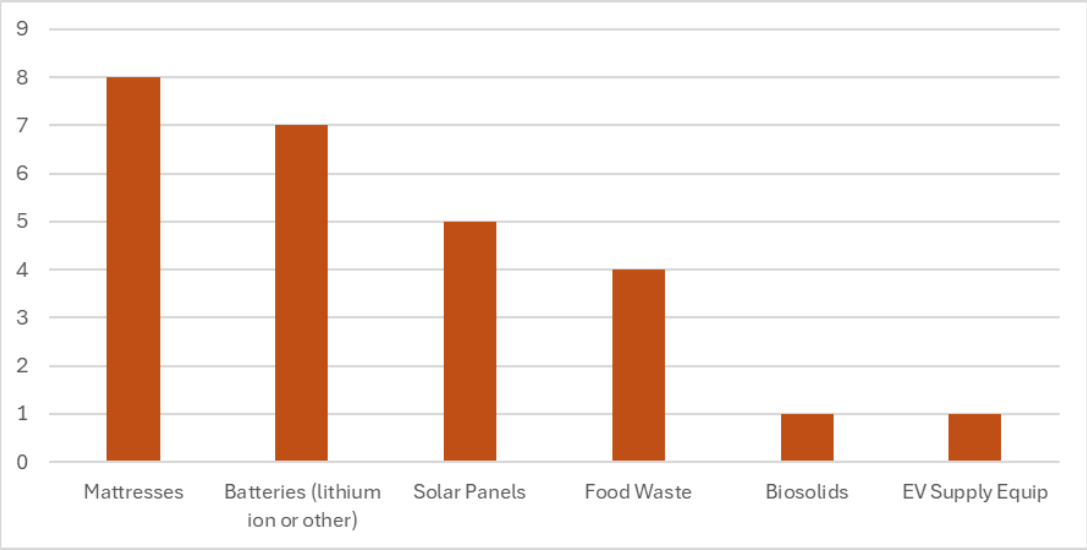
1: What do you see as the biggest issue (s) regarding solid waste in your locality? (Top 4)

Lack of convenient access to recycling for residents (e.g. multi-family, rural communities) and rising costs of both recycling and disposal were the top ranked issues regarding solid waste.



	Lack of regional composting infrastructure	Lack of transfer stations to accommodate population growth	Start-up costs & feasibililty alternative for MSW technologies	Lack of regional planning to assist localities	Skeptical of advanced recycing and or waste conversion technologies	Poor public participation in recycling	Minimal focus on reuse and/or waste reduction	Difficult to site a solid waste facility	Lack of alternative technologies to handle MSW	Shrinking LF capacity	Rising cost of disposal	Rising cost of recycling	Lack of convenient access to recycling
Ashland										1	1	1	
Charles City County						1							1
Chesterfield County			1	1					1				1
Colonial Heights							1		1		1	1	
Goochland County								1		1	1		1
Hanover County				1				1	1	1	1	1	
Henrico County					1				1	1			1
New Kent County		1										1	1
Powhatan County					1						1	1	1
Prince George County						1	1				1	1	
Richmond	1						1	1					1
Totals	**1**	**1**	**1**	**2**	**2**	**2**	**3**	**3**	**4**	**4**	**6**	**6**	**7**

2: What additional products/waste streams do you anticipate a future need to find ways to store, transport, recycle and/or dispose of?



Mattresses and batteries were the top responses of waste streams that the Region needs to focus on, along with solar panels and food waste.

3: For any of the below facilities in your jurisdiction, please indicate 1) whether or not they have all of the proper permits and are in compliance with all permits that you are aware and 2) if you are aware of any plans to expand or reduce available capacity over the next 20 years.

WM Charles City Landfill Charles City County – The Landfill has all the required permits with several to be renewed. WM has experienced some violations but are working to resolve the issues.

Old Dominion Landfill, Henrico County – Not currently in compliance with the Henrico Wastewater discharge permit and are working to resolve. The Landfill is in compliance with the local Conditional Use Permit (CUP). The Landfill is scheduled to be at capacity around 2035 and is planning to build an MSW transfer station.

Shoosmith Landfill, Chesterfield County – The Landfill has permits for current operation and is in compliance. The future capacity associated with the quarry is not permitted and will not be permitted in the future.

Tri-Cities Regional Landfill, City of Petersburg – no response

623 LF, Goochland County – Republic has all of the proper permits and the County has been made aware of potential expansion plans in the future.

Ashcake Landfill, Hanover County – The Landfill owner went through the public process for expansion but has been denied by the Board of Supervisors.

The East End Landfill, Henrico County – The Landfill does not have the CUP to operate in the County. The previous CUP was revoked by Henrico Board of Zoning Appeals on March 22, 2018 and the LF ceased accepting waste in June 2018.

Taylor Road Landfill, Chesterfield County – The Landfill has permits for current operation and is in compliance with permits.

Skinquarter Landfill, Chesterfield County – The Landfill has permits for current operation and is in compliance with permits.

4: What strategies should the Region consider in order to better manage and plan for the Region's solid waste in the areas of Economic Development, Legislation, Education and Outreach and Other?

Economic Development:

Ashland	Encourage vendors of alternate disposal techniques to build within our region.
Charles City County	To address solid waste management in the context of economic development, the region should consider implementing a multifaceted approach. Here are some strategies to better manage and plan for solid waste: Waste Reduction and Recycling Programs: Implement comprehensive waste reduction and recycling programs to minimize the amount of solid waste generated. Raise awareness and educate the community about the importance of recycling and proper waste disposal practices. Public-Private Partnerships (PPPs): Foster collaborations between the public and private sectors to develop and implement effective waste management solutions. Encourage businesses to adopt sustainable practices and invest in waste reduction technologies. Community Engagement and Participation: Establish community-based initiatives and volunteer programs to promote active participation in waste reduction efforts.
Chesterfield County	Need to determine if the EDAs of member localities even see solid waste and/or reduce, reuse, recycle industries as something they target.
Colonial Heights	Solid waste planning should examine alternative ways to reuse and recycle waste materials in order to attract growth.
Goochland County	Recycling expanded to all or most of Goochland County.
Henrico County	Needs to be collaboration between EDAs and CVWMA. EDAs should be reaching out to CVWMA to discuss waste topics as a part of their normal discussions when recruiting business opportunities in the region. CVWMA should be reaching out to EDAs to let them know the waste facility needs in the region.
Powhatan County	What opportunities exist from more robust adherence to SMMH? Are there win-win opportunities, particularly at the Energy Recovery stage, for member localities to divert/ convert non-recyclable waste into a revenue generating commodity?
Prince George County	Businesses that want strong recycle options regardless of location.
Richmond	Improve regional circular economy efforts in partnership with local higher ed institutions

Legislation:

Ashland	Encourage the development or expansion of landfills within our region.
Charles City County	To enhance solid waste management through legislation, the region should focus on implementing comprehensive and effective legal frameworks. Here are key strategies to consider: Mandatory Recycling Programs: Implement legislation mandating recycling programs for certain materials, industries, or regions. Specify recycling targets and enforce compliance to ensure effective waste diversion from landfills. Illegal Dumping Prevention: Strengthen laws against illegal dumping and littering. Implement surveillance and monitoring systems to identify and penalize individuals or businesses engaged in illegal waste disposal.
Colonial Heights	Implement EPR policies that hold producers responsible for the entire life cycle of their products, including proper disposal. This encourages manufacturers to design products with recycling and reusability in mind.
Powhatan County	Require recycling services be available to residents living in multi-family residential complexes.
Richmond	Advocate for stricter requirements for waste reduction in all waste streams (i.e., sunrise in recycling requirements, etc.)

Education and Outreach:

Ashland	Continue to educate and promote recycling.
Charles City County	To improve solid waste management through education and outreach, the region should implement a holistic approach that engages the community and fosters a culture of environmental responsibility. Here are key strategies to consider: Public Awareness Campaigns: Launch targeted public awareness campaigns to educate residents about the importance of proper waste disposal and recycling. Use various channels, including social media, community events, and educational materials, to disseminate information. Partnerships with NGOs and Environmental Groups: Collaborate with non-governmental organizations (NGOs) and environmental groups to amplify education and outreach efforts. Leverage their expertise to organize community clean-up events, recycling drives, and awareness programs. Incentivize Sustainable Practices: Introduce incentive programs to reward individuals or communities for exemplary waste reduction and recycling efforts. Consider recognition awards, discounts, or other incentives to motivate participation. Mobile Apps and Technology Integration: Develop mobile apps or online platforms that provide real-time information on waste collection schedules, recycling centers, and educational resources. Utilize technology to engage a tech-savvy population and make information easily accessible. Community Leaders and Influencers: Enlist the support of local community leaders and influencers to champion waste management initiatives. Their influence can help amplify messages and encourage community participation. Demonstration Projects: Implement demonstration projects showcasing successful waste reduction and recycling models. Invite community members to participate and learn from hands-on experiences in their community. Engage Businesses and Industries: Collaborate with businesses and industries to include waste management education in employee training programs. Encourage businesses to promote sustainable practices among their staff and customers.
Colonial Heights	Consider developing mobile apps to provide information on waste collection schedules, recycling centers, and sustainable practices. Utilize technology to make waste management information easily accessible to the public.
Goochland County	Increase the education to all of Goochland County citizens, children and adults.
Henrico County	Nothing at this time.
New Kent County	Partnerships with local school system to teach and emphasize the importance of recycling.
Powhatan County	See CVWMA develop strong partnerships with Economic Development Departments in member localities to educate staff on SMMH, trends in recycling and waste management, and build front-end awareness of waste impacts and opportunities of new business.
Richmond	Though I do not currently know what much about our regionally supported education and outreach efforts, we should have a dedicated Recycling subcommittee for this underneath CVWMA, as well as updated recycling communications (i.e., billboards, annual magazines, etc.). I would suggest reaching out to Pinellas County Florida who has a robust education and outreach arm. I would be happy to connect you all!

Other Areas:

- CVWMA regional partners should take a more systematic approach to how we process each type of waste. Each locality could take the lead on a specific waste type so that each locality doesn't have to develop their own system. As an example, Goochland could take the lead on hosting a mattress collection facility (since they are the closest to the mattress processing facility) and each

locality could deliver mattresses to them. Each locality would pay for the hauling and processing of mattresses. (Henrico County)

- Increase requirements for trash, recycling and future composting equipment during new development. (City of Richmond)
- While there is still capacity in several landfills, some are closing and the useful life of others is diminishing. Would be nice to see a regional effort to purchase land that can be converted into a landfill that would have all of the latest technology that would mitigate environmental impacts and expand it's useful life. (Hanover County)

5: Population estimates are obtained from the Cooper Center for Public Service for use in the Plan. If your projections of growth over the next 20 years are different, please provide your projections.

None

6: Any other comments or suggestions CVWMA should consider as we develop the regional solid waste plan?

Comments Included:

- Need to truly plan regionally vs. facility siting boiling down to a local zoning decision which is the case today. (Chesterfield)
- CVWMA should partner with PlanRVA. (Henrico)
- Provide an outline of the financial requirement for implanting the solid waste plan. Consideration of funding mechanisms, such as user fees, grants and public-private partnerships to ensure the plan's sustainability. (Colonial Heights)
- Determine the financial tipping point of centralized waste collection versus multiple different haulers going down the same residential street on a weekly basis. (Prince George)

7.2 PLANNING

Diversification of solid waste management practices and technology needs to be explored in the regional planning process to reduce reliance on landfill disposal. In 2025, the Region will generate nearly 1.2 million tons of municipal solid waste (including recyclables). Over the last 10 years, the CVWMA Region has reported a recycling rate in the 55%-60% range. Assuming the Region continues to recycle at least 55% of MSW, that leaves approximately 530,000 tons of waste to be disposed of in landfills or managed in another way.

Landfill costs have historically been relatively inexpensive in the CVWMA area compared to recycling and other disposal methods. However, as landfill capacity continues to shrink over the next 20-years, we can expect costs to increase as competition is reduced and waste is transported further away for disposal. In addition, public opposition to the siting of these facilities is another reason that it is critical that other waste management strategies be pursued that reduce the reliance on landfill disposal.

Specific programmatic objectives need to be established in the regional planning process. In 2022, the CVWMA Board adopted a 20-year strategic plan (Section 3) which includes a more comprehensive Sustainable Materials Management Hierarchy (SMMH), a systematic approach to using and reusing materials before recycling. The first goal is to increase the recycling rate to 80% and explore alternative technologies for non-recyclable waste. As landfill capacity is shrinking and costs for disposal are rising, the time is now to plan and implement strategies and programs to lessen the need for landfill capacity.

The Region lacks consensus on how much of its waste stream or what specific categories of waste will be targeted for reduction and diversion from final disposition in landfills, however the CVWMA member jurisdictions are in agreement that the issue of waste management needs regional solutions. The integrated waste management approach requires that programmatic objectives be established for the waste stream in the development and evaluation of waste management alternatives.

The regional solid waste management planning effort should continue to concentrate on strategies to divert waste from landfills. At the current rate of waste disposed of in landfills in and immediately outside the CVWMA Region from out of state, out of Region and in Region, coupled with anticipated waste reduction efforts and increased recycling and waste diversion, disposal capacity in and outside of the Region is deemed sufficient for the Region's waste disposal needs over the next 20 years.

It has become increasingly more important to diversify waste management strategies in order to become less reliant on sanitary landfill disposal. CVWMA's adopted Strategic Plan is incorporated in this solid waste plan update and includes strategies to reduce waste, increase recycling and waste diversion initiatives to include such areas as organics, increasing access to recycling in multi-family dwellings and exploring alternative technologies for non-recyclable waste. (See Section 8)

These waste diversion strategies should consider a range of implementation (regulatory) options to accomplish the objectives of these strategies. Waste diversion strategies and major regional waste projects require some degree of control over the solid waste stream. At present, fully 40 percent the Region's collected residential waste and almost all of the commercial and industrial waste is outside of local control. The economic viability and the effectiveness of various recycling and regional waste management programs may rest on the degree of waste stream control.

In the future, as available landfill capacity is used or becomes unavailable, resource recovery and other long-term volume reduction options may need to be seriously considered to manage the waste that cannot be diverted from traditional landfills through existing waste reduction, reuse, and recycling strategies.

Existing waste collection services are generally adequate and do not need to be addressed from a programmatic standpoint in the regional planning process, except to encourage increased productivity in municipal systems and to identify where new services are needed. A mix of public and private waste collection haulers serves the Region. The municipalities which provide these services will continue to investigate ways to increase the productivity of their collection systems. The remainder of the waste collections service is provided by the private sector, which is market driven and highly competitive.

Therefore, the regional planning process needs to focus at the macro-level on the planning for services where needed rather than on the micro-level, which addresses detailed improvements needed to existing services. However, the magnitude of control of waste stream collection by the private sector requires that the regional planning process carefully consider the effects of any proposed new recycling and waste collection programs on private haulers. The need for specific regulatory and institutional changes to ensure such programs will be effectively implemented by these haulers should also be considered.

The appropriate balance between the roles of the private and public sectors in solid waste management should be fully explored in the planning process. The policies of the Central Virginia Solid Waste Management Plan emphasize the need for private sector involvement and participation in solid waste management. Approximately 70 percent of the Region's waste is collected by private companies under contract with local governments or directly with individuals and firms. All of the Service Area's waste that is not reused, recycled or composted is landfilled at private solid waste facilities.

Although the marketplace is providing services and solutions to the Region's solid waste management needs in an efficient and cost-effective manner, too much dependence on this market, particularly for waste disposal, may entail some risk due to the uncertainty of future costs and availability of landfill space.

One problem with reliance on the private sector in the waste collection area is the lack of control of some aspects of the waste stream, which may be needed for various local/regional recycling and other waste management programs.

The appropriate governmental level (i.e. authority or local) for delivery and coordination of solid waste management services needs to be fully explored in the regional planning process. A major reason for the establishment of the CVWMA was to achieve economies of scale in the provision of recycling services (and other waste management services) and greater marketing power in the secondary materials marketplace. Local recycling programs would allow for more customized approaches and accountability to local officials. Duplication of local programs at the regional level or vice versa may not be cost-effective.

It is important that these programmatic responsibilities be rationally developed and that the cost differences between local and regional alternatives for various recycling and other waste management programs be identified in the alternatives evaluation process.

Public information and education programs are needed to adequately address the full spectrum of solid waste management issues and to improve the success and participation rates of waste management initiatives. Public education and outreach and marketing efforts need to be specific to the Region, supplying regional facts, specific information about recyclable materials, locations of facilities, dates of events, and promotion of special programs, must continue to be developed, specifically surrounding the Sustainable Materials Management Hierarchy. The focus should be on regional messaging as many services, whether public or private, cross jurisdictional boundaries.

7.3 SOLID WASTE INFORMATION AND DATA

Adequate and reliable information on solid waste collection, disposal, recycling, source reduction and reuse activities is needed. In order to more accurately determine solid waste management and recycling activity in the Service Area and make more reliable waste generation estimates and projections, reporting of waste generation and disposal characteristics must be improved.

More reliable and accurate information on the composition of the Region's waste stream is needed. The existing estimates of waste composition were based on Environmental Protection Agency national statistics. It would be highly useful if some statistically accurate level of sampling of landfilled wastes were conducted within the Service Area to develop a more accurate and reliable database.

7.4 SOURCE REDUCTION AND REUSE

Source reduction includes all activities and programs that result in waste minimization. Reuse is a reduction strategy in which a product, after its initial use, is reused for the same or a new purpose without undergoing significant reprocessing.

Public and private waste reduction and reuse programs appropriate for meeting solid waste management needs of the Service Area need to be defined. Source reduction and reuse are particularly cost-effective management techniques, since they reduce the amount of waste entering the waste stream to be managed. Specific regional and local programs worthy of support should be identified and evaluated, particularly their potential impacts on recycling programs. One aspect of this program should focus on waste exchanges, which link waste generators with waste users.

Information on current source reduction and reuse programs and activities is needed. The current level of source reduction and reuse in the Service Area is unknown. Although some level is certainly occurring, no comprehensive data is available on quantities or tonnages of materials not generated or reused within the Service Area. Further work and investigation are necessary to provide a better understanding of existing efforts in this area and methods for quantifying source reduction and reuse activities.

Education and outreach activities are essential to accomplish a significant level of waste reduction within the Service Area. Source reduction and reuse are an integral part of CVWMA's education programs and continue to expand and evolve.

7.5 RECYCLING

Additional markets must be secured for recyclables, and existing public and private efforts expanded to pursue a cost-effective mix of recycling programs that target portions of principal recyclable materials for diversion from the waste stream. To be effective, recycling markets must be developed and secured, and industrial and national barriers to recycling and composting must be overcome. Without available markets that will accept the recyclables, recycling programs will become more difficult to sustain. At local and regional level political and social changes must be sought that encourage the use of secondary materials and the development of industries that use or process these materials.

Although the Region's current recycling rate enables the Region to meet the state's recycling mandates, decisions must be reached during the planning process on what level of waste diversion is desirable to divert further waste from going to landfills, meet public and political expectations, and to respond to possible changes in the state mandated recycling rates or definitions. The current recycling rate, as calculated under the State regulations, is about 58 percent (2023 Rate). There are new opportunities the Region is exploring for recycling its waste products, such as food waste, mattresses, batteries etc.

Any recycling programs and corresponding target levels should be based on a thorough evaluation of the cost-benefits of these programs, particularly compared to alternative waste reduction and disposal strategies.

The costs and benefits of recycling programs should be balanced with other environmentally sound disposal methods in addressing the Region's solid waste management needs. Recycling is a stated public policy in the Commonwealth of Virginia and has widespread public support; however, any cost-effective integrated solid waste management program to address waste management needs must consider that recycling will not address all the disposal needs of the Region, nor will waste reduction strategies.

The volatility of recycling markets, the economic disadvantage of some secondary materials versus primary materials in the production process, the institutional, social and legal barriers to recycling, and the relative low costs of landfills and availability of landfill capacity and siting space in the Region make it more difficult to pursue rigorous and highly ambitious recycling programs. Full consideration should be given to the costs and benefits of each waste management strategy.

7.6 SPECIAL WASTES MANAGEMENT

Expansion of programs and markets for reuse, recycling, and proper disposal of special wastes such as tires, motor oils, batteries, e-scrap and mattresses are needed. All of these wastes have some degree of environmental consequences, particularly those wastes that are discarded without proper disposal.

Some localities are neither currently participating in the HHW (used oil, oil filters, antifreeze and paints) Program, nor do they have their own locally managed program. Other localities, however, have their own locally managed program.

The hazardous nature of the batteries requires that they be recycled or disposed of properly in a certified disposal facility. Lithium-ion batteries and electric car batteries are hazardous if combined with recycling and/or solid waste causing fires and significant safety concerns. As more and more of this type of waste enters the waste stream, there is a growing need to properly handle these products at their end of

There is ongoing e-cycling programs in many of the localities within the Region. It is anticipated that this will continue with events and drop-off locations at convenience centers.

Extended Producer Responsibility (EPR) should be explored in the Region and in Virginia for various commodities.

Data is lacking on land-clearing, construction debris, demolition, and ash wastes. Little data currently

exists in the Region concerning many of the aforementioned special wastes or how much of these wastes are being reused or recycled.

Non-landfill techniques for the disposal of Biosolids have proven to be effective for the recycling of these wastes; however, health and environmental concerns require that these practices be closely monitored. Some of the municipal wastewater sludge within the Region is being land applied to fertilize farmland. Future regulatory changes may impact this process. At that time the Region will consider options to include (but not limited to) mulch facilities to combine yard waste and the sludge for the disposal of the sludge.

7.7 MATERIAL CONVERSION

Material conversion technologies need to be explored and considered to diversify waste management strategies for non-recyclable waste. As technology advances, it is worth exploring alternative methods of converting waste that can't be recycled into a usable product. While recycling turns a material back into a like product, material conversion means to utilize material into the making of a different product with different properties such as fuel, fiber or thermal plastic products.

7.8 RESOURCE RECOVERY

Waste-to-energy alternatives need some future consideration for disposal of a portion of the Service Area waste stream as a possible long-term option. Although existing landfill capacity and the impacts of recycling programs will make new landfills, except in some specific local situations, optional for the Region, an opportunity may arise for considering a major waste-to-energy facility(ies) for meeting the areas needs beyond the 20-year period or sooner. This technology should be considered in comparison to material conversion technologies to determine the best solution for the Region.

7.9 VOLUME REDUCTION AND INCINERATION

The reduction of waste volume through incineration does not appear to be a viable option for the Region at this time. Incineration of waste without any resource recovery is wasteful and provides little societal benefits to offset the potential adverse environmental aspects of this technology.

Other volume reduction technologies, such as composting organics should be and is being explored for feasibility. Organic waste makes up one-third of the waste stream and the majority is currently being landfilled. Most of the localities grind brush received at convenience for use in mulch. Jurisdictions struggle with the volume of leaves collected and finding an outlet to compost leaves. Some jurisdictions have initiated small scale composting such as the vermi-composting in Hanover County. Hanover County also composts yard waste and some produce for its residents. The City of Richmond is piloting a food waste composting program with local community gardens. The time is ripe to explore a local compost facility in the Region to reduce the volume of this material going to the landfill.

7.10 LANDFILLING

At the current rate of waste disposed of in landfills in and immediately outside the CVWMA region from out of state, out of Region and in Region, coupled with anticipated waste reduction efforts and increased recycling and waste diversion, disposal capacity in and outside of the Region is deemed sufficient for the Region's waste disposal needs over the next 20 years. Private MSW landfills within the Service Area have an estimated capacity of about 18 million tons as of January 1, 2024. Another estimated 99 million tons of capacity is available in the surrounding area outside of the Region. All of this landfill capacity is privately owned and may not prove to be economically feasible for use by a locality due to reduced competition, increased transportation costs and other factors. Reliance on private landfills entails some risks due to uncertainties; therefore, it is important that any management alternatives proposed in the planning effort provide sufficient flexibility and contingencies to deal with unexpected and changing conditions.

Some localities may require additional landfill space during the 20-year planning period. Although the Region will have surplus landfill capacity, some localities within the Service Area will need to make decisions during the planning period on securing additional or new landfill space. The following is a breakdown of the individual MSW landfill needs of each locality:

- Charles City County: It is anticipated that the County's solid waste disposal needs will be met through their agreements with WM for the WM Charles City Landfill.
- Chesterfield County: The Shoosmith Bros. Landfill is no longer accepting MSW. Residential and commercial collections of waste is handled by the private sector through subscription services. Waste from the County's Convenience Centers is being hauled and disposed of at landfills under the CVWMA Contract that has an expiration date of June 30, 2033. A new private transfer station has been approved by the County and construction is planned to begin in late 2025 to early 2026.
- Goochland County: Currently contracting with CVWMA through 2033 for waste disposal of approximately 7,500 tons collected at the two Convenience Centers by Republic Services. It is anticipated that this contractual arrangement will continue throughout the planning period.
- Hanover County: Currently contracting with Republic Services, who is transporting waste to the Old Dominion Landfill in Henrico County. Once this Landfill reaches capacity, it is anticipated that this waste will go to WM Charles City Landfill. This Contract expires in 2033, and a new procurement will be done by the County or the CVWMA.
- Town of Ashland: A private Contractor is collecting the Town of Ashland's residential municipal solid waste through a contract with the CVWMA which is currently with WM. Ashland will continue to contract its collection and disposal needs.
- Henrico County: The County collects approximately 110,000 tons annually through its residential collection program and at two County Convenience Centers and Transfer Station. Currently Henrico disposes waste at Republic Services' Old Dominion Landfill in the County. If this Landfill does not expand, it will reach capacity during the 20-year planning period. At that point, the County will utilize other disposal facilities in and outside the Region.
- New Kent County: Currently contracting with the CVWMA through 2033 for waste disposal of approximately 6,500 tons collected at their four Convenience Centers, which is currently with WM, which utilizes the WM Charles City Landfill for disposal. It is anticipated that this contracted service will continue to meet the County's needs.
- Powhatan County: Currently contracting with CVWMA through 2033 for waste disposal of approximately 6,200 tons collected at their Convenience Center which is currently with Republic Services. It is anticipated that this contracted service will continue to meet the County's needs.
- City of Richmond: The City has a contract with a private contractor for the disposal of MSW which is currently WM. Waste from the City's refuse collection program is transferred to WM's Charles City Landfill currently. It is anticipated that this or a similar arrangement will continue throughout the planning period.
- City of Hopewell: No anticipated needs since the City contracts through the CVWMA for the collection and disposal of MSW with WM. Waste collected through the City-wide residential program and from the City's Convenience Center is currently disposed in WM's Atlantic Landfill in Waverly VA. It is anticipated that this or a similar arrangement will continue throughout the planning period.
- Prince George County: The County's approximately 2,500 annual tons of waste collected at the convenience center is contracted with Meridian Waste. It is anticipated that the contracted service

will continue to meet the County's needs.

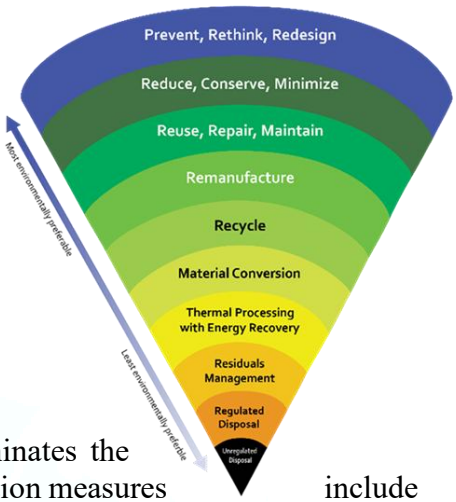
- City of Petersburg: Based on the City's current estimated annual waste tonnage of approximately 12,000 tons is contracted directly with Meridian Waste. Meridian takes all the City's trash over the term of this Plan as specified in the City's host agreement with Meridian. The Tri-Cities Landfill is now closed. Merdian is using their permitted Transfer Station in Petersburg and hauling the waste to their Lunenberg Landfill in Lunenberg County.
- City of Colonial Heights: The City has its waste disposal needs under contract with CVWMA, which is currently with WM, to collect and dispose of the trash. It is anticipated the City will continue to contract with a waste company to meet its needs
- Three (3) active C/D/D landfills in the Region (623 C/D/D Landfill, Ashcake C/D/D Landfill, and Taylor Road Landfill) are all privately owned. Ashcake Rd Landfill is currently at capacity and is in need of an expansion. If this expansion does not become available, and with the closure of The East End Landfill, options for disposal of CDD material becomes limited. Reduced competition and hauling farther away makes disposing of CDD material more challenging and less economical. However, there remains available capacity at these facilities coupled with remaining capacity at the sanitary landfills in and outside the Region.

8. PREFERRED REGIONAL WASTE MANAGEMENT SYSTEM

An analysis of the existing waste management system (Section 4), locality and TAC input (Section 7) and the CVWMA Strategic Plan (Section 3) were the driving force in the formation of the preferred regional waste management system and the Plan. This Chapter discusses the preferred waste management system and the implementation of such Plan. This only plans for the municipal solid waste (MSW) stream that includes residential and commercial wastes. Currently, the private sector is successfully managing the construction and debris and the industrial waste streams and is expected to continue to do so.

8.1 WASTE MANAGEMENT HEIRARCHY

In accordance with the Virginia Solid Waste Management Regulations, this Plan considers and addresses all components of the waste management hierarchy in order: Source Reduction, Reuse, Recycling, Resource Recovery, Incineration and Landfilling. In addition, this Plan further considers the expanded Sustainable Materials Management Hierarchy (SMMH) as a component of the CVWMA Strategic Plan (Section 3).



8.2 PREFERRED WASTE MANAGEMENT SYSTEM COMPONENTS

8.2.1 Source Reduction and Reuse

Virginia defines source reduction as "any action that reduces or eliminates the generation of waste at the source, usually within a process. Source reduction measures include process modifications, feedstock substitutions, improvements in feedstock purity, improvements in housekeeping and management practices, increases in the efficiency of machinery and recycling within a process." Source reduction includes all activities and programs that result in waste minimization. Reuse is a reduction strategy in which a product, after its initial use, is reused for the same or a new purpose without undergoing significant reprocessing. An example of reuse is refill stores where you bring your own container to fill with products such as laundry detergent, shampoo, etc.

Since source reduction and reuse both result in waste minimization, strategies to reduce and/or reuse waste are considered together. The primary role of local and regional agencies in these areas is education and outreach and marketing. Education and outreach activities are essential to accomplish a significant level of waste reduction within the Service Area. Source reduction and reuse are an integral part of CVWMA's education programs. Also many litter control and recycling committees in the Service Area also assist in education efforts in schools, at events and various community groups. Private businesses have and continue to take initiatives to minimize waste as described in Section 4.

This Plan assumes that the role of the CVWMA staff will be to coordinate on a regional basis, to the extent possible, the various groups and localities participating in source reduction and reuse. The overall direction in this area will be to encourage waste reduction and reuse by the general public and by the private and public sections where possible.

Future plans for source reduction and reuse include:

- Continuing to promote and encourage waste prevention and reuse by collaborating with reuse stores, repair organizations, localities and economic development officials as a major initiative in the regional Strategic Plan (Section 3).
- Develop key messages around Sustainable Materials Management Hierarchy, including waste reduction and reuse. Plan and implement marketing campaigns around SMMH and ensure these messages are incorporated into K-12 educational programs, as well as outreach activities for adults.

- Promote backyard composting of leaves, grass and food waste. Promote and encourage recoverable food for donation and animal use by working with grocery stores, schools, hospitals and farmers.

8.2.2 Recycling and Composting

The objectives of the recycling program are to reduce the amount of MSW requiring disposal in landfills, and to save energy and resources that would go into making new products from the same materials. The recycling component of the regional waste management system is divided into residential and commercial programs. In calendar year 2023, recycling programs underway in the CVWMA Region diverted 606,723 tons of Principal Recyclable Materials from the MSW stream. CVWMA actively manages over 77,500 tons annually of recyclable materials including:

- 26,430 tons collected through the curbside program
- 9,300 tons collected at the drop-off centers
- 36,483 tons of yard waste
- 5,337 tons of other recyclables

Commercial recyclers performed the remaining portion of the area's total waste diversion.

Residential Recycling: The CVWMA residential recycling component calls for a mix of offerings available to the participating jurisdictions including regional drop-off centers and bi-weekly residential collection of recyclable materials.

The preferred recycling program selected for the residential waste stream at this time provides for collection of aluminum, paper products, glass bottles and jars, plastic bottles and containers (#1-#7), cartons, and steel cans. Some jurisdictions also collect leaves and brush from residents certain times of year and will continue those programs.

Curbside Recycling: Currently, the CVWMA curbside recycling program is available to approximately 200,000 households in eight jurisdictions in the Region. It is anticipated that this total will continue to increase, as new subdivisions are built within or contiguous to existing curbside collection areas. Curbside recycling is offered and provided in Chesterfield County by private haulers.

It has been demonstrated that providing easy and convenient access to recycling, participation in recycling is greater. In 2023, CVWMA rolled out about 95,000 large, 96-gallon recycling carts to the remaining jurisdictions that were still using small bins. This resulted in a sustained 36% increase in volume of recyclables and a nearly 50% increase in participation in the program.

Curbside recycling is provided mostly to single family households. A small number of multi-family units are included in the curbside program where it's feasible. Some apartments, townhomes and condos provide recycling through commercial haulers. Other multi-family dwellers have the drop-off centers as an option. As mentioned above, providing an easy and convenient option, more people are likely to recycle. The construction of multi-family units is exploding in the Region, and it will be necessary to ensure that recycling is planned for in these communities similarly to a curbside program.

Drop Off Recycling: In areas where curbside recycling is not feasible or available (multi-family, rural areas), most residents in the Region have the opportunity to recycle household items at drop off centers. There are about 50 of drop off recycling centers, including convenience centers, throughout the Region for residents.

In addition to paper cans and bottles, other items are collected from the public for recycling at convenience centers, such as appliances/metals, propane tanks, waste tires, used oil and antifreeze, paints and solvents, yard waste, batteries, textiles, and electronics.

Many localities host periodic events for residents to drop-off items for recycling such as electronics, tires, HHW and paper for paper shredding.

Public Facilities*:* Many localities recycle at public facilities like schools, administrative buildings, fire and police stations, etc. It has become increasingly important for government to not only provide recycling programs for residents, but to ensure recycling is provided in public facilities. It is a goal to ensure that all schools are recycling their waste and establish collection and recycling/composting of food waste in the future.

Commercial: The recycling program selected for the commercial waste stream will target similar commodities as residential (cardboard, paper, glass, aluminum, plastic containers and cartons) and other materials such as yard waste and scrap metal. Commercial recycling rates are sensitive to cost and to levels of education and promotion within communities.

For the most part, commercial and industrial recycling will be carried out on a voluntary basis by the private sector. The goal of the CVWMA is to continue to meet the state mandated recycling levels by establishing reasonable target levels within the various components of the waste stream. As stated above, rates of commercial recycling are sensitive to public education and promotion aimed at the private sector.

The strategy for the Plan's commercial and industrial recycling programs is to rely on the free market and on state agencies and volunteer organizations supported by the CVWMA staff or local jurisdictions to make this component of the Plan successful. The CVWMA will work with various trade organizations local recycling coordinators, and volunteers to facilitate commercial recycling opportunities and provide education as requested. The CVWMA will also work with commercial haulers to identify potential markets for their services.

Private curbside recycling efforts are being initiated by several private contractors in the CVWMA Region. It is anticipated that these efforts will continue during this planning period and beyond.

Future plans and actions for **recycling and composting** are:

- Conduct an evaluation of waste and recycling in the Region, to include a waste characterization study. This will establish a baseline of current recycling and waste generation of various types of waste that will assist to further establish programs and education/outreach activities to better manage the waste stream as the Region adjusts to shrinking landfill capacity.
- Add new commodities that can be recycled. CVWMA recently initiated a mattress recycling program. CVWMA will continue to evaluate more commodities and markets for recyclable material.
- Increase access to recycling services to multi-family units. Lack of convenient access to recycling was the number one issue facing CVWMA member jurisdictions according to the survey conducted (Section 6). New multi-family housing is growing rapidly, thus in order to increase recycling, it will be imperative to provide more convenient access for multi-family dwellers to participate in recycling. CVWMA is working with member jurisdictions to make recycling a priority in applications for new development to ensure that infrastructure for recycling is planned on the front end. Existing multi-family buildings and complexes are more challenging due to space constraints and screening ordinances. CVWMA during the planning period plans to research and determine how many existing units and types of units are in the Region, the needs of each and the gaps in recycling.
- Evaluate and implement Region-wide organics composting, to include yard and food waste. Food waste and organic waste make up one-third of our waste and while there is some collection, donation and composting efforts (mostly commercial) in the Region currently, however much of this material is being disposed in landfills. A compost facility in Waverly,

VA (Sussex County) outside of the Region, accepts much of the food waste currently collected in the Region. The City of Richmond is currently processing food waste collected from community gardens and in order to expand food composting efforts, a local solution is needed. The *CVWMA* will support efforts to site a food and organics composting facility and will work toward developing regional programs for the collection and processing of food scraps.

- Support Extended Producer Responsibility legislation.
- Assist economic development officials to attract business to Virginia and central Virginia that will contribute to the Sustainable Materials Management Hierarchy in handling the Region's waste.

8.2.3 Material Conversion

Material conversion falls after recycling and before landfilling on the Sustainable Materials Management Hierarchy and is a method of managing waste that CVWMA is exploring. Material conversion is the process of transforming raw materials into useful and finished products through various techniques.

Future plans and actions:

- Research, explore and gain an understanding of new and existing technologies to process non-recyclable waste.
- Determine feasibility of one or more processes that would be suitable to handle the Region's municipal solid waste (after recycling).

8.2.4 Waste Collection and Transportation

The existing system of solid waste collection and transportation throughout the Region is to be continued through the planning period. The system is divided between the private sector, which operates under both free market and franchise conditions and the public sector.

The assumption of this Plan is that collection of recyclable materials under the preferred waste management system will reflect the system of solid waste collection that is in place. Techniques of collection and service providers will adjust as the demand for technology and collection advances improve.

However, as all publicly owned landfills have been phased out in the CVWMA Region, it may become necessary for the CVWMA or its member jurisdictions to provide one or more additional transfer stations / convenience centers, more recycling efforts and alternatives to landfilling waste as described in the sections above.

8.2.5 Waste Disposal

The method of disposal is landfilling after all efforts to reduce, reuse, recycle and convert waste are exhausted. At the current rate of waste disposed of in landfills in and immediately outside the CVWMA Region from out of state, out of Region and in Region, coupled with anticipated waste reduction efforts and increased recycling and waste diversion, disposal capacity in and outside of our Region is deemed sufficient for the Region's waste disposal needs over the next 20 years.

SECTION 9: COSTS AND ASSUMPTIONS

Annual costs for the existing waste management system, expressed in 2024 dollars are estimated to be about $88.8 million. Due to the variety of programs and methods for funding them by the various jurisdictions and the role of the private sector, estimating annual costs of the preferred waste management system is not exact. The following section provides a breakdown of some of the costs of the solid waste management system by selected component costs. Where appropriate, the assumptions used to compute those estimated costs are included.

It should be noted in the following analysis, where program costs are averaged for households, that an average household size in Virginia of 2.5 persons according to the 2020 US Census Bureau was used for the entire CVWMA Region. Where program costs are averaged by population, it is estimated that each person generates 4.9 pounds of MSW per day according to the EPA. Estimates for all annual costs are given in present (2024) dollars. They are derived from a combination of existing program costs, industry standards, and the best professional judgment of the CVWMA staff and its consultant.

9.1 RECYCLING

Residential: Services for drop-off centers, curbside collection, operation of yard waste processing facilities and other CVWMA recycling programs will continue to be competitively procured and contracted with the private sector in accordance with the Virginia Public Procurement Act. Anticipated revenues from sale of recycled materials are used to offset program costs. In addition to CVWMA programs, some localities may operate their own recycling and yard waste programs.

Curbside Recycling – The cost of the CVWMA curbside recycling program for collection and processing of household recyclables (OCC, mixed paper, aluminum cans, plastic bottles and containers, glass bottles and jars and cartons) is approximately $12,250,000 annually plus overhead cost in eight jurisdictions (~200,000 homes). This represents an average $5.10 per household per month for bi-weekly service. Current cost for the curbside collection and processing of recyclable materials average about $450 per ton for the 26,480 tons collected. This does not include Chesterfield County as the County no longer uses the CVWMA curbside recycling program. Instead, residents can contract directly with a hauler to pick up recycling curbside. An estimated 40,000 households (35% of total single-family homes) in Chesterfield participate in a curbside program, collecting approximately 9,700 tons annually, for an average cost of around $9.00/household/month for an estimated curbside recycling cost of $4.3 million annually.

An average of 56.5% of eligible homes set out materials in the CVWMA curbside program and the average set out is about 21 pounds per set out. Actual participation in the program is believed to be higher since not all participants set out every collection day.

Drop-Off Recycling – Cost factors for the CVWMA drop-off center programs include land, improvements, equipment, transportation, maintenance, material processing, administration and education. Current costs for the CVWMA drop-off program to the participating localities is approximately $140 per ton of recycled material and approximately 9,300 tons was collected in FY 2024 for a net cost of $1,308,397. This includes container rental, collection and transportation, processing and marketing of the material, less revenue received from the sale of the recyclables. Chesterfield, Charles City and Prince George Counties provide drop off recycling outside of the CVWMA program. Using CVWMA's cost per ton, another estimated $750,000 is spent on drop off recycling of paper cans and bottles.

In addition to the curbside collection and the drop-off program the CVWMA has procured and negotiated contracts with vendors for the collection and processing of other recyclable materials. Each member jurisdiction selects from the menu of programs best suited for the locality and the contract fees are born by the locality through the CVWMA. The cost of these programs through CVWMA is approximately $1.5 million per year, net of revenue. Other programs to meet specific needs are managed locally.

- Appliances / Metals: The locality pays a per haul collection fee and receives revenue from the sale of the material. Some localities deliver this material to the processing location. The value of the material, tied to a monthly market index, is subtracted from any cost. Depending upon market conditions this program may be a cost or a revenue stream. In recent years, this program generates significant revenue.
- CFC/HCFC: The participating jurisdiction pays a fee for each unit (air conditioners, refrigerators etc.) from which the CFC/HCFC s are extracted and recycled prior to the unit being recycled. Some jurisdictions extract and recycle this material in-house.
- Waste Tires: The vendor provides the participating localities with a trailer where used tires are stored. When the trailer is full the vendor switches out the trailer and recycles the tires. A per ton fee is paid by the participating locality for this service.
- Used oil and Antifreeze: The contractor collects the materials from the sites on an as-needed basis, processes it and markets it at no cost. CVWMA and localities receive revenue from the sale of used oil based on market indexes.
- Paints and Used Oil Filters: A collection and processing fee is charged to the locality for each container of paints and for each container of oil filters collected.
- Yard Waste Recovery and Grinding: The participating locality incurs an hourly rate for grinding and processing of yard waste or a per cubic yard fee to grind and remove the material.
- Lead Acid Batteries: The vendor pays a small fee to the CVWMA who in turn reimburses the locality for each lead-acid battery collected.
- Textiles: The vendor provides the participating localities with a trailer or container where used clothing is stored. When the trailer is full the vendor switches out the trailer or empties the container and resells or recycles the clothing. No fee is paid by the participating locality for this service.
- Electronics: A collection and processing fee is charged to the locality for collection, processing and recycling of the electronics.

Market conditions play a role in the cost of many of the CVWMA and local recycling programs as the contracts for materials such as OCC, mixed paper, metals, batteries and used oil contain revenue sharing clauses with floor and ceiling prices tied directly to market indexes.

Commercial: Costs for the commercial component of the recycling program are not itemized in this plan. Involvement by the CVWMA staff in the foreseeable future is anticipated to be minimal. There will be reliance on the free market and on volunteer and trade organizations, commercial recycling and state agencies to make this component of the program successful.

Jurisdictional Recycling Costs - Efficient implementation of the preferred recycling program among the individual jurisdictions requires selection of the program components that are most appropriate based on the overall needs the jurisdiction. The programs are selected by the local jurisdiction that pays the costs or fees associated with the program.

9.2 WASTE DISPOSAL

Materials not diverted from the waste stream through source reduction, reuse and recycling will be landfilled until such time as there is an alternative available. Landfilling costs in the CVWMA Region currently range from $30-$40/ton delivered. This cost is reflected in the tip fees charged to jurisdictions and the private sector for the use of their facilities. The tipping fee is higher for commercial and private haulers.

Under the current waste management system, utilizing the current recycling rate, approximately 530,000 tons of MSW will be landfilled annually at an estimated cost of $18.5 million (current dollars).

9.3 COLLECTION AND TRANSPORTATION

Costs for collection and transportation of recyclable materials are included for the recycling program costs of the CVWMA. Costs for collection and transportation of the remainder of the MSW (including non-recovered recycled materials) are calculated separately.

Collection includes that portion of the solid waste program that gets solid waste from the generator to a transfer or processing facility prior to disposal. For the low-density component of the program, it includes the operation of MSW convenience center sites. In medium density areas, it includes the household collection process. In high-density areas, MSW collection includes the operation of dumpster sites.

Transportation takes up where collection leaves off. It includes the movement of MSW from any transfer station or processing facility to a landfill. It also accounts for long hauls between collection routes and landfills.

Collection and transportation costs can range from $20/ton to $180/ton in the Region. Based on information currently, collection and transportation is estimated to cost over $50,000,000 annually.

9.4 TOTAL ESTIMATED COSTS

The annual estimated costs of the current preferred waste management system for MSW is $68.5 million. The total cost for recycling programs is estimated to be approximately $20.5 million. The CVWMA manages approximately $24 million annually (2024) of the MSW and recycling programs in the Region. The MSW costs were estimated based on information collected from localities and the private sector for MSW programs assuming an average cost per ton and collection costs compared to that of CVWMA programs. Table 9 below estimates annual costs by component.

Some localities may have agreements that have much lower costs associated with them. These numbers are very rough estimates and can fluctuate dramatically depending on the landscape of the solid waste operations in the CVWMA area and recycling markets. As discussed in Section 4 of this Plan, 2 sanitary landfills are no longer accepting MSW and more than 17 million tons of capacity has been removed from this Plan recently. This will have a negative economic impact to the citizens of the central Virginia area as non-recyclable waste will be disposed of in facilities outside of the Region. The addition of more landfill airspace outside the CVWMA Region is possible within the development of the Greenridge Recycling and Disposal Facility in Cumberland County.

Table 10: Estimated Annual Costs – Preferred MSW Management and Recycling Programs

System Component	Component Cost
Recycling in CVWMA Region	$20.3 million
MSW – (collection, transportation and disposal)	$68.5 million

Avoided Landfill Costs - Materials diverted from the waste stream prior to disposal, through recycling or some other means, reduce the amount of waste that ultimately end up in a landfill. Decreasing the amount of material requiring final disposal increases the operating life of landfills and may defer costs associated with permitting and construction of facility expansions and of new facilities.

There can be some cost savings in the short term, but they should be carefully calculated. The reasons for caution include the following: costs for landfills are mostly up-front, capital costs associated with site acquisition, design, permitting, and construction, these are long-term, financed costs. The only real savings realized in the short-term are the landfill operation and maintenance costs. In addition, a jurisdiction only saves money by not landfilling if the alternative is less expensive.

9.5 COST COMPARISON OF PREFERRED TO EXISTING SYSTEM

The estimates made above assume the continuation of the current waste management system and strategies and do not take into account future implementation of sustainable waste management practices, such as composting or emerging technologies, which at this time costs cannot be estimated. Balancing the economics of implementing the CVWMA Strategic Plan and Sustainable Material Management Hierarchy is critical to becoming less reliant on landfill disposal.

The existing solid waste management system is meeting the needs of the jurisdictions and is exceeding the state mandated recycling level. Ongoing progress is being made and strides will continue to move waste management strategies higher on the hierarchy.

10. IMPLEMENTATION AND PLAN AMENDMENTS

Challenges and opportunities related to the implementation of this Plan have been explored. Specific recommendations and policy concerns are proposed for consideration and for future updates of the Plan.

For discussion purposes, implementation issues are aggregated into the following categories: institutional; legal and regulatory; funding; Plan implementation and maintenance and monitoring program for evaluation of the Plan and recycling programs.

10.1 INSTITUTIONAL ISSUES

The following institutional issues are examined related to Plan implementation: regional versus local recycling programs; ownership of solid waste management facilities; and various management options for waste collection and transfer operations. In addition, barriers to the implementation of the Plan are discussed and specific recommendations are proposed.

10.1.1 Local Versus Regional Programs

A significant issue is the appropriate level (regional or local) of recycling programs to implement the preferred regional waste management system.

Jurisdiction Programs: Individual jurisdictions may contract their recycling programs out to private waste management firms or provide the service directly. If each individual locality were to contract out its program, the costs of the combined individual programs would be similar to those for a regionally operated program, since larger waste haulers would be able to provide economies of scale benefits. Some of the smaller, more rural localities might have trouble contracting out some of these services due to the relatively small quantities generated.

The major advantage of local programs is that an individual jurisdiction may tailor a program to their specific needs. This flexibility allows local programs to have a different focus and achieve a different rate of recycling.

Authority (Regional) Programs: Under a regional program, a single regional entity (CVWMA) provides or contracts with private companies for the provision of some recycling and solid waste programs within multiple localities. Although this approach may eliminate some of the customization available to locally sponsored programs, flexibility still exists to tailor regional programs to meet local preferences and needs. These programs are offered as a menu of choices that the jurisdiction may either opt in or out of providing flexibility to the local government.

Regional programs provide opportunities for economies of scale that smaller local programs may not offer. Capital-intensive facilities, such as recycling drop-off centers and material recovery facilities, may thus be less expensive on a per ton basis. Economies of scale are also evident in processing equipment, collection equipment, operating personnel, and marketing.

However, an advantage of a regionally sponsored recycling program is that the risks from marketing and program implementation are shared by all localities. The volatility of the recycling markets makes revenue streams for recycled materials highly unpredictable. Working under the umbrella of a single agency, such as the CVWMA, the Region gains a better posture for marketing of recyclable materials. Commodity revenues are greater for larger quantities. Furthermore, market stability can be enhanced with consistently large quantities of recycled materials available for purchasing.

Recommendation: The existing system where CVWMA provides a menu of choices to participating jurisdictions is an approach that works well to addressing recycling and waste management challenges. This, coupled with local jurisdiction's use of customized programs that they have developed with individual contractors has been successful in achieving state recycling mandates. Localities in the Region

should evaluate cost and benefits, for the government as well as citizens when making decisions between local and regional participation.

10.1.2 Ownership of Facilities

An important institutional issue pertains to the ownership of solid waste management facilities. Specifically, this issue focuses on the relative merits of public versus private ownership and local versus authority ownership.

Public Ownership: If solid waste management facilities are publicly owned, the public entity bears all the operational risks and costs with the objective of providing a waste management service at a low cost to the public. Public ownership provides some certainty about future costs and availability of service.

One way to avoid some of the disadvantages of public ownership is public-ownership with private contracted operations, such as the arrangement the City of Richmond and several of the Counties use for their transfer stations/convenience centers. A service contract with a private operator could be on terms acceptable to the jurisdiction and provides competition in selecting the best provider. Some of the operating risks such as liability, fuel costs and market risk are transferred to the private sector.

Private Ownership: Private ownership or public/private contracting, particularly for landfill facilities, is a trend that is expected to continue in the CVWMA area. This option transfers many risks to the private sector, although some risks to local governments remain.

There are several disadvantages of private ownership including higher financing cost; profit must be included in the project and the financial stability of the contractor. The government has little control over the marketplace, financial soundness or the operations of a privately-owned facility. Therefore, in the case of a solid waste facility such as a landfill or recycling facility, government cannot be certain about the availability of future disposal capacity, tipping fees and recycling markets.

Recommendation: Based on the preferred regional solid waste management system, the issue of ownership of facilities needs to be addressed in three critical areas of the Plan: recycling; transfer operations; and, landfill disposal.

1. Recycling Facilities: The evolution of recycling programs and lack of publicly owned facilities generally have worked toward private ownership of recycling facilities, except for small publicly-owned recycling drop-off centers. Therefore, the continued involvement of the private sector in recycling programs should help implement the preferred system, with the private sector providing necessary equipment and processing centers. Should this situation change and the private sector either become uneconomical, operate outside jurisdictional needs or capacity becomes an issue, the public sector may need to provide its own material recovery facilities. These could be coupled with other existing waste operations such as drop off sites or transfer stations or they could be constructed on publicly owned property.

2. Transfer Facilities: With reliance on the private sector to provide waste collection and disposal services and the closure of public landfills, it will be increasingly necessary to provide transfer facilities to consolidate and transfer solid waste to out of jurisdiction landfills. Several of these facilities exist and it is anticipated that others may be constructed on the site of closed public landfills or other publicly/privately owned property.

3. Landfill Facilities: There are no publicly owned landfills in the Region anymore and thus the Region is reliant on private landfill facilities within and in proximity to the CVWMA Service Area. This increased reliance on private landfills raises uncertainties about the future availability and costs for landfilling in these private facilities. Therefore, it is recommended that the CVWMA and its jurisdictions seek alternatives to landfill and/or secure public disposal capacity in private landfills to meet these future needs.

10.1.3 Collection and Transfer Operations

The following basic options for collection and transfer of waste are currently used to some degree in the Service Area and are recommended for continuation under the preferred regional waste management system: free market; franchise operations; and public operation.

Free Market: Jurisdictions within the CVWMA have historically relied upon the free market for collection and disposal of much of the Service Area's waste. Less than 20% percent of the MSW generated in the Service Area is municipally collected. The economic recession placed considerable pressure on local jurisdictions with municipal operations to explore privatization of their residential waste collection and disposal programs.

The free market system is expected to provide incentives for higher quality collection services and lower costs down through competition. The rate charged to the consumer for these services is related to the frequency and type of collection service and transfer/disposal costs. Concern exists about the validity of this assumption for all areas of the Region.

Any savings these firms may realize in lower tipping fees due to the decrease in the amount of waste delivered to landfills resulting from source reduction and recycling programs may not be passed on to the consumer. Therefore, the average consumer being served in these areas sees no savings from recycling activity.

Recommendation: The existing system is functioning well, and no significant changes are proposed. Improvements may be possible however and CVWMA, working closely with local governments will investigate the private residential waste hauling practices in the CVWMA's Service Area and develop specific options for consideration by local governments.

10.2 LEGAL AND REGULATORY ISSUES

The following legal and regulatory issues were identified for examination: waste stream flow control; voluntary versus mandatory recycling; material bans; and waste prohibitions.

10.2.1 Waste Stream Flow Control

Flow control is a means to regulate by local ordinance the delivery to designated waste management facilities of waste generated or disposed of in that jurisdiction. Section 15.2-931 of the Code of Virginia permits local governments to adopt ordinances requiring flow control, if a public hearing is held and it is found that (1) private or regional disposal facilities are either unavailable, inadequate, unreliable, or not economically feasible to meet current and future waste disposal needs, and (2) flow control is needed for financial considerations (This flow control does not apply to recyclable materials, either source-separated or separated from the mixed waste stream, or to construction debris to be disposed of in a landfill). In addition, localities within the CVWMA have been given enabling the authority to implement flow control to require waste to be sent to resource recovery facilities.

The primary reason for flow control is financial (i.e., protect public investment). It allows localities to borrow money for a solid waste management facility, since it reduces risk and uncertainty. It may also help municipalities to contract for recycling and waste disposal to ensure waste flow is delivered.

The current and preferred regional waste management system does not rely on flow control to be implemented due to the reliance on the private sector for waste management services and the competitive nature of disposal options. As long as a competitive situation for waste disposal exists, then flow control is not necessary

10.2.2 Voluntary Versus Mandatory Recycling

The success of any recycling program, whether mandatory or voluntary, relies heavily on the public's participation. Mandatory recycling programs may result in participation rates that are significantly higher than voluntary programs but there likely will be a correspondingly increased cost to the jurisdiction.

Supporters of voluntary programs argue that mandatory programs can infringe on people's rights, or at a minimum be needlessly strict, especially if recycling services are not convenient. Voluntary programs can be enhanced through economic incentives, such as user charges that consider the quantity of waste disposed (pay-as-you-throw). Such charges would be difficult to implement in the Region due to the large portion of the waste stream collected by private waste haulers.

Enabling legislation exists to require separation of recyclable materials. The decision to implement mandatory programs is usually driven by limited disposal capacity; however, it may also be enacted to demonstrate a locality's commitment to recycling.

A mandatory program can also assure more stable and reliable materials flow than a voluntary program. However, a mandatory program can also result in saturated local material markets if markets are unstable or relatively undeveloped.

The enforcement of mandatory programs is also an issue. Generally, enforcement ranges from non-existent to a fully strict and actively enforced program. The higher the level and intensity of enforcement the greater the costs and administrative burden would be to local government.

10.2.2.1 Material Bans

One method to reduce the amount of MSW or toxic materials entering the waste stream is through material bans (this could be considered in this category of mandatory recycling programs). Currently in Virginia, no enabling legislation exists to allow localities to ban specific items from retail sale or use within their jurisdiction for the specific purpose of reducing MSW.

Bans have been enacted elsewhere in the United States at the statewide level and, where enabling legislation exists, at the local government level to reduce those waste materials which are perceived to be undesirable. Examples of these types of bans include plastics, CRTs, multiple packaging for individual products, foam plastic, and non-degradable items.

Section 15.2 of the Code of Virginia permits local governments to ban leaves and grass, but not other organics, from all landfills within their respective jurisdictions (Local governments that own landfills have the right to ban any waste from those landfills).

Recommendations: Based on the needs of the preferred regional waste management system, the following recommendations are presented:

The nature of mandatory programs supports the continued implementation of voluntary programs. If these programs become unsuccessful and/or if higher participation rates are needed to meet State mandates, then mandatory programs may be considered. However, it is important that all efforts should be made to adequately educate the public about recycling programs, make these programs conveniently available and to consider appropriate incentives to promote recycling and reduction/reuse before relying on mandatory programs. This option is available to any jurisdiction that believes it is necessary.

Materials bans are beyond the limited scope of the regional planning effort and are not necessary to the successful implementation of the preferred regional waste management system.

The effectiveness of regional voluntary yard waste recycling programs is such that there does not appear to be a need for the prohibition of such wastes at landfill facilities at this time.

10.3 FUNDING ISSUES

Funding of the regional waste management system rests primarily with the local governments and the customers who pay for commercial services. The major funding issues involve the increasing demand for local government to have available waste disposal, residential service, and recycling.

In identifying and assessing funding options available for recycling and other solid waste management programs, taxes, user charges, bonds, and miscellaneous sources of revenue were considered. CVWMA member jurisdictions fund the recycling and solid waste programs in a variety of ways including user fees, taxes and litter grants.

10.4 CVWMA FUNDING

CVWMA's administration and general operating expenses are currently funded through per capita assessments of the participating localities. Individual programs are funded by participating localities based on contractually based fees for the services. It is assumed that funding for major capital projects (none are proposed in the preferred regional waste management plan) would be through revenue bonds, either issued by the Authority or a local government.

Local funding of CVWMA has proven adequate and state recycling mandates are being met so no change is proposed to the funding mechanism. Local jurisdictions will fund these programs by whatever means they determine best meets their needs.

10.5 PLAN MAINTENANCE AND AMENDMENTS

With adoption of the Plan, a framework for maintaining, updating, and amending the Plan is established. This section presents a recommended institutional structure and key elements for this framework.

10.5.1 Policy Objectives

The following policy objectives were used as guidelines in developing the specific recommendations for the institutional framework and process:

- Local governments within the regional multi-jurisdictional and agency framework must be able to meet their obligations under Section 10.1-1411 of the Virginia Waste Management Act and Regulations for Solid Waste Management Planning, Amendment 1 9 VAC 20-130et seq.; and,
- The core strategies and actions of the adopted Plan should be implemented as agreed upon by participating local governments and Planning District Commissions; and,
- Plan consistency requirements for public solid waste management facilities and services should be as minimal and unobtrusive as possible; and,
- The Plan should be kept current, based on the best information available, and should accurately reflect changing conditions and public policy; and,
- The on-going planning process should facilitate and encourage effective public participation and input from elected officials.

10.5.2 Institutional Framework

The CVWMA ensures the Plan is maintained and updated. In addition to its CVWMA project planning and programmatic responsibilities, the TAC would continue to provide technical assistance to the Authority's Board and staff on Plan development, maintenance, and implementation issues. The Citizen Advisory Committee would/could be reinstated to provide a formal mechanism for citizen input.

10.5.3 Local Government Support and Commitment

Regional success in continuing to meet State and regional recycling goals through the implementation of the Central Virginia Solid Waste Management Plan is directly tied to the level of commitment and support from local governments.

10.5.4 Plan Maintenance

Plan maintenance refers to those activities required to monitor and evaluate progress in implementing the Plan and meeting recycling objectives. It includes the maintaining and updating of the solid waste system information and preparation of Plan amendments and updates.

The CVWMA staff and its TAC are actively involved in Plan maintenance activities and the preparation of plan updates and amendments. The CVWMA and TAC have specific responsibility for ensuring implementation of the adopted Plan through a consistency review process. The CVWMA is responsible for specific projects and operational planning and the evaluation of the Authority's programs as they relate to meeting the objectives of the Plan. Local jurisdictions are responsible for operational planning and the evaluation of programs and activities that the jurisdiction operates apart from the CVWMA.

10.6 IMPLEMENTATION MILESTONES

Implementation of the Plan over the 20-year planning period will require periodic review and examination. These events will occur at least every 5 years as stipulated in the Virginia Waste Management Regulations. Also, additional review will be performed should any extraordinary events occur. It is intended that these reviews will enable the CVWMA Board of Directors and staff to keep abreast of trends in solid waste management and in modifications to strategies and programs as they affect operations of the CVWMA and regional changes. All periodic reviews will be the responsibility of the CVWMA staff, with assistance and input from others as appropriate.

Annual Reviews:

- DEQ regulations require annual computation and reporting of recycling rates. Data will be calculated by staff and reported to the Technical Advisory Committee for review and input. Once their comments are received, staff will make an annual report to the full CVWMA Board of Directors. It is expected that this will occur at the Board of Director's April meeting.
- During and at the conclusion of each session of the General Assembly, staff will prepare reports on the actions of the General Assembly, as those actions pertain to the issue of solid waste management. This report will be submitted to the Technical Advisory Committee and the full Board of Directors.

Five-Year Review:

- At the conclusion of each five-year period after DEQ's notification of the acceptance of the Plan, CVWMA staff will initiate a review of waste disposal capacities. That review will examine the waste generation estimates for the next twenty-year rolling period, as determined by the latest and most reliable waste generation rates and will compare this with recycling activities and the capacity of landfills and any other solid waste facilities in use by CVWMA contractors and prepare a report. The purpose of this report is to verify adequate recycling and disposal capacity is available over the next 20 years, as well as to give an indication of potential need to identify additional landfill capacity, recycling or alternative solid waste disposal techniques.

Periodic Review:

- The United States Department of Commerce conducts a full census every 10 years. As soon as the initial results of the census are available, staff will work with the Richmond Regional and Crater PDCs to compare the results of the census with the population projections contained in this Plan.

The new census numbers will then be used in subsequent reviews as the population data for preparing solid waste quantity estimates. Should a review of the census counts prove at considerable variation to the estimates contained within the adopted Plan, staff would prepare an interim document to project future solids waste volumes for comparison with landfill capacities.

- Over the life of the Plan, it is possible that additional members may be added to the CVWMA. Should this occur, staff would prepare an analysis of the waste generation quantities from the prospective member to provide assurance that the waste disposal resources available to CVWMA are sufficient to provide adequate service to the potential member.

10.7 AMENDMENTS TO THE APPROVED PLAN

The original Solid Waste Management Plan became of record when the Plan was approved by the Central Virginia Waste Management Authority Board of Directors, adopted by the two Planning District Commissions and reviewed and approved by the (Virginia) Department of Environmental Quality. The Five-Year Review and updates shall become official upon approval by the Authority Board of Directors and approved by the DEQ. This updated Plan is intended to cover the 20-year period from 2024 through 2044.

In the future, there may arise a need to amend the Plan. Amendments would be needed for items not shown in the adopted plan, such as changes in the physical features of the solid waste management system, changes in technologies and techniques for the disposal of solid waste, or the boundary of the CVWMA area. DEQ regulations have divided amendments to an approved plan into two classifications: major and minor. The process for all amendments is set forth in DEQ regulations (9 VAC 20-130-175 and 9 VAC 20-130-220).

10.7.1 Major Amendments

Major Amendments to an Approved Solid Waste Management Plan as defined by Amendment 1, 9VAC 20-130-175 include:

a. Any addition, deletion, or cessation of any solid waste disposal facility;

b. Any increase in landfill capacity;

c. Any change that move toward implementation of a state management strategy that lower in the waste management hierarchy;

d. Action plan(s), including an action plan to address a planning unit's recycling rate that has fallen below the statutory minimum; or

e. Any change to membership in the approved area, including planning unit boundaries.

Requests for major amendments for items 1) and 2) above may be initiated by CVWMA, the TAC, member jurisdictions, or a private entity. CVWMA staff, in consultation with the TAC will prepare a report on the proposed amendment. The proposed amendment in summary form will be advertised and the written report made available to the public for review and inspection.

A formal public hearing by the CVWMA Board of Directors will be held, at which time members of the public may make their comments known. After due consideration of comments received, the CVWMA Board shall take action. If the Board approves the amendment, then the amendment will be sent to the two Planning District Commissions. It is necessary for all three bodies, the CVWMA Board and the two PDCs, to approve a proposed amendment before any further action is taken. Once all three bodies have approved the amendment, it shall be submitted to the DEQ for review and approval. Once approved by the DEQ, the amendment becomes a permanent part of the adopted plan and in effect.

Requests for a major amendment to change membership, that is, to change the boundary, of CVWMA Planning Area, may be made by any member of the CVWMA or by any governing body wishing to join the Planning Area. The process for amending a Regional Planning Area is outlined in 9 VAC 20-30-100.

10.7.2 Minor Amendments

Minor amendments shall include:

a. Any addition, deletion, or cessation of operation of any facility that in not a solid waste disposal facility;

b. Any change that moves toward implementation of a waste management strategy that in higher in the state management hierarchy; or

c. Any non-substantive administrative change such as a change in name. Minor amendments shall be submitted by the CVWMA to the DEQ for notation and shall be incorporated into the Plan.

Appendix A

Approval by CVWMA Board of Directors Authorizing the 2024 Plan Update

RESOLUTION 25-02

A resolution authorizing the 5-year update to the Central Virginia Solid Waste Management Plan for the 20-year planning period 2024-2044 and directing the transmittal of the revised Central Virginia Solid Waste Management Plan to the Virginia Department of Environmental Quality (DEQ) in accordance with Section 10.1-1411 of the Code of Virginia.

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond; the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George; and the Town of Ashland, and

WHEREAS, Section 9VAC20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration and landfilling, and

WHEREAS, the Central Virginia Solid Waste Management Plan was adopted by the CVWMA Board of Directors on February 20, 2004, approved by the Crater Planning District Commission on March 17, 2004, and approved by the Richmond Regional Planning District Commission on April 8, 2004, and

WHEREAS, the Central Virginia Solid Waste Management Plan was approved by the Virginia DEQ on August 20, 2004, and

WHEREAS, subsequently, the Central Virginia Solid Waste Management Plan was amended twelve times at various times since 2004 and was updated in accordance with the Virginia solid waste regulations, and

WHEREAS, Section 9VAC20-130 of the Code of Virginia requires Solid Waste Planning Areas to update the solid waste management plan every 5 years for the next 20-year planning period, and

WHEREAS the CVWMA as the Plan holder for the Central Virginia Solid Waste Management Plan has updated the plan for previous planning periods in 2009, 2014, and 2019 and has updated the Plan for the 20-year planning period 2024-2044 as outlined in Agenda Item No. 5 of the September 20, 2024 Board Agenda, and

THEREFORE, BE IT RESOLVED, the Central Virginia Solid Waste Management Plan projects waste management needs of the region for a 20-year planning period of 2024-2044; and

THEREFORE, BE IT RESOLVED, the Central Virginia Waste Management Authority, upon review by the Technical Advisory Committee, the updated Central Virginia Solid Waste Management Plan shall be transmitted to the Virginia DEQ on or about September 30, 2024, and that this resolution shall be in full force and effect upon its passage.

Adopted this 20th of September 2024

ATTEST: _____
Miles M. Jones, Chairman

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Appendix B
List of Abbreviations and Acronyms

Abbreviation	
CAC	Citizen Advisory Committee
C/D/D or CDD	Construction, Demolition and Debris
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CRT	Cathode Ray Tube
CPDC	Crater Planning District Commission
CVWMA	Central Virginia Waste Management Authority
CY	Calendar Year
DEQ	(Virginia) Department of Environmental Quality
DOT	Department of Transportation
EPA	(U.S.) Environmental Protection Agency
FY	Fiscal Year
HCFC	Hydrochlorofluorocarbon
HDPE	High Density Polyethylene
HHW	Household Hazardous Waste
HSWA	Hazardous and Solid Waste Amendments (to RCRA)
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
NAAQS	National Ambient Air Quality Standard
Ni-Cad	Nickle-Cadmium
OCC	Old Corrugated and Cardboard
ONP	Old News Print
PAYT	Pay-As-You-Throw
PBR	Permit by Rule
PCB	Polychlorinated Biphenyl
PDC	Planning District Commission
PET	Polyethylene Terephthalate
POTW	Public Owned Treatment of Wastewater
PRM	Principal Recyclable Material
RCRA	Resource Conservation and Recovery Act
RMW	Regulated Medical Waste
RRPDC or PlanRVA	Richmond Regional Planning District
SIP	State Implementation Plan
SRM	Secondary Recyclable Material
SWMP	Solid Waste Management Plan
TAC	Technical Advisory Committee
VDES	Virginia Department of Emergency Services
VWMA	Virginia Waste Management Act
UL	Underwriters Laboratories

Appendix C
Solid Waste Facilities

Permit ID	Facility Name	Operating Status	Permit Issued Date	Permit Type	City / County
Solid Waste Facilities					
PBR039	Virginia Recycling Corporation	Active	5/27/1994	Solid Waste Permit-by-Rule	New Kent County
PBR052	Aqua Clean Environmental of Virginia	Active	1/7/1994	Solid Waste Permit-by-Rule	Richmond City
PBR160	Richmond Transfer Station and Convenience Center	Active	2/11/2000	Solid Waste Permit-by-Rule	Richmond City
PBR175	DOC Powhatan Correctional Center	Active	9/19/2001	Solid Waste Permit-by-Rule	Powhatan County
PBR189	Hanover County - 301 Solid Waste Facility	Active	12/19/2002	Solid Waste Permit-by-Rule	Hanover County
PBR507	Port Tobacco at Weanack	Not Applicable	3/30/2004	Solid Waste Permit-by-Rule	Charles City County
PBR512	Hanover County - 301 Solid Waste Facility	Active	8/30/2004	Solid Waste Permit-by-Rule	Hanover County
PBR516	County Waste, LLC	Active	12/23/2004	Solid Waste Permit-by-Rule	New Kent County
PBR517	Stericycle Chesterfield RMW Transfer Station	Active	2/25/2005	Solid Waste Permit-by-Rule	Chesterfield County
PBR543	The Sustainability Park LLC	Inactive	6/18/2009	Solid Waste Permit-by-Rule	Chesterfield County
PBR546	S. B. Cox Recycling Center MRF	Active	6/12/2008	Solid Waste Permit-by-Rule	Henrico County
PBR552	Medical College of Virginia	Active	1/12/2009	Solid Waste Permit-by-Rule	Richmond City
PBR556	Green Zone Investments LLC	Active	8/14/2009	Solid Waste Permit-by-Rule	Charles City County
PBR571	County Waste MRF	Active	5/26/2011	Solid Waste Permit-by-Rule	Chesterfield County
PBR590	Tri City Regional Disposal and Recycling Services	Active	1/19/2012	Solid Waste Permit-by-Rule	Petersburg City
PBR591	Henrico County DPU Springfield Rd Waste Management	Active	5/7/2014	Solid Waste Permit-by-Rule	Henrico County
PBR599	623 Landfill	Active	2/27/2014	Solid Waste Permit-by-Rule	Goochland County
PBR606	Daniels Sharpsmart RMW Transfer Station	Active	2/4/2015	Solid Waste Permit-by-Rule	Henrico County
PBR617	Curtis Bay Medical Waste Services Virginia LLC	Active	7/27/2016	Solid Waste Permit-by-Rule	Petersburg City
PBR623	TFC Recycling - Chester Facility	Active	7/26/2017	Solid Waste Permit-by-Rule	Chesterfield County
PBR624	Agape Pet Services of Virginia LLC	Active	11/7/2017	Solid Waste Permit-by-Rule	Henrico County
PBR630	County Waste - Hanover	Active	6/4/2019	Solid Waste Permit-by-Rule	Hanover County
PBR631	BFI Old Dominion Landfill	Active	11/14/2018	Solid Waste Permit-by-Rule	Henrico County
PBR642	NEIE Medical Waste Services, LLC	Active	6/4/2024	Solid Waste Permit-by-Rule	Henrico County
PBR645	Clearfield MMG, Inc.	Active	7/27/2024	Solid Waste Permit-by-Rule	Petersburg City
SWP085	Chesterfield County - Chester Landfill	Post Closure	12/11/1972	Solid Waste Full Permit	Chesterfield County
SWP102	Charles City County Landfill	Post Closure	4/20/1973	Solid Waste Full Permit	Charles City County
SWP129	BFI Charles City Road Landfill	Not Applicable	9/28/1973	Solid Waste Full Permit	Henrico County
SWP179	Goochland County Sanitary Landfill	Post Closure	1/3/1975	Solid Waste Full Permit	Goochland County
SWP201	Hopewell City Landfill	Post Closure	4/29/1976	Solid Waste Full Permit	Hopewell City
SWP228	Tri City Regional Disposal and Recycling Services	Active	7/18/1977	Solid Waste Full Permit	Petersburg City
SWP270	Taylor Road Landfill	Active	7/6/1979	Solid Waste Full Permit	Chesterfield County
SWP288	US Federal Correctional Complex - Petersburg	Post Closure	12/21/1979	Solid Waste Full Permit	Prince George County
SWP314	Hanover County - 301 Solid Waste Facility	Post Closure	12/23/1980	Solid Waste Full Permit	Hanover County
SWP318	Chesterfield County - Northern Area Landfill	Post Closure	1/25/1981	Solid Waste Full Permit	Chesterfield County
SWP402	Chesterfield County - Southern Area Landfill	Not Applicable	2/18/1983	Solid Waste Full Permit	Chesterfield County
SWP506	623 Landfill	Active	3/20/1987	Solid Waste Full Permit	Goochland County
SWP523	JSJR Property LLC	Not Applicable	7/26/1988	Solid Waste Full Permit	Henrico County
SWP524	The East End Landfill	Active	7/26/1988	Solid Waste Full Permit	Henrico County
SWP531	Charles City County Landfill	Active	9/18/1989	Solid Waste Full Permit	Charles City County
SWP545	Henrico County DPU Springfield Rd Waste Management	Post Closure	12/15/1992	Solid Waste Full Permit	Henrico County
SWP553	BFI Old Dominion Landfill	Active	4/22/1993	Solid Waste Full Permit	Henrico County
SWP573	819 Virginia LLC	Active	5/5/1995	Solid Waste Full Permit	Hanover County
SWP574	Ashcake Road Landfill, Inc.	Active	9/15/1994	Solid Waste Full Permit	Hanover County
SWP587	Shoosmith Sanitary Landfill	Active	12/6/1995	Solid Waste Full Permit	Chesterfield County
SWP604	Skinquarter Land CDD Landfill	Active	8/25/2010	Solid Waste Full Permit	Chesterfield County
SWP609	Dominion Energy - Chesterfield Power Station	Active	6/29/2016	Solid Waste Full Permit	Chesterfield County

Permit ID	Facility Name	Operating Status	Permit Issued Date	Permit Type	City / County
Closed Facilities					
PBR009	623 Landfill	Clean Closed	12/18/1992	Solid Waste Permit-by-Rule	Goochland County
PBR014	Shoosmith Sanitary Landfill	Clean Closed	9/18/1991	Solid Waste Permit-by-Rule	Chesterfield County
PBR023	Goochland County of Transfer Station	Clean Closed	1/7/1994	Solid Waste Permit-by-Rule	Goochland County
PBR035	Fareva Richmond Incorporated	Clean Closed	6/27/1995	Solid Waste Permit-by-Rule	Henrico County
PBR038	TPS Technologies Incorporated	Clean Closed	5/21/1991	Solid Waste Permit-by-Rule	Chesterfield County
PBR046	Purgo Incorporated	Closed	2/6/1991	Solid Waste Permit-by-Rule	Hanover County
PBR054	Chemtech of Richmond Incorporated	Clean Closed	3/9/1994	Solid Waste Permit-by-Rule	Richmond City
PBR073	Collier Rail Yard Transfer Station	Clean Closed		Solid Waste Permit-by-Rule	Petersburg City
PBR079	Safety Kleen Systems Incorporated - Chester	Closed	6/19/1995	Solid Waste Permit-by-Rule	Chesterfield County
PBR082	Chesterfield County - Northern Area Landfill	Clean Closed	3/24/1995	Solid Waste Permit-by-Rule	Chesterfield County
PBR083	Chesterfield County - Southern Area Landfill	Clean Closed	3/24/1995	Solid Waste Permit-by-Rule	Chesterfield County
PBR113	Stericycle Chesterfield RMW Transfer Station	Clean Closed	4/11/1997	Solid Waste Permit-by-Rule	Chesterfield County
PBR131	Duquesne Energy Incorporated	Clean Closed	6/30/1998	Solid Waste Permit-by-Rule	Hopewell City
PBR142	Tire Recyclers Incorporated	Clean Closed	12/7/1998	Solid Waste Permit-by-Rule	Charles City County
PBR150	Spruance Genco LLC	Clean Closed	3/12/1999	Solid Waste Permit-by-Rule	Richmond City
PBR174	Medical College of Virginia	Closed	6/29/2001	Solid Waste Permit-by-Rule	Richmond City
PBR177	AERC com Incorporated	Closed	10/12/2001	Solid Waste Permit-by-Rule	Hanover County
PBR187	Stericycle Chesterfield RMW Transfer Station	Clean Closed	10/31/2002	Solid Waste Permit-by-Rule	Chesterfield County
PBR231	DOC Central Virginia Correctional Center for Women	Closed	1/1/1996	Solid Waste Permit-by-Rule	Chesterfield County
PBR266	DOC Powhatan Correctional Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Powhatan County
PBR267	Virginia Correctional Center for Women	Closed	1/1/1996	Solid Waste Permit-by-Rule	Goochland County
PBR268	Powhatan Reception and Classification Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Goochland County
PBR269	Deep Meadow Correctional Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Powhatan County
PBR270	DOC Powhatan Correctional Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Powhatan County
PBR271	James River Correction Center	Clean Closed	1/1/1996	Solid Waste Permit-by-Rule	Goochland County
PBR276	Hanover Health District	Closed	1/1/1996	Solid Waste Permit-by-Rule	Hanover County
PBR283	John Randolph Medical Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Hopewell City
PBR307	DOC New Kent Correctional Unit 16	Closed	1/1/1996	Solid Waste Permit-by-Rule	New Kent County
PBR337	DMHMRSAS Central State Hospital	Closed	1/1/1996	Solid Waste Permit-by-Rule	Petersburg City
PBR338	DMHMRSAS H W Davis Medical Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Petersburg City
PBR339	DBHDS - Southside Virginia Training Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Petersburg City
PBR354	Woody Funeral Home Laburnum Chapel	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR355	Retreat Hospital	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City

PBR356	Spainhour Stephen E	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR357	Saint Marys Hospital	Closed	1/1/1996	Solid Waste Permit-by-Rule	Henrico County
PBR358	Woody Funeral Home Incorporated	Closed	1/1/1996	Solid Waste Permit-by-Rule	Henrico County
PBR359	Virginia Blood Services	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR360	Richmond Community Hospital	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR361	DOC Virginia State Penitentiary	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR362	McMunn Michael O	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR363	Richmond Health and Safety Building	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR364	DGS Richmond City	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR365	Richmond Childrens Hospital	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR366	CJW Medical Center - Chippenham Campus	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR367	DMHMRSAS VA Treatment Center	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR368	Malone Douglas R	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR369	Henrico Doctors Hospital - Forest Campus	Closed	1/1/1996	Solid Waste Permit-by-Rule	Henrico County
PBR370	Huband Jr Albert L Ltd	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR371	CJW Medical Center - Johnston Willis Campus	Closed	1/1/1996	Solid Waste Permit-by-Rule	Chesterfield County
PBR372	Levin Jeffery	Closed	1/1/1996	Solid Waste Permit-by-Rule	Richmond City
PBR523	Advanced Technologies Incorporated	Clean Closed	11/8/2005	Solid Waste Permit-by-Rule	Henrico County
PBR532	The Sustainability Park LLC	Closed	5/4/2007	Solid Waste Permit-by-Rule	Chesterfield County
PBR181	Watkins Nurseries Inc	Clean Closed	10/3/2002	Solid Waste Permit-by-Rule	Chesterfield County
PBR614	Sharps Compliance Inc	Closed	10/26/2015	Solid Waste Permit-by-Rule	Henrico County
SWP006	JH Smith Landfill	Closed	6/21/1971	Solid Waste Full Permit	Prince George County
SWP016	Petersburg City Landfill - Johnson Road	Closed	8/10/1971	Solid Waste Full Permit	Petersburg City
SWP036	Goochland County Sanitary Landfill	Closed	12/29/1971	Solid Waste Full Permit	Goochland County
SWP058	American Tobacco - Chesterfield	Clean Closed	5/1/1972	Solid Waste Full Permit	Chesterfield County
SWP068	American Tobacco - Chesterfield	Closed	8/2/1972	Solid Waste Full Permit	Chesterfield County
SWP077	New Kent County of Landfill	Closed	10/11/1972	Solid Waste Full Permit	New Kent County
SWP079	DuPont Specialty Products USA LLC - Spruance Plant	Closed	10/20/1972	Solid Waste Full Permit	Chesterfield County
SWP094	Powhatan County of Landfill	Closed	3/22/1973	Solid Waste Full Permit	Powhatan County
SWP121	DuPont Specialty Products USA LLC - Spruance Plant	Closed	8/29/1973	Solid Waste Full Permit	Chesterfield County
SWP135	Henrico County DPU Springfield Rd Waste Management	Closed	11/14/1973	Solid Waste Full Permit	Henrico County
SWP136	Nine Mile Road Landfill	Closed	11/14/1973	Solid Waste Full Permit	Henrico County
SWP137	Petersburg City Landfill - Fleet Street	Closed	11/19/1973	Solid Waste Full Permit	Petersburg City
SWP140	Aleris Rolled Products Incorporated	Closed	12/3/1973	Solid Waste Full Permit	Chesterfield County
SWP144	Mechanicsville Landfill	Closed	1/10/1974	Solid Waste Full Permit	Hanover County
SWP145	Elmont Landfill	Closed	1/10/1974	Solid Waste Full Permit	Hanover County
SWP146	Montpelier Landfill	Closed	1/10/1974	Solid Waste Full Permit	Hanover County
SWP150	Chesterfield County - Fort Darling Landfill	Closed	3/19/1974	Solid Waste Full Permit	Chesterfield County
SWP156	Hercules Aqualon Landfill	Closed	3/29/1974	Solid Waste Full Permit	Hopewell City
SWP158	Prince George County Sanitary Landfill	Closed	5/13/1974	Solid Waste Full Permit	Prince George

					County
SWP166	Petersburg City Landfill - Puddledock Road	Closed	7/15/1974	Solid Waste Full Permit	Petersburg City
SWP173	Willie Cosby CDD Landfill	Closed	8/19/1974	Solid Waste Full Permit	Henrico County
SWP186	Continental Can Landfill	Closed	5/23/1975	Solid Waste Full Permit	Hopewell City
SWP188	M and M Wrecking Company Inc Sanitary Landfill	Closed	7/3/1975	Solid Waste Full Permit	Henrico County
SWP191	Chesterfield Paper Site	Closed	10/20/1975	Solid Waste Full Permit	Chesterfield County
SWP192	Hopewell Water Renewal	Closed	10/30/1975	Solid Waste Full Permit	Hopewell City
SWP211	Shoosmith Sanitary Landfill	Closed	9/29/1976	Solid Waste Full Permit	Chesterfield County
SWP225	DuPont Specialty Products USA LLC - Spruance Plant	Closed	6/21/1977	Solid Waste Full Permit	Chesterfield County
SWP231	Hopewell Water Renewal	Closed	8/10/1977	Solid Waste Full Permit	Hopewell City
SWP235	S B Cox Charles City Road CDD Landfill	Closed	10/17/1977	Solid Waste Full Permit	Henrico County
SWP237	US Army Garrison and Fort Lee	Closed	12/15/1977	Solid Waste Full Permit	Prince George County
SWP239	US Army Garrison and Fort Lee	Closed	1/5/1978	Solid Waste Full Permit	Prince George County
SWP241	AdvanSix Resins & Chemicals LLC	Closed	2/6/1978	Solid Waste Full Permit	Hopewell City
SWP244	Georgetown Landfill	Closed	3/16/1978	Solid Waste Full Permit	Hanover County
SWP252	State Fair Grounds Sanitary Landfill	Closed	8/15/1978	Solid Waste Full Permit	Henrico County
SWP264	Petersburg City Sewage Treatment Plant Landfill	Closed	3/9/1979	Solid Waste Full Permit	Petersburg City
SWP271	Hopewell Water Renewal	Closed	7/6/1979	Solid Waste Full Permit	Hopewell City
SWP290	Richmond City of East Richmond Road Sanitary Lan	Closed	7/16/1982	Solid Waste Full Permit	Richmond City
SWP296	DuPont Specialty Products USA LLC - Spruance Plant	Closed	4/25/1980	Solid Waste Full Permit	Chesterfield County
SWP302	Chesterfield County - Northern Area Landfill	Closed	6/10/1980	Solid Waste Full Permit	Chesterfield County
SWP359	Willoughby Tree Service	Closed	6/18/1982	Solid Waste Full Permit	Chesterfield County
SWP365	Kings Dominion	Closed	7/28/1982	Solid Waste Full Permit	Hanover County
SWP377	Shoosmith CDD Landfill	Closed	10/20/1982	Solid Waste Full Permit	Chesterfield County
SWP378	Matyiko Debris	Closed	5/25/1983	Solid Waste Full Permit	Chesterfield County
SWP379	Carr Debris Landfill	Closed	6/27/1983	Solid Waste Full Permit	Powhatan County
SWP430	Lawless Debris Landfill	Inactive - Other	4/12/1984	Solid Waste Full Permit	Chesterfield County
SWP454	Belcher Debris Landfill	Closed	1/9/1985	Solid Waste Full Permit	Chesterfield County
SWP477	Hercules Aqualon Landfill	Closed	7/17/1985	Solid Waste Full Permit	Hopewell City
SWP487	Richmond Transfer Station and Convenience Center	Clean Closed	11/1/1985	Solid Waste Full Permit	Richmond City
SWP489	Richmond City of School Street Transfer Station	Clean Closed	10/30/1985	Solid Waste Full Permit	Richmond City
SWP495	Virginia Recycling Corporation	Closed	6/24/1986	Solid Waste Full Permit	New Kent County
SWP496	Henrico County DPU Springfield Rd Waste Management	Closed	5/28/1986	Solid Waste Full Permit	Henrico County
SWP516	Qualla Road CDD Landfill	Closed	2/1/1988	Solid Waste Full Permit	Chesterfield County
SWP528	819 Virginia LLC	Closed	10/21/1988	Solid Waste Full Permit	Hanover County
SWP530	Leaf Composting Demonstration	Clean Closed	8/25/1989	Solid Waste Full Permit	Chesterfield County
PBR182	Quality Specialties Incorporated	Denied	N	Solid Waste Permit-by-Rule	Hopewell City
SWP497	Kenneth Martin	Denied	4/28/1986	Solid Waste Full Permit	Powhatan County
PBR027	The East End Landfill	Clean Closed	7/15/1993	Solid Waste Permit-by-Rule	Henrico County
SWP476	Shoosmith Sanitary Landfill	Closed	7/15/1985	Solid Waste Full Permit	Chesterfield County
SWP132	Chesterfield County - Bon Air Landfill	Closed	11/13/1973	Solid Waste Full Permit	Chesterfield County
SWP426	North Anna Corporation Fly Ash Landfill	Closed	1/27/1984	Solid Waste Full Permit	Hanover County
SWP449	CAG Partnership RDF Plant	Closed	11/26/1984	Solid Waste Full Permit	Henrico County
SWP453	US Army Garrison and Fort Lee	Closed	12/11/1984	Solid Waste Full Permit	Prince George County
SWP592	Aqua Clean Environmental of Virginia	Closed	3/20/1998	Solid Waste Full Permit	Richmond City

Permit ID	Facility Name	Operating Status	Permit Issued Date	Permit Type	City / County
Emergency Facilities					
EMG046	Charles City County Landfill	Revoked	9/23/2003	Solid Waste Emergency Permit	Charles City County
EMG049	Richmond Transfer Station and Convenience Center	Revoked	9/23/2003	Solid Waste Emergency Permit	Richmond City
EMG052	Iron Bridge Park Emergency Debris Site	Revoked	9/24/2003	Solid Waste Emergency Permit	Chesterfield County
EMG053	Chesterfield County DPR Dodd Park Point of Rocks	Revoked	9/24/2003	Solid Waste Emergency Permit	Chesterfield County
EMG061	VDOT - Pocahontas Area Headquarters	Revoked	9/30/2003	Solid Waste Emergency Permit	Chesterfield County
EMG062	VDOT Beach Area Hq	Revoked	9/30/2003	Solid Waste Emergency Permit	Chesterfield County
EMG063	VDOT - Mongolia Street Lot	Revoked	9/30/2003	Solid Waste Emergency Permit	Richmond City
EMG064	VDOT - Fighting Creek Park	Revoked	10/2/2003	Solid Waste Emergency Permit	Powhatan County
EMG400	VDOT Powhatan Area Hq	Revoked	10/1/2003	Solid Waste Emergency Permit	Powhatan County
EMG401	VDOT Bon Air Area Hq	Revoked	10/1/2003	Solid Waste Emergency Permit	Richmond City
EMG402	VDOT - Rte 60 and Rte 76 Interchange	Revoked	10/1/2003	Solid Waste Emergency Permit	Chesterfield County
EMG403	VDOT - Route 10 and I95 Interchange	Revoked	10/1/2003	Solid Waste Emergency Permit	Chesterfield County
EMG404	VDOT Bethia Area Hq	Revoked	10/1/2003	Solid Waste Emergency Permit	Chesterfield County
EMG405	VDOT Prince George Area Hq	Revoked	10/1/2003	Solid Waste Emergency Permit	Prince George County
EMG406	VDOT - Route 711 Storage Yard	Revoked	10/1/2003	Solid Waste Emergency Permit	Prince George County
EMG409	VDOT - Route 76 and Route 653 Storage Yard	Revoked	10/1/2003	Solid Waste Emergency Permit	Chesterfield County
EMG410	Ashland Town Shop	Revoked	10/9/2003	Solid Waste Emergency Permit	Hanover County
EMG411	5801 Roxbury Road	Revoked	10/10/2003	Solid Waste Emergency Permit	Charles City County
EMG412	Old Church Road Debris Site	Revoked	10/1/2003	Solid Waste Emergency Permit	New Kent County
EMG414	Shoosmith Sanitary Landfill	Revoked	10/17/2003	Solid Waste Emergency Permit	Chesterfield County
EMG415	Halifax Road Debris Site	Revoked	10/20/2003	Solid Waste Emergency Permit	Prince George County
EMG416	Charles City County Munford Road Debris Site	Revoked	10/20/2003	Solid Waste Emergency Permit	Charles City County
EMG417	Gaskins Road Park and Ride	Revoked	9/30/2003	Solid Waste Emergency Permit	Henrico County
EMG418	Henrico County Public Works	Revoked	9/30/2003	Solid Waste Emergency Permit	Henrico County
EMG419	Point Breeze Debris Site	Revoked	10/23/2003	Solid Waste Emergency Permit	Hanover County
EMG421	Stag Road Debris Site	Revoked	10/24/2003	Solid Waste Emergency Permit	New Kent County
EMG422	VDOT - Three Chopt Road Debris Site	Revoked	10/27/2003	Solid Waste Emergency Permit	Goochland County
EMG423	James River Correction Center	Revoked	10/27/2003	Solid Waste Emergency Permit	Goochland County
EMG424	Garland Construction Midlothian Turnpike	Revoked	10/27/2003	Solid Waste Emergency Permit	Chesterfield County
EMG425	Cinter Construction Farmers Rest Farm	Revoked	10/28/2003	Solid Waste Emergency Permit	Charles City County
EMG426	Old Bermuda Road Wood Resources Recovery	Revoked	10/29/2003	Solid Waste Emergency Permit	Chesterfield County
EMG427	River Road Wood Resources Recovery	Revoked	10/29/2003	Solid Waste Emergency Permit	Chesterfield County
EMG428	Cloverleaf Mall Wood Resources Recovery	Revoked	10/29/2003	Solid Waste Emergency Permit	Chesterfield County
EMG429	Otterdale Road Wood Resources Recovery	Revoked	10/29/2003	Solid Waste Emergency Permit	Chesterfield County
EMG431	9210 Courthouse Road	Revoked	11/3/2003	Solid Waste Emergency Permit	New Kent County
EMG433	Mapsico Road Debris Site	Revoked	11/5/2003	Solid Waste Emergency Permit	Charles City County
EMG435	Quaker Road Debris Site	Revoked	11/7/2003	Solid Waste Emergency Permit	Prince George County
EMG442	State Route 604 Debris Site	Revoked	3/25/2004	Solid Waste Emergency Permit	Prince George County
EMG445	Kinder Morgan Southeast Terminal 1	Revoked	4/28/2006	Solid Waste Emergency Permit	Richmond City
PBR577	VCU In-Vessel Composting Facility	Application Withdrawn	N	Solid Waste Permit-by-Rule	Richmond City
PBR593	CEPHAS Industries Material Recovery Facility	Application Withdrawn	N	Solid Waste Permit-by-Rule	Richmond City
Pending Permits					

EMG470	Hanover County Totopotomoy WWTP	Pending	Solid Waste Emergency Permit	Hanover County
PBR637	Sharps Compliance Inc	Pending	Solid Waste Permit-by-Rule	Henrico County

Appendix D1

Amendment 10 – Shoosmith Landfill

Shoosmith Sanitary Landfill is located at 11520 Lewis Road, Chester in Chesterfield County. An expansion of this Landfill into an adjacent quarry was originally approved by the VA DEQ, however, the Article VII/VIII application required by the host community of Chesterfield County was not approved by the Board of Supervisors in July 2018. The outcome of litigation prevents the landfill from expanding into the quarry. Approximately, 33,699,000 cubic yards of capacity has been removed via Amendment 10 to this Plan.

In accordance with the Virginia Waste Regulations and the CVSWMP, any addition, deletion, or cessation of any solid waste disposal facility requires a major amendment to the Plan. A major amendment requires a public hearing and approval by the CVWMA Board of Directors, the Richmond Regional Planning District Commission (PlanRVA) and the Crater Planning District Commission.

A summary of the proposed amendment and request for comment was advertised on the CVWMA website cvwma.com 30 days prior to the public hearing. The public hearing was noticed at cvwma.com and advertised in the Richmond Times Dispatch. The public hearing was held at a regularly scheduled meeting of the CVWMA Board of Directors on May 17, 2024 at 9:00am. The only written comment on this Amendment was received by SCS Engineers on behalf of Shoosmith Bros. Landfill. There were no public comments received at the public hearing, written or oral.

Attached herein:

1. Advertising affidavit for the public notice and RTD legal notice
2. Excerpt from the CVWMA Board of Directors meeting minutes – May 17, 2024
3. Written Comment from SCS Engineers
4. Resolution approving Amendment 10 by CVWMA Board of Directors – May 17, 2024
5. Resolution approving Amendment 10 by the Richmond Regional Planning District Commission (Plan RVA)
6. Resolution approving Amendment 10 by the Crater Planning District Commission.

Richmond Times-Dispatch

AFFIDAVIT OF PUBLICATION

State of New Jersey, County of Hudson, ss:

Nicole Riegert, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Richmond Times Dispatch, a newspaper printed and published in the City of Richmond, State of Virginia, and that this affidavit is Page 1 of 2 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
May. 1, 2024

NOTICE ID: 1XXqP5MbyckhrpAZaeRb
PUBLISHER ID: COL-7001285
NOTICE NAME: Amendment 10 - SWMP
Publication Fee: 353.67
Ad Size: 2 X 28 L
Category: General Legal Notice

Under penalty of perjury, I, the undersigned affiant swear or affirm that the statements above are true and accurate to the best of my knowledge and belief.

Nicole Riegert
(Signed)

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

VERIFICATION

State of New Jersey
County of Hudson

Subscribed in my presence and sworn to before me on this: 05/08/2024

Shannea H Holmes
Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice

Public Input Solicited for Regional Solid Waste Management Plan Amendment

The Central Virginia Waste Management Authority (CVWMA) requests input from all interested parties on an amendment to the regional Solid Waste Management Plan (SWMP). The public will have the opportunity to comment on the proposed amendment to the Plan at 9:00 a.m. May 17, 2024, at the Central Virginia Waste Management Authority (CVWMA) Board of Directors meeting. The meeting will be held in the large conference room at 2104 West Laburnum Avenue, Suite 105, Richmond, VA 23227. The proposed SWMP amendment will remove the remaining permitted airspace capacity from the SWMP for Shoosmith Sanitary Landfill located at 11520 Iron Bridge Road, Chester, VA 23831 (in the County of Chesterfield).

All interested parties are encouraged to review the 2019-2039 Central Virginia Solid Waste Management Plan. Copies available online at https://cvwma.com/about-us/solid-waste-management-plan/ or at the CVWMA office, 2100 West Laburnum Avenue, Suite, 105, Richmond, VA 23227.

Citizens may also submit written comments prior to the public meeting but no later than May 17, 2024, to Mr. Richard Nolan, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to rnolan@cvwma.com. These comments will become part of the permanent record and be considered in the development of the amendment.
COL-7001285

Excerpt from May 17, 2024 CVWMA Board of Directors Meeting Minutes

Item No. 4: Public Hearings – Central Virginia Solid Waste Management Plan (CVSWMP/Plan)

a. **PH2401: Amendment 10: Shoosmith Landfill Consideration of Resolution 24-19: Approval to amend the Plan to remove cells 27 & 28 from permitted capacity-**

Mr. Rich Nolan, CVWMA Director of Operations, reminded the Board of the process of a major amendment to the Central Virginia Solid Waste Management Plan (CVSWMP or Plan). In accordance with the Virginia Solid Waste Planning Regulations, a major amendment is required whenever there is an expansion or cessation of disposal capacity. A major amendment requires a public hearing, approval by the CVWMA Board of Directors and approval by the Richmond Regional and Crater Planning District Commissions and ultimate approval by the Virginia Department of Environmental Quality (DEQ).

Mr. R. Nolan provided some background information on proposed Amendment #10. The Shoosmith Sanitary Landfill is located at 11520 Iron Bridge Rd, Chester, VA 23831 in the County of Chesterfield and is a permitted landfill operating under Solid Waste Facility Permit No 587 that was issued by DEQ.
An expansion of this Landfill into an adjacent quarry (cells 27 and 28) was originally approved by the VA DEQ, however, the Article VII/VIII application required by the host community of Chesterfield County was not approved by the Board of Supervisors in July 2018. The outcome of litigation prevents the landfill from expanding into the quarry. Approximately 33,699,000 cubic yards (approximately 17 million tons) of capacity currently in the plan will be removed by this amendment, if approved by all parties. It should be noted that this amendment only removes the cells related to the quarry and does not include the closure of the Shoosmith Landfill as there is capacity remaining in cells 1-26 that could be available.
Mr. Nolan stated that the purpose of this hearing is to receive input regarding the removal of the quarry capacity from the Plan. Mrs. Hynes announced that each board member was provided a hard copy of the written correspondence dated May 1, 2024, submitted by SCS Engineers on behalf of Shoosmith Landfill. The written response clarifies and confirms that only the quarry capacity should be removed from the Plan as the Landfill is still operating in the other cells that have remaining capacity.

Chairman Dunn opened the floor for public comment. Without any requests to address the Board, he closed the public comment period for **PH2401: Amendment 10; Shoosmith Landfill**.

Chairman Dunn opened the floor for a motion to accept and file **Resolution 24-19: Approval to amend the Plan to remove cells 27 & 28 from permitted capacity** as submitted. A motion was made by Vice-Chairman Jones (M-Richmond) seconded by, Ms. M. Tretina (M-Henrico) and carried that **Resolution 24-19** be approved and filed as submitted.

May 1, 2024
File No. 02198097.01

Ms. Kim Hynes
Executive Director
Central Virginia Waste Management Authority
2100 West Laburnum Avenue, Suite 105
Richmond, Virginia 23227

Subject: Clarification of Remaining Permitted Airspace Capacity and Facility Status
Shoosmith Sanitary Landfill – Chester, Virginia (Solid Waste Permit No. 587)

Dear Kim:

On behalf of Shoosmith Bros., Inc. (SBI), SCS Engineers (SCS) is responding to your email correspondence, titled "Public Hearing Notice – Shoosmith", dated 4/29/24, which serves as a reminder of the upcoming public hearing related to the Shoosmith Sanitary Landfill (Landfill or Facility) being conducted by the Central Virginia Solid Waste Management Authority (CVWMA) that is scheduled for 5/17/24. Your email stated that the purpose of the public hearing is to receive "input on removing the quarry capacity from the regional solid waste management plan." We understand that the announcement of the public hearing is to be published in the newspaper on 5/1/24.

SBI and SCS have reviewed the Public Notice #PH2401: Solid Waste Management Plan Amendment that is currently posted on the CVWMA website and noticed that it contains language that states "The proposed SWMP amendment will remove the remaining permitted airspace capacity from the SWMP for Shoosmith Sanitary Landfill...". Another portion of the Notice of Public Hearings states "Approximately 17 million tons of capacity currently in the plan will be removed by Amendment 10...". SBI and SCS thought it prudent to provide CVWMA with the following clarification on status of the Facility and specific details regarding remaining permitted airspace capacity:

- The Shoosmith Sanitary Landfill (SWP#587) is an active landfill that accepts certain types of waste materials in accordance with the Facility's permit and the Landfill is not closed at this time. The Landfill does not have an anticipated date for closure.

- SBI has sold the portion of the Landfill property that was designated for future development of waste disposal units identified as Cells 27 and 28. Accordingly, SBI is working with the Virginia Department of Environmental Quality (VDEQ) to amend the Facility's Solid Waste Permit to remove Cells 27 and 28, and the design capacity associated with these cells, from the Permit.

- The Landfill does possess remaining permitted airspace capacity associated with other waste disposal units , designated Cells 5 - 11, 15 - 18, and 22 - 26. So, SBI and SCS feel it is critical that CVWMA structure Amendment 10 of the Solid Waste Management Plan (Plan) to recognize that the Landfill has remaining permitted airspace capacity independent of Cells 27 and 28.

15521 Midlothian Turnpike, Suite 305, Midlothian, VA 23113 | 804-378-7440

- The current CVWMA Plan (2019) identifies the Facility's permitted capacity to be 75,800,000 cubic yards (CY), which represents the Gross Airspace Capacity for all permitted waste disposal units, inclusive of Cells 27 and 28. Considering that the Gross Airspace Capacity of Cell 27 is 1,772,000 CY, and the Gross Airspace Capacity of Cell 28 is 31,927,000 CY, the revised permitted capacity cited in Amendment 10 of the Plan should be 42,101,000 CY.

- We believe that the region benefits from fully utilizing the airspace at an existing landfill to the extent possible. The Landfill intends to continue waste placement operations until the remaining airspace capacity in the existing waste disposal units (through Cell 26) is fully consumed.

Thank you for your email correspondence reminding SBI of the notice publication and upcoming public hearing. Please contact SCS or Bruce Coble of SBI if you have any questions or require further information.

Sincerely,

Robert E. Dick, PE, BCEE
Senior Vice President
SCS Engineers

Charles J. Warren, PE
Project Director
SCS Engineers

cc: Rich Nolan, CVWMA
Bruce Coble, SBI
Mike Cole, SBI

RESOLUTION 24-19

A resolution approving Amendment 10 to the Central Virginia Solid Waste Management Plan to remove cells 27 and 28, known as the quarry of the Shoosmith Sanitary Landfill in Chesterfield County and directing the transmittal of the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

WHEREAS in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration, and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of a solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virginia Waste Management Authority is the legal entity responsible for the implementation of the plan; and,

WHEREAS, the current Central Virginia Solid Waste Management Plan horizon covers the 20-year period from 2019 through the year 2039; and,

WHEREAS, the Virginia Department of Environmental Quality approved the Central Virginia Solid Waste Management Plan August 20, 2004 and the most recent update on October 29, 2021; and,

WHEREAS, the Central Virginia Waste Management Authority has prepared a major amendment (Amendment 10) to the Plan in accordance with 9 VAC 20-130-10 et seq. as outlined Agenda Item No. 4.a. of the May 2024 Board Agenda to modify the Plan to reflect the removal of cells 27 and 28, also known as the quarry, of the Shoosmith Sanitary Landfill located at 11800 Lewis Road, Chester, Virginia from the CVSWMP; and,

THEREFORE, BE IT RESOLVED that the Central Virginia Waste Management Authority Board of Directors approves the major amendment to the Central Virginia Solid Waste Management Plan and authorizes the Authority to transmit, upon approval, the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

Adopted this 17th of May 2024

ATTEST: _____
Robert Dunn, Chairman

RESOLUTION OF THE RICHMOND REGIONAL PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENT #10 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

On motion by Jordan Stewart, seconded by Jim Holland, the members of the PlanRVA Commission voted to adopt the following resolution:

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved the Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, and updates on July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021; and

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 10 to the Central Virginia Solid Waste Management Plan at its regular meeting of May 17, 2024, to modify the Plan to reflect the removal of cells 27 and 28, also known as the quarry, of the Shoosmith Sanitary Landfill located at 11800 Lewis Road, Chester, Virginia as this capacity is no longer available to the region; and

NOW, THEREFORE, BE IT RESOLVED that the Richmond Regional Planning District Commission, this 1st day of August 2024, formally approves Amendment 10 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendment to the Virgina Department of Environmental Quality for approval.

****

This is to certify that the Richmond Regional Planning District Commission approved the above resolution at its meeting held August 1, 2024.

WITNESS:

Janice Scott
Janice Scott
Board Relations Manager
PlanRVA

BY:

Martha Shickle
Executive Director
PlanRVA

Monument Professional Building
1964 Wakefield Street
Petersburg, VA 23805

CRATER PLANNING
DISTRICT COMMISSION

Phone: 804.861.1666
Fax: 804.732.8972
craterpdc.org

County of Charles City
County of Chesterfield

City of Colonial Heights
County of Dinwiddie

City of Emporia
County of Greensville
City of Hopewell

City of Petersburg
County of Prince George

County of Surry
County of Sussex

RESOLUTION OF THE CRATER PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENT #10 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved the Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, and updates on July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021; and

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 10 to the Central Virginia Solid Waste Management Plan at its regular meeting of May 17, 2024, to modify the Plan to reflect the removal of cells 27 and 28, also known as the quarry, of the Shoosmith Sanitary Landfill located at 11800 Lewis Road, Chester, Virginia as this capacity is no longer available to the region; and

NOW, THEREFORE, BE IT RESOLVED that the Crater Planning District Commission formally approves Amendment 10 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendment to the Virgina Department of Environmental Quality for approval.

E. Jay Ellington
Executive Director

June 27, 2024
Date

Michelle Johnson
Chair

June 27, 2024
Date

Appendix D2
Amendment 11 – Tri-Cities Landfill

The Tri-Cities Sanitary Landfill is located at 390 Industrial Drive in Petersburg. This Landfill is no longer accepting waste and is in the process of closure. Meridian Waste, the owners of the landfill discontinued accepting waste in late 2018 and the solid waste permit was ultimately revoked by DEQ and the landfill is currently in closure. There was approximately 500,000 tons of capacity remaining at the time of closure, which is removed by Amendment 11 to the Plan.

In accordance with the Virginia Waste Regulations and the CVSWMP, any addition, deletion, or cessation of any solid waste disposal facility requires a major amendment to the Plan. A major amendment requires a public hearing and approval by the CVWMA Board of Directors, the Richmond Regional Planning District Commission (PlanRVA) and the Crater Planning District Commission.

A summary of the proposed amendment and request for comment was advertised on the CVWMA website cvwma.com 30 days prior to the public hearing. The public hearing was noticed at cvwma.com and advertised in the Richmond Times Dispatch. The public hearing was held at a regularly scheduled meeting of the CVWMA Board of Directors on May 17, 2024 at 9:00am. There were no public comments received at the public hearing, written or oral.

Attached herein:

7. Advertising affidavit for the public notice and RTD legal notice
8. Excerpt from the CVWMA Board of Directors meeting minutes – May 17, 2024
9. Resolution approving Amendment 11 by CVWMA Board of Directors – May 17, 2024
10. Resolution approving Amendment 11 by the Richmond Regional Planning District Commission (Plan RVA)
11. Resolution approving Amendment 11 by the Crater Planning District Commission.

Richmond Times-Dispatch

AFFIDAVIT OF PUBLICATION

State of New Jersey, County of Hudson, ss:

Nicole Riegert, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Richmond Times Dispatch, a newspaper printed and published in the City of Richmond, State of Virginia, and that this affidavit is Page 1 of 2 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
May. 1, 2024

NOTICE ID: 6FzGIlk4j7YhzksSg2Tp
PUBLISHER ID: COL-7001288
NOTICE NAME: Amendment 11 - SWMP
Publication Fee: 353.67
Ad Size: 2 X 28 L
Category: General Legal Notice

Under penalty of perjury, I, the undersigned affiant swear or affirm that the statements above are true and accurate to the best of my knowledge and belief.

Nicole Riegert
(Signed)

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

VERIFICATION

State of New Jersey
County of Hudson

Subscribed in my presence and sworn to before me on this: 05/08/2024

Shannea H Holmes

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice

Public Input Solicited for Regional Solid Waste Management Plan Amendment

The Central Virginia Waste Management Authority (CVWMA) requests input from all interested parties on an amendment to the regional Solid Waste Management Plan (SWMP). The public will have the opportunity to comment on the proposed amendment to the Plan at 9:00 a.m. May 17, 2024, at the Central Virginia Waste Management Authority (CVWMA) Board of Directors meeting. The meeting will be held in the large conference room at 2104 West Laburnum Avenue, Suite 105, Richmond, VA 23227. The proposed SWMP amendment will remove the remaining permitted airspace capacity from the SWMP for Tri Cities Regional Landfill located at 333-B Industrial Drive, Petersburg, VA 23803 (in the City of Petersburg).

All interested parties are encouraged to review the 2019-2039 Central Virginia Solid Waste Management Plan. Copies available online at https://cvwma.com/about-us/solid-waste-management-plan/ or at the CVWMA office, 2100 West Laburnum Avenue, Suite, 105, Richmond, VA 23227.

Citizens may also submit written comments prior to the public meeting but no later than May 17, 2024, to Mr. Richard Nolan, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to rnolan@cvwma.com. These comments will become part of the permanent record and be considered in the development of the amendment.
COL-7001288

Excerpt from May 17, 2024 CVWMA Board of Directors Meeting Minutes

Item No. 4: Public Hearings – Central Virginia Solid Waste Management Plan (CVSWMP/Plan)

b. PH2402: Amendment 11: Tri-Cities Landfill Consideration of Resolution 24-20: Approval to amend the Plan to include the closure of the Tri-Cities Landfill

Similarly to the previous Public Hearing, Mr. R. Nolan reported that the CVWMA Board of Directors will hear public comments regarding a proposed Amendment 11 to the CVSWMP.

Mr. Nolan provided background information on proposed Amendment #11. The Tri-Cities Landfill, owned by Meridian Waste and operated in the City of Petersburg, is permitted under Solid Waste Facility Permit No. 228 issued by DEQ. This Landfill is no longer accepting waste and is in the process of closure. Meridian Waste, the owners of the landfill discontinued accepting waste in late 2018 and the solid waste permit was ultimately revoked by DEQ, and the landfill is currently in closure. There was approximately 500,000 tons of capacity remaining at the time of closure. This remaining capacity will be removed by Amendment 11, if approved by the CVWMA Board of Directors and the Richmond Regional and Crater Planning District Commissions.

Chairman Dunn opened the floor for public comment for or against Amendment #11. Without any requests to address the Board, he closed the public comment period for PH2402: Amendment 11; Tri-Cities Landfill.

Chairman Dunn opened the floor for a motion to accept and file Resolution 24-20: Approval to amend the Plan to include the closure of the Tri-Cities Landfill as submitted. A motion was made by Vice-Chairman Jones (M-Richmond) seconded by Mr. T. Flippen (A-Colonial Heights) and carried that Resolution 24-20 be approved and filed as submitted.

RESOLUTION 24-20

A resolution approving Amendment 11 to the Central Virginia Solid Waste Management Plan to include the closure of the Tri-Cities Sanitary Landfill in City of Petersburg and directing the transmittal of the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

WHEREAS in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George and the Town of Ashland, and

WHEREAS Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration, and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of a solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virginia Waste Management Authority is the legal entity responsible for the implementation of the plan; and,

WHEREAS, the current Central Virginia Solid Waste Management Plan horizon covers the 20-year period from 2019 through the year 2039; and,

WHEREAS, the Virginia Department of Environmental Quality approved the Central Virginia Solid Waste Management Plan August 20, 2004 and the most recent update on October 29, 2021; and,

WHEREAS, the Central Virginia Waste Management Authority has prepared a major amendment (Amendment 11) to the Plan in accordance with 9 VAC 20-130-10 et seq. as outlined Agenda Item No. 4.b. of the May 2024 Board Agenda to modify the Plan to reflect the closure of the Tri-Cities Sanitary Landfill located at 390 Industrial Drive, Petersburg VA; and,

THEREFORE, BE IT RESOLVED that the Central Virginia Waste Management Authority Board of Directors approves the major amendment to the Central Virginia Solid Waste Management Plan and authorizes the Authority to transmit, upon approval, the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

Adopted this 17th of May 2024

ATTEST: _____
Robert Dunn, Chairman

RESOLUTION OF THE RICHMOND REGIONAL PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENT #11 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

On motion by Jordan Stewart, seconded by Sean Davis, the members of the PlanRVA Commission voted to adopt the following resolution:

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all component of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved the Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, an update of July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021; and

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 11 to the Central Virginia Solid Waste Management Plan at its regular meeting of May 17, 2024, to modify the Plan to reflect the closure of the Tri-Cities Sanitary Landfill located at 390 Industrial Drive, Petersburg VA; and

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 10 to the Central Virginia Solid Waste Management Plan at its regular meeting of May 17, 2024, to modify the Plan to reflect the removal of cells 27 and 28, also known as the quarry, of the Shoosmith Sanitary Landfill located at 11800 Lewis Road, Chester, Virginia as this capacity is no longer available to the region; and

NOW, THEREFORE, BE IT RESOLVED that the Richmond Regional Planning District Commission, this 1st day of August 2024, formally approves Amendment 11 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendment to the Virgina Department of Environmental Quality for approval.

****

This is to certify that the Richmond Regional Planning District Commission approved the above resolution at its meeting held August 1, 2024.

WITNESS:

Janice Scott

Janice Scott
Board Relations Manager
PlanRVA

BY:

Martha Shickle
Executive Director
PlanRVA

Monument Professional Building
1964 Wakefield Street
Petersburg, VA 23805

CRATER PLANNING
DISTRICT COMMISSION

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City of Colonial Heights
County of Dinwiddie

City of Emporia
County of Greensville
City of Hopewell

City of Petersburg
County of Prince George

County of Surry
County of Sussex

RESOLUTION OF THE CRATER PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENT #11 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all component of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved the Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, an update of July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021; and

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 11 to the Central Virginia Solid Waste Management Plan at its regular meeting of May 17, 2024, to modify the Plan to reflect the closure of the Tri-Cities Sanitary Landfill located at 390 Industrial Drive, Petersburg VA; and

NOW, THEREFORE, BE IT RESOLVED that the Crater Planning District Commission formally approves Amendment 11 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendment to the Virgina Department of Environmental Quality for approval.

E. Jay Ellington
Executive Director

June 27, 2024
Date

Michelle Johnson
Chair

June 27, 2024
Date

Appendix D3

Amendment 12 – The East End Landfill

The East End Landfill (TEEL) is a Construction Demolition and Debris (CDD) landfill located at 1790 Darbytown Rd in eastern Henrico County. TEEL does not have the local zoning approval required by the County to operate, thus without local approval cannot continue to landfill CDD waste and is being forced to close. There was approximately 108,500 tons/cubic yards remaining airspace.

In accordance with the Virginia Waste Regulations and the CVSWMP, any addition, deletion, or cessation of any solid waste disposal facility requires a major amendment to the Plan. A major amendment requires a public hearing and approval by the CVWMA Board of Directors, the Richmond Regional Planning District Commission (PlanRVA) and the Crater Planning District Commission.

A summary of the proposed amendment and request for comment was advertised on the CVWMA website cvwma.com 30 days prior to the public hearing. The public hearing was noticed at cvwma.com and advertised in the Richmond Times Dispatch. The public hearing was held at a regularly scheduled meeting of the CVWMA Board of Directors on May 17, 2024 at 9:00am. There were no public comments received at the public hearing, written or oral.

Attached herein:

12. Advertising affidavit for the public notice and RTD legal notice
13. Excerpt from the CVWMA Board of Directors meeting minutes – May 17, 2024
14. Resolution approving Amendment 11 by CVWMA Board of Directors – May 17, 2024
15. Resolution approving Amendment 11 by the Richmond Regional Planning District Commission (Plan RVA)
16. Resolution approving Amendment 11 by the Crater Planning District Commission.

Richmond Times-Dispatch

AFFIDAVIT OF PUBLICATION

State of New Jersey, County of Hudson, ss:

Nicole Riegert, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Richmond Times Dispatch, a newspaper printed and published in the City of Richmond, State of Virginia, and that this affidavit is Page 1 of 2 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
May. 1, 2024

NOTICE ID: TOzqixtti7E9A2SRPcy3
PUBLISHER ID: COL-7001289
NOTICE NAME: Amendment 12 - SWMP
Publication Fee: 353.67
Ad Size: 2 X 28 L
Category: General Legal Notice

Under penalty of perjury, I, the undersigned affiant swear or affirm that the statements above are true and accurate to the best of my knowledge and belief.

Nicole Riegert
(Signed)

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

VERIFICATION

State of New Jersey
County of Hudson

Subscribed in my presence and sworn to before me on this: 05/08/2024

Shannea H Holmes

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice

Public Input Solicited for Regional Solid Waste Management Plan Amendment

The Central Virginia Waste Management Authority (CVWMA) requests input from all interested parties on an amendment to the regional Solid Waste Management Plan (SWMP). The public will have the opportunity to comment on the proposed amendment to the Plan at 9:00 a.m. May 17, 2024, at the Central Virginia Waste Management Authority (CVWMA) Board of Directors meeting. The meeting will be held in the large conference room at 2104 West Laburnum Avenue, Suite 105, Richmond, VA 23227. The proposed SWMP amendment will remove the remaining permitted airspace capacity from the SWMP for The East End Landfill (TEEL) located at 1820 Darbytown Road, Richmond, Virginia (in the County of Henrico).

All interested parties are encouraged to review the 2019-2039 Central Virginia Solid Waste Management Plan. Copies available online at https://cvwma.com/about-us/solid-waste-management-plan/ or at the CVWMA office, 2100 West Laburnum Avenue, Suite, 105, Richmond, VA 23227.

Citizens may also submit written comments prior to the public meeting but no later than May 17, 2024, to Mr. Richard Nolan, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to rnolan@cvwma.com. These comments will become part of the permanent record and be considered in the development of the amendment.
COL-7001289

Excerpt from May 17, 2024 CVWMA Board of Directors Meeting Minutes

Item No. 4: Public Hearings – Central Virginia Solid Waste Management Plan (CVSWMP/Plan)

c. PH2403: Amendment 12: Eastend Landfill Consideration of Resolution 24-21: Approval to amend the Central Virginia Solid Waste Management Plan (CVSWMP) to include the closure of The Eastend Landfill

Mr. R. Nolan reported that the CVWMA Board of Directors will hear public comment regarding a proposed amendment to the CVSWMP to remove landfill disposal capacity that is no longer available for use by the region.

Mr. R. Nolan provided some background information on the proposed Amendment #12. The East End Landfill, a Construction Demolition and Debris landfill located at 1790 Darbytown Road, Henrico, VA operates under Solid Waste Permit #524. This facility does not have the local zoning approval required by the County of Henrico to operate and will be forced to close. This Amendment will remove approximately 108,500 tons of remaining airspace from the Plan. from this landfill. This will be Amendment 12 to the CVSWMP. No adverse effect is projected to available airspace in the CVWMA region with this closure.

Chairman Dunn opened the floor for public comment on Amendment #12 to the Plan. Without any requests to address the Board, he closed the public comment period for PH2403: Amendment 12; Eastend Landfill.

Chairman Dunn opened the floor for a motion to accept and file Resolution 24-21: Approval to amend the Plan to include the closure of the East End Landfill as submitted. A motion was made by Ms. M. Tretina (M-Henrico) and seconded by Ms. M. Kelley (M-Henrico) and carried that Resolution 24-21 be approved and filed as submitted.

RESOLUTION 24-21

A resolution approving Amendment 12 to the Central Virginia Solid Waste Management Plan to include the closure of The East End Landfill in Henrico County and directing the transmittal of the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

WHEREAS in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George and the Town of Ashland, and

WHEREAS Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration, and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of a solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virginia Waste Management Authority is the legal entity responsible for the implementation of the plan; and,

WHEREAS, the current Central Virginia Solid Waste Management Plan horizon covers the 20-year period from 2019 through the year 2039; and,

WHEREAS, the Virginia Department of Environmental Quality approved the Central Virginia Solid Waste Management Plan August 20, 2004 and the most recent update on October 29, 2021; and,

WHEREAS, the Central Virginia Waste Management Authority has prepared a major amendment (amendment12) to the Plan in accordance with 9 VAC 20-130-10 et seq. as outlined Agenda Item No. X of the May 2024 Board Agenda to modify the Plan to reflect the closure of The East End Landfill located at1820 Darbytown Road, Henrico, Virginia; and,

THEREFORE, BE IT RESOLVED that the Central Virginia Waste Management Authority Board of Directors approves the major amendment to the Central Virginia Solid Waste Management Plan and authorizes the Authority to transmit, upon approval, the Proposed Amendment to the Richmond Regional and Crater Planning District Commissions for review and consideration.

Adopted this 17th of May 2024

ATTEST: **Robert Dunn, Chairman**

RESOLUTION OF THE RICHMOND REGIOAL PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENTS #12 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

On motion by Jordan Stewart, seconded by Jim Holland, the members of the PlanRVA Commission voted to adopt the following resolution:

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all component of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, an update of July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021.

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 12 at its regular meeting of May 17, 2024, to modify the Plan to reflect the closure of The East End Landfill located at 1820 Darbytown Road, Henrico, Virginia; and

NOW, THEREFORE, BE IT RESOLVED that the Richmond Regional Planning District Commission, this 1st day of August 2024, formally approves Amendment 12 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendment to the Virgina Department of Environmental Quality for approval.

****

This is to certify that the Richmond Regional Planning District Commission approved the above resolution at its meeting held August 1, 2024.

WITNESS:

Janice Scott

Janice Scott
Board Relations Manager
PlanRVA

BY:

Martha Shickle
Executive Director
PlanRVA

Monument Professional Building
1964 Wakefield Street
Petersburg, VA 23805

CRATER PLANNING
DISTRICT COMMISSION

Phone: 804.861.1666
Fax: 804.732.8972
craterpdc.org

RESOLUTION OF THE CRATER PLANNING DISTRICT COMMISSION RECOMMENDING ADOPTION OF MAJOR AMENDMENTS #12 TO THE CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virgnia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virgina Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counites of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George and the Town of Ashland, and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all component of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste-to-energy), incineration and landfilling, and

WHEREAS, the Richmond Regional Planning District Commission and the Crater Planning District Commission are designated as the entities responsible for the development and maintenance of the solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virgina Waste Management Authority is the legal entity responsible for the implementation of the plan; and

WHEREAS, the plan horizon covers the 20-year period from 2024 through the year 2044; and

WHEREAS, the Virginia Department of Environment Quality approved Central Virginia Solid Waste Management Plan (Plan) originally on August 20, 2004, an update of July 22, 2009, May 13, 2015 and a most recent update on October 29, 2021.

WHEREAS, the Central Virginia Waste Management Authority Board of Directors has reviewed and approved Amendment 12 at its regular meeting of May 17, 2024, to modify the Plan to reflect the closure of The East End Landfill located at 1820 Darbytown Road, Henrico, Virginia; and

NOW, THEREFORE, BE IT RESOLVED that the Crater Planning District Commission formally approves Amendment 12 to the Central Virginia Solid Waste Management Plan and authorizes the CVWMA to submit the amendments to the Virgina Department of Environmental Quality for approval.

E. Jay Ellington
Executive Director

June 27, 2024
Date

Michelle Johnson
Chair

June 27, 2024
Date

Appendix D4

Proposed Amendment 13 – Ashcake Road Landfill

The Ashcake Road Landfill is located at 10022 Ashcake Road, Ashland VA in Hanover County. Ashcake Road Landfill is a permitted Construction Demolition Debris (CDD) Landfill. This Landfill only accepts CDD waste, which includes lumber, wire, sheetrock, brick, shingles, glass, pipes, concrete, paving materials, non-friable asbestos-containing building materials and metal and plastic construction materials and debris resulting from land clearing operations. This facility does not accept municipal solid waste, hazardous waste or industrial waste.

The Ashcake Road Landfill is expanding within the boundaries of the existing property, which will increase the total permitted capacity from 3,066,510 cubic yards to 6,066,510 cubic yards, adding an estimated 14 years of life, upon approval by the Virginia Department of Environmental Quality.

Pursuant to 9VAC20-130-130 of the Virginia Administrative Code, any addition, deletion, or cessation of any solid waste disposal facility requires a major amendment to the Plan. A major amendment requires a public hearing and approval by the CVWMA Board of Directors, the Richmond Regional Planning District Commission (PlanRVA) and the Crater Planning District Commission.

A summary of the proposed amendment and request for comment was advertised on the CVWMA website cvwma.com prior to the public hearing. The public hearing was noticed at cvwma.com and advertised in the Richmond Times Dispatch. The public hearing was held at a regularly scheduled meeting of the CVWMA Board of Directors on September 19, 2025 at 9:00am in the Hanover County Administration Building, 7516 County Complex Road, Hanover VA 23069. No comments were received in writing or at the public hearing. There were no public comments received in writing or at the public hearing.

Attached herein:

1. Advertising affidavit for the public notice and RTD legal notice
2. CVWMA Board of Directors meeting minutes – September 19, 2025
3. Resolution approving Amendment 13 by CVWMA Board of Directors – September 19, 2025
4. Resolution approving Amendment 13 by the Richmond Regional Planning District Commission (Plan RVA)
5. Resolution approving Amendment 13 by the Crater Planning District Commission.

The Notice of Public Hearing for Amendment 13 held on September 19, 2025, was published in the Richmond Times Dispatch newspaper on August 29, 2025. The Richmond Times Dispatch is circulated in the greater Richmond region, including Hanover County.

Richmond Times-Dispatch

AFFIDAVIT OF PUBLICATION

State of Florida, County of Broward, ss:

Anjana Bhadoriya, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Richmond Times Dispatch, a newspaper printed and published in the City of Richmond, State of Virginia, and that this affidavit is Page 1 of 2 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Aug. 29, 2025

NOTICE ID: YGBxkbQ0KqHOMgzf8jme
PUBLISHER ID: COL-7004973
NOTICE NAME: SWMP Amend 13
Publication Fee: 430.95
Ad Size: 2 X 41 L
Category: General Legal Notice

Under penalty of perjury, I, the undersigned affiant swear or affirm that the statements above are true and accurate to the best of my knowledge and belief.

Anjana Bhadoriya

(Signed)_____

SHERI SMITH
Notary Public - State of Florida
Commission # HH266080
Expires on May 21, 2026

VERIFICATION

State of Florida
County of Broward

Subscribed in my presence and sworn to before me on this: 08/29/2025

S Smith

Notary Public
Notarized remotely online using communication technology via Proof.

CVWMA NOTICE OF PUBLIC HEARING

The Central Virginia Waste Management Authority (CVWMA) will hold a public hearing at 9:00am on September 19, 2025 at the Hanover County Administration Building, 7516 County Complex Road, Hanover VA 23069 to consider the following:

Central Virginia Solid Waste Management Plan (CVSWMP or Plan) Amendment: Pursuant to 9VAC20-130-130 of the Virginia Administrative Code, the CVWMA Board of Directors will consider a major amendment to the Plan to increase capacity for the Ashcake Road Landfill located at 10022 Ashcake Rd, Ashland VA 23005 (Hanover County).

Ashcake Road Landfill is a permitted Construction Demolition Debris (CDD) Landfill. This Landfill only accepts CDD waste, which includes lumber, wire, sheetrock, brick, shingles, glass, pipes, concrete, paving materials, and metal and plastic construction materials and debris resulting from land clearing operations. This facility does not accept municipal solid waste, hazardous waste or industrial waste.

The Ashcake Road Landfill is proposing expanding within the boundaries of the existing property, which will increase the total permitted capacity from 3,066,510 million cubic yards to 6,066,510 million cubic yards, adding an estimated 14 years of life.

The current CVSWMP can be found at https://cvwma.com/about-us/solid-waste-management-plan/. Citizens may also submit written comments prior to the public hearing but no later than September 19, 2025 to Kim Hynes, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to khynes@cvwma.com. These comments will become part of the permanent record and be considered in the development of the amendment.
COL-7004973

NOTE: The notice of Public Hearing in the Richmond Times Dispatch refers to permitted capacity increasing from "…3,066,510 **million** cubic yards to 6,066,510 **million** cubic yards…" The word "million" is redundant and a typographical error. The intent was "…permitted capacity from 3,066,510 cubic yards to 6,066,510 cubic yards…"

In CVWMA's opinion, this typographical error did not or would not have changed the outcome of the public hearing.

Record of Public Hearing (Approved September 19, 2025 CVWMA Board of Directors Meeting Minutes)
https://cvwma.com/wp-content/uploads/2025/10/Signed_091925_Minutes.pdf

CENTRAL VIRGINIA WASTE MANAGEMENT AUTHORITY
BOARD OF DIRECTORS MEETING AGENDA
SEPTEMBER 19, 2025
HANOVER COUNTY ADMINISTRATION BUILDING-BOARD ROOM
7516 COUNTY COMPLEX ROAD
HANOVER, VA 23069

MEMBERS/ALTERNATES PRESENT

Voting
Cary Drane (M-Chesterfield), Chairman
Jordan Stewart (M-New Kent), Vice-Chair
John Mitchell (M-Henrico), Treasurer
Randy Hardman (M-Hanover), Secretary
Elizabeth Hall (M-Richmond), Director
Robert L. Dunn (M-Chesterfield), Past-Chair
Stephen Chidsey (M-Ashland)
John Neal (A-Chesterfield)
Doug Smith (M-Colonial Heights)
Wendy Grady (M-Goochland)
Teresa Arnold (A-Hanover)
J. Bentley Chan (A-Henrico)
Josh Byerly (A-Henrico)
Scott Enos (M-Prince George)
Joshua Mathews-Ailsworth (M-Richmond)
Robert McMillen (M-Richmond)

Non-Voting:
Don Leftwich (A-Goochland)
John Saunders (A-Hanover)
Jon Clary (A-Henrico)

MEMBERS/ALTERNATES NOT PRESENT

Todd Evan (A-Ashland)
Clay Bowles (M-Chesterfield)
Mindy McKinney (A-Chesterfield)
Dawn Rowell (A-Chesterfield)
Jeff Stoneman (M-Hanover)
Marilee Tretina (M-Henrico)
Marcia E. Kelley (M-Henrico)
Monique Robertson (M-Hopewell)
Rodney Hathaway (A-New Kent)
Randall Williams (A-Petersburg)
Bob Powers (M-Powhatan)
Tim Glidewell (A-Powhatan)

Staff:

Kimberly A. Hynes, Executive Director
Terry Eckhout, Financial and Admin Manager
Julie Buchanan, Public Relations Coordinator
Reginald “Reggie” Thompson, Operations Analyst
Stephanie Breaker, Sr. Customer Service Manager
Olivia Beidler, Recycling Coordinator
LaTanya McBride, Administrative Assistant

Visitors:

Robert Hundley P. E., Project Manager ARM Group

Mr. C. Drane, Chairman (M-Chesterfield), welcomed all attendees to the meeting and thanked everyone for their presence. He asked all attendees to stand and recite the Pledge of Allegiance. With a quorum in attendance, he called the meeting to order at 9:02 a.m.

Item No. 1: Public Comment Period

Chairman Drane opened the public comment period and asked if any members of the public who were present and wished to address the Board to come forward. Seeing no one, Chairman Drane closed the public comment period.

Item No. 2: Minutes of the Regular Meeting of June 20, 2025

Chairman Drane opened the floor for a motion to consider the minutes of the June 20, 2025, meeting as submitted. The motion was made by the past chair, Mr. R. Dunn (M-Chesterfield), and seconded by Mr. B. Chan (A-Henrico), and so carried that the minutes of the June 20, 2025, Central Virginia Waste Management Authority (CVWMA) Board of Directors meeting are approved as submitted.

Item No. 3: Resolution 26-01: Awarding a Contract for Battery Collection and Recycling Services

Mrs. K. Hynes, Executive Director, stated that Resolution 26-01 was removed from the agenda and will be brought before the Board at a later date.

Item No. 4: Resolution 26-02: Renewal of the Contracts for Recycling and Solid Waste Consulting Services

Mrs. Hynes introduced **Resolution 26-02**, a request to renew Contracts for Recycling and Solid Waste Consulting Services. She mentioned that CVWMA has contracts with two consulting firms: Gershman Brickner & Bratton Inc. (GBB) and HDR Engineering, Inc. (HDR). Both contracts were awarded last year as one-year contracts, with four one-year extensions. The first term expires on September 30, 2025. This request is to renew the Contracts for one year beginning October 1, 2025, ending September 30, 2026. CVWMA and the member jurisdictions have continued to benefit from the partnership with GBB and HDR, and both firms have demonstrated expertise in solid waste and recycling consultant services. After discussing the renewal proposals with the TAC, they recommend renewing both contracts for another year.

Resolution 26-02 will authorize the Executive Director to extend both contracts for one year. Mrs. Hynes opened the floor for questions, and hearing none, Chairman Drane asked for a motion to approve **Resolution 26-02: Renewal of the Contracts for Recycling and Solid Waste Consulting Services**. A motion was made by the Past Chair, Mr. R. Dunn (M-Chesterfield), and seconded by Mr. S. Chidsey (M-Ashland) and was approved as presented.

Item No. 5: Financial Report for August 2025

Ms. T. Eckhout, Finance and Administration Manager, referred the Board to the August Financial Report. She reported that the monthly activity for August was consistent with anticipated levels of service and budget, with a combined net income of $500,513. She informed the board that the Accounts Receivable schedule is included therein and reflects the details and amounts due. As of today, all accounts are up to date. Continuing, she mentioned the staff is working on finalizing the 2025 Annual Comprehensive Financial Report with the audit firm Brown Edwards.

Chairman Drane requested a motion to approve the August 2025 Financial Report as submitted. A motion was made by Ms. E. Hall, Director (M-Richmond), seconded by the past chair, Mr. R. Dunn (M-Chesterfield), and carried that the Financial Reports for August 2025 were approved and filed as submitted.

Item No. 6: Audit Committee Report

Mr. J. Mitchell, Audit Committee Chair, Treasurer, provided the report on behalf of the Audit Committee, which also includes committee members: Mr. R. Dunn (M-Chesterfield) and Mr. C. Bowles (M-Chesterfield).

Mr. Mitchell reported that the Audit Committee met on Tuesday, August 19th, with key staff and the Authority's audit firm, Brown Edwards, to discuss the results of the annual audit and review the draft financial activities report for the previous year. The auditors issued an unmodified opinion, the strongest rating that can be obtained; they found no material weaknesses in the Authority's internal control structure. Mr. Mitchell noted that the deadline for filing the annual report with the Virginia Auditor of Public Accounts is December 15. During the October board meeting, the staff and a representative from Brown Edwards will

present the final report, along with an overview of the audit. He indicated that no action is required today, as this is just an update from the committee.

Item No. 7: Public Hearing 26-03: Proposed Amendment 13 to the Central Virginia Solid Waste Management Plan

Chairman Drane welcomed Mr. Bob Hundley, Engineering Consultant from the ARM Group LLC, who will be addressing the board on behalf of Ashcake Road Landfill. Mr. Hundley requested that the board consider amending the regional SWMP to include a site expansion and presented a brief overview of the proposed expansion and the relocation plan. The landfill will relocate its operations to the eastern side of the property, covering approximately 30 acres. It will feature berms on the northern side of the site, as well as natural buffers to minimize the environmental impact, and stormwater management facilities. Mr. Hundley explained that Ashcake Road Landfill represents a valuable recycling asset to the region, as well as a continued source of safe and cost-effective disposal of construction debris for this area. Mr. Hundley cautioned that, without the expansion, Ashcake will likely have to close its operations by the end of 2025 due to current capacity constraints. Ashcake is one of three demolition and debris landfills in this area. Consequently, its closure will have a significant impact on the communities and localities it serves.

Mr. Hundley thanked the board for allowing him to present and opened the floor for questions. Hearing none, Chairman Drane thanked him for his presentation.

Technical Advisory Committee Recommendations

Chairman Drane introduced Mr. J. Clary (A-Henrico), Chairman of the Technical Advisory Committee (TAC), who will provide the TAC's review and recommendation. Mr. J. Clary (A-Henrico) reported that the TAC reviewed the geographic and transportation conditions, available capacity, local and regional CDD markets, and cost. The group did not consider land usage, as Hanover County had previously addressed this issue during their planning process. Continuing landfill operations would minimize the impact of material displacement, improve cost efficiency, and avoid the need for new landfill construction and permits, preventing waste from being sent to landfills outside our region. Mr. Clary noted that the Hanover County Board of Supervisors supports the approval of the landfill expansion. The TAC concluded that the expansion would preserve cost-effective, regional disposal capacity. Mr. Clary opened the floor for questions.

Mr. J. Mitchell (M-Henrico), Treasurer, inquired about the number of years of expansion capacity. Mr. Hundley confirmed that the expansion will yield an additional 15 years of capacity.

Chairman Drane opened the public comment period. Without any request to address the board and no comments received in advance of the public hearing, he closed the public hearing **PH 26-03: Proposed Amendment 13; Ashcake Road Landfill**.

Chairman Drane asked if any Board members had any questions or comments, and then opened the floor for a motion to approve **PH2601: Proposed Amendment 13: Ashcake Road Landfill Resolution 26-03.** A motion was made by Mr. J. Mitchell (M-Henrico), Treasurer, and seconded by the past chair, Mr. R. Dunn (M-Chesterfield), and carried unanimously that **Resolution 26-03** Amendment 13 be approved and filed as submitted.

Item No. 8: Operations and Technical Advisory Committee

Mrs. Hynes provided an update on operational activities. She reported that the commodity markets for August 2025 remain steady; cardboard pricing is $75 per ton, mixed paper is $35 per ton, and newsprint is $60 per ton. The market price for steel remains at $180 per ton.

Mrs. Hynes reported on upcoming events. On September 13th, the City of Richmond hosted a Household Hazardous Waste (HHW), E-cycling, and Paper Shredding event. On October 4th, Prince George County will host a Clean Community Day, which will include HHW collection. Additionally, Securis will host a First Saturday Electronic Recycling Event on the same day. On October 18th, CVWMA will host a Recycling and Circularity Fair. An HHW event is scheduled in Hanover County on November 1. On November 8th, Chesterfield County will host a Paper Shredding, E-cycling, and HHW event. November 15th, Goochland County will host a Fall Tire Amnesty and Document Shredding Event, and Hanover County will host an E-cycling event.

Mrs. Hynes reported that the TAC met on September 4 to discuss Amendment 13 of the Solid Waste Plan. The meeting included a presentation from Securis, an electronics recycling vendor. The Sercuris contract term ends on November 30, with an option to extend. The TAC discussed the RFP for battery recycling and contract renewals, which the staff will bring back to the board in October or November for consideration. The next TAC meeting is scheduled for October 2nd. It will feature a presentation by Universal Environmental, a vendor for used oil recycling, who will provide an update on the used oil industry. Mrs. Hynes

invited all those interested in the presentation, even if they're not currently on the TAC, to attend. Mrs. Hynes noted that the July statistics are now printed and available, and they will be posted online.

In conclusion, Mrs. Hynes provided an update on the CVWMA Food Waste Composting Program launch at 30 sites in Chesterfield, Henrico, and Richmond. She announced that Henrico County has converted its two locations to the new program. Chesterfield County is building compost kiosks for its sites, and CVWMA is developing signage for their sites. The City of Richmond has 26 compost sites, and they are in the process of transitioning those sites to the new program in the next four to six weeks. CVWMA is looking forward to jump-starting the program and will share that success with the board, in the hope that all jurisdictions will take advantage of this program. Following the launch, our goal is to expand the program to public facilities, schools, and jails, as there is a growing demand for composting programs in the region.

Item No. 9: Public Information

Mrs. J. Buchanan, Public Relations Coordinator, reported on school education and outreach efforts. She announced that CVWMA received a $1,000 grant from the Middle James Round Table through the DEQ for school recycling bins. The Middle James Round Table is a consortium of federal, state, and local governments, nonprofits, and select businesses that meet periodically to discuss issues concerning the middle of the James River, which stretches from approximately Amherst County to the Richmond fall line. The grant was used to purchase approximately 88 bins, which will be distributed to schools in Hanover, Goochland, and Powhatan. Mrs. Buchanan is currently collaborating with teachers and various school systems to determine the number of bins needed in classrooms to support their recycling programs.

Furthermore, CVWMA assisted in organizing the Middle James Round Table yearly conference in September at the James River Association headquarters in Richmond. Mrs. Buchanan serves as Secretary of the organization. The conference was well-attended and featured notable speakers from the Virginia Association for Environmental Education. Attendees participated in field trips around Chapel Island and the James River (Rockets Landing). The theme of the conference was environmental education.

Mrs. Buchanan announced a new regional school outreach program for sixth graders called the Waste Watchdogs. The program was developed to teach sixth-grade students about waste management and recycling and is based on the sixth-grade science SOL curriculum. The students will conduct a mini-waste audit of the classroom trash, analyze the contents, and make recommendations on how to handle each item. Mrs. Buchanan collaborated with Henrico County Public Schools and Keep Henrico Beautiful to develop the Waste Watchdogs program, and we're excited to make it available to sixth-grade teachers throughout the region.

Chairman Drane inquired if it would be safe for the students to sort their own trash. Mrs. Buchanan explained that the decision has yet to be made on whether the audit will include absolute trash or mock trash/recycling. Mrs. Buchanan mentioned that she has spoken with several teachers who have already conducted classroom waste audits, using actual trash for AP and Environmental Science studies under the supervision of their teachers. The students will definitely wear gloves and protective gear while doing it as well.

Mrs. Buchanan reported on upcoming in-person education and outreach activities for September through November. On September 22, CVWMA will partner with Love to Share Foundation to host a program in Henrico County for middle and high school students. On September 28, CVWMA will participate in the RVA VegFest in Richmond. On November 8, CVWMA will provide educational outreach at the Maggie L. Walker Governor's School STEM Fair in Richmond. On November 12, CVWMA will provide Storytime activities at LaPetite Academy in Henrico. On November 25, CVWMA will participate in the Go Green Pep Rally at Goochland Elementary School. Mrs. Buchanan noted that the upcoming outreach events are listed in the board package.

Item No. 10: Administrative

Mrs. Hynes reminded the board of the upcoming 35th Anniversary events. In honor of CVWMA's 35th Anniversary, CVWMA will host a reception on Thursday, October 16, to celebrate 35 years of achievement and regional collaboration. She reminded the board that the October Board meeting will be held at 2:30 p.m., and the reception will follow from 4:00 to 6:00 p.m. Mrs. Hynes encouraged all board members who have yet to RSVP to do so. CVWMA has secured funding commitments from several sponsors to assist with expenses. On Saturday, October 18th, CVWMA will host a Recycling and Circularity Fair at the Interstate Center office complex. This is a community event featuring paper shredding, E-cycling, TFC, Goodwill, and other participating contractors and vendors. We hope you will join us, bringing your families for a fun-filled experience, featuring family activities, music, food trucks, giveaways, and educational games.

Mrs. Hynes mentioned that on October 16, CVWMA will collaborate with UBQ, Cascade Engineering, Henrico County, and the City of Richmond to announce the first-ever trash carts made from this type of material in the world. UBQ is converting waste into a thermoplastic-like product that is climate-positive and is used in the manufacturing of trash and recycling carts for curbside solid waste programs. Mrs. Hynes encouraged the board to come by and join in recognizing this accomplishment.

Lastly, Mrs. Hynes mentioned that she was asked to serve on the Litter Tax Committee. She reminded the board that during the last session of the General Assembly, a House Joint Bill was approved, which tasked the DEQ with reviewing the litter tax, increasing the litter tax, and allocating the funds from the litter tax.

OLD/NEW BUSINESS

Chairman Drane opened the floor for old or new business. Ms. J. Stewart, Vice Chair (M-New Kent), announced that New Kent County will host a Recycling Day event on October 25, featuring recycling, paper shredding, and used tire collection.

ADJOURNMENT

With no further business to come before the Board, Chairman Drane opened the floor for a motion to adjourn the CVWMA Board of Directors meeting at 9:46 a.m. The motion was made by Past Chair, Mr. R. Dunn (M-Chesterfield), and seconded by Mr. B. Chan (A-Henrico), and carried that the September 19, 2025, Board of Directors' meeting be adjourned.

CERTIFICATE

I, Cary Drane, Chairman of CVWMA, certify that the foregoing minutes are a true and accurate copy of the minutes of the September 19, 2025, regular meeting of the Central Virginia Waste Management Authority (CVWMA) Board of Directors. These minutes were adopted at a CVWMA Board meeting held on October 16, 2025, at 9:00 a.m., given under my hand and seal of the CVWMA on this 16th day of October 2025.



Appendix D

Amendments to the SWMP
D5: Summary of Amendments 1-9

AMENDMENT 9: Henrico Springfield Rd Landfill Closure, Henrico County
Major Amendment to remove the Springfield Rd Landfill, located at 10600 Fords Country Ln, Glen Allen in western Henrico. The landfill reached capacity in November 2014 and this amendment removed the Springfield Rd Landfill from the Plan as no longer available disposal capacity in the region.

CVWMA Approved:	September 18, 2015
Plan RVA Approved:	October 8, 2015
Crater PDC Approved:	October 8, 2015
DEQ Approved:	August 3, 2016

AMENDMENT 8: Ashcake Road CDD Landfill Expansion, Hanover County
Major Amendment to include the expansion of disposal capacity of the Ashcake Road CDD Landfill, located at 10022 Ashcake Rd, Ashland, in Hanover County. This expansion included an additional 955,000 cubic yards of airspace via regrading and a vertical expansion.

CVWMA Approved:	September 18, 2015
Plan RVA Approved:	October 8, 2015

Crater PDC Approved: October 8, 2015
DEQ Approved: August 3, 2016

AMENDMENT 7: The East End Landfill (TEEL) CDD Landfill Expansion, Henrico County – REQUEST DENIED

Major Amendment to include the expansion of disposal capacity of the TEEL Construction, Demolition and Debris Landfill located at 1820 Darbytown Rd, in eastern Henrico County. This expansion request included an additional 21.25 acres within the existing permitted waste management boundary and would have added 10-12 years of life. The expansion did not have local county support to expand, thus the CVWMA Board of Directors voted against the expansion.

CVWMA Denied: January 24, 2014
Plan RVA Approved: N/A
Crater PDC Approved: N/A
DEQ Approved: N/A

AMENDMENT 6: Republic Services 623 CDD Landfill, Goochland County

Major Amendment to include the expansion of disposal capacity of the 623 Construction, Demolition and Debris Landfill located at 1961 Ashland Rd, Rockville in Goochland County. This expansion included an additional 6.6 acres combined existing cells. This expansion also included the construction of a Material Recovery Facility (MRF) / Transfer Station on site.

Plan RVA Approved: April 14, 2011
Crater PDC Approved: April 14, 2011
CVWMA Approved: April 15, 2011
DEQ Approved: May 25, 2011

AMENDMENT 5: Tri-Cities Regional Landfill Expansion, City of Petersburg

Major Amendment to include the expansion of disposal capacity of the Tri-Cities Landfill, owned and operated by Container First Services (now Meridian Waste) located at 390 Industrial Dr, Petersburg. This is a vertical expansion of existing cells utilizing mechanically stabilized earth walls and increased the capacity by 446,643 cubic yards. The amendment also included the construction of a transfer station. This facility is in post closure, thus is no longer available to the region. (Amendment 11)

Plan RVA Approved: March 11, 2010
Crater PDC Approved: February 11, 2010
CVWMA Approved: March 19, 2010
DEQ Approved: May 2010

AMENDMENT 4: Environmental Solutions, Inc. Composting Facility, Chesterfield County

Major Amendment to include the new composting facility located at 13101 North Enon Church Rd in Chester, formerly owned and operated by Brown and Williamson Tobacco. The primary operations of the facility is to generate a compost product from dewatered organic sludge mixed with wood chips. Once the tobacco sludge on the remaining on the existing site was depleted, tobacco sludge would be brought in from other sources. This operation is no longer in business as of this 2024 Plan update.

Plan RVA Approved: December 14, 2006
Crater PDC Approved: January 11, 2007
CVWMA Approved: January 19, 2007
DEQ Approved: March 1, 2007

AMENDMENT 3: Skinquarter land, LLC Construction/Demolition/Debris Landfill, Chesterfield County

Major Amendment to include a new CDD landfill and expand recycling operations of CDD materal at the existing facility. The landfill consists of 55 acres located at 20701 Hull Street Rd in Moseley, southwest Chesterfield County.

Plan RVA Approved: September 14, 2006
Crater PDC Approved: October 12, 2006
CVWMA Approved: October 20, 2006
DEQ Approved: February 22, 2007

AMENDMENT 2: Old Dominion Sanitary LF Expansion, Henrico County

Major Amendment for the expansion of the BFI Old Dominion Landfill, located at 2001 Charles City Rd, in eastern Henrico County. This expansion added 168.42 acres to the property, 134.35 acres permitted for waste disposal.

Plan RVA Approved: February 2, 2006
Crater PDC Approved: March 9, 2006
CVWMA Approved: March 17, 2006
DEQ Approved: June 9, 2006

AMENDMENT 1: Landfill Disposal Capacity Update

Minor Amendment to incorporate permit applications submitted prior to the adoption of the CVSWMP. This amendment updated capacity for three solid waste facilities: Simons Hauling Debris Landfill (currently The East End Landfill), Taylor Road CDD Landfill and Springfield Road Sanitary Landfill. This facility is closed and no longer accepting CDD waste. (Amendment 12)
CVWMA Board of Directors Approval: August 19, 2005

Appendix E

Committees Established to Develop the Plan

Technical Advisory Committee

John Bragg, Charles City County	Mike Bridell, City of Petersburg
Steve Chidsey, Hanover County	John Chupek, City of Richmond
Carolyn Cios, Powhatan County	Elliott Danburg, Powhatan County
Charles Dane, Chesterfield County	Michael Davis, Town of Ashland
Nancy Drumheller, Henrico County	Phillip Elliott, City of Hopewell
John Fountain, City of Hopewell	Andrew Glenn, City of Richmond
Douglas Harvey, Goochland County	Kurt Hildebrand, Powhatan County
Tom Harris, Manchester Board & Paper	Howard Heltman, Chesterfield County
Gilbert Lee, Prince George County	Charles Loving, City of Colonial Heights
Wanda McGee, SP Recycling	Michael McNalley, Fort Lee
Fran Pitaro, Chesterfield County	Billie Raines, City of Richmond
William Riggleman, City of Petersburg	Florence Watt, Hanover Services Board
Steven Yob, Henrico County	

Citizens Advisory Committee

Carol Bollinger, City of Richmond	Wesley Caudill, City of Hopewell
Dani DesRoches, Town of Ashland	Vernon Duncan, Prince George County
Eugenia Ellis, City of Richmond	Wanda Neal, Goochland County
Robert Phelps, City of Petersburg	Karen Props, Henrico County
Henry Ragar, Jr. City of Colonial Heights	Bonnie Ware, Charles City County
Fran Pitaro, Chesterfield County	Carson Tucker, Powhatan County

Ad Hoc SWMP Working Group

John Mitchell	CVWMA Executive Director
Kimberly Hynes	CVWMA Deputy Executive Director
Barry Matthews	CVWMA Program Manager
Bernard Harris	CVWMA Program Manager
Steve Chidsey	Hanover County Solid Waste Manager
Steven Yob	Henrico County Chief of Solid Waste
Charles Dane	Chesterfield County Asst Director of External Services
Howard Heltman	Chesterfield County Solid Waste Manager
Milton Martin	Planner
Victor Liu	Crater PDC Community Development Director
Christine Fix	Richmond Regional PDC Associate Planner
Jackie Stewart	Richmond Regional PDC Director of Planning & Information Systems

Appendix F
CVWMA Board of Directors Resolution of Plan Approval

RESOLUTION 04-16

A resolution adopting the Solid Waste Management Plan (SWMP) for the Central Virginia Solid Waste Planning Area and directing the transmittal of the SWMP to the Richmond Regional Planning District (RRPDC) and the Crater Planning District Commissions (CPDC) for review and consideration.

WHEREAS in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991, and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George and the Town of Ashland, and

WHEREAS Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration, and landfilling, and

WHEREAS, The Virginia Department of Environmental Quality (DEQ) requires the submittal of the SWMP by July 1, 2004. The SWMP has been prepared in accordance with DEQ guidelines and all required information is included as requested by member jurisdictions and

WHEREAS, the Central Virginia Waste Management Authority resolves that the SWMP projects waste management and waste diversion needs of the region for a 20 year planning period and the SWMP should be transmitted to the RRPDC and the CPDC for review and consideration and recommends the formal adoption and submittal to the DEQ on or before July1, 2004.

THEREFORE, BE IT RESOLVED, that this resolution shall be in full force and effect upon its passage.

Adopted this 20th of February 2004

ATTEST: _____

Kenneth L. Chandler
Chair

Appendix F
Richmond Regional Planning Commission Resolution of Plan Approval

Richmond Regional Planning District Commission — Metropolitan Planning Organization

Town of
Ashland
Counties of
Charles City
Chesterfield
Goochland
Hanover
Henrico
New Kent
Powhatan
City of
Richmond
Executive Director
Paul E. Fisher

RESOLUTION OF THE
RICHMOND REGIONAL PLANNING DISTRICT COMMISSION
RECOMMENDING ADOPTION
OF THE
CENTRAL VIRGINIA SOLID WASTE MANAGEMENT PLAN

On motion of Mr. Malvern Butler, seconded by Mr. Michael Holmes, the Richmond Regional Planning District Commission unanimously adopted the following resolution:

WHEREAS, the Richmond Regional Planning District Commission and Crater Planning District Commission are designated as the entities responsible for the development of a solid waste management plan for the central Virginia region; and,

WHEREAS, the Central Virginia Waste Management Authority is the legal entity responsible for the implementation of the plan; and,

WHEREAS, in January 1992, the Richmond Regional Planning District Commission and Crater Planning District Commission prepared the Central Virginia Solid Waste Management Plan (SWMP), as mandated by Virginia law, and

WHEREAS, recent regulations require the adopted plan be revisited, updated to meet new requirements governing solid waste management, and adopted by regional planning authorities, and

WHEREAS, the plan horizon must cover the next 20 years, or through the year 2024, and

WHEREAS, the Virginia Department of Environmental Quality (DEQ) requires updated plans be submitted by July 1, 2004, and

WHEREAS, the plan is used to coordinate solid waste activities among 13 local jurisdictions in central Virginia including the Town of Ashland, the cities of Richmond, Colonial Heights, Petersburg and Hopewell, and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George, and,

2104 West Laburnum Avenue, Suite 101 • Richmond, Virginia 23227 • Telephone: (804) 367-6001 • Fax: (804) 367-4375
www.richmondregional.org

WHEREAS, the Central Virginia Waste Management Authority assembled a technical team of local government staff and staff from the Richmond Regional and Crater Planning District Commissions to prepare the plan in accordance with § 9 VAC 20-130-10 et seq.; and

WHEREAS, Joyce Engineering provided peer review of the plan; and

WHEREAS, a draft plan was completed and made available for public review during the fall and winter of 2003; and

WHEREAS, on January 20, 2004, the Central Virginia Waste Management Authority held a final public comment period on the draft plan and adopted a resolution in support of the plan, and

WHEREAS, the Richmond Regional Planning District Commission has reviewed and considered the Central Virginia Solid Waste Management Plan.

NOW, THEREFORE BE IT RESOLVED, that the Richmond Regional Planning District Commission approves of the revised Central Virginia Solid Waste Management Plan.

****

This is to certify that the above resolution was unanimously adopted by the Richmond Regional Planning District Commission at its meeting held on April 8, 2004.

WITNESS:

Paul E. Fisher
Executive Director

Angela L. LaCombe
Chairman

Appendix F
Crater Planning District Commission Resolution of Plan Approval

CRATER PLANNING DISTRICT COMMISSION

Monument Professional Building • 1964 Wakefield Street • Post Office Box 1808 • Petersburg, Virginia 23805
PHONE: (804) 861-1666 • FAX: 804-732-8972 • E-MAIL: craterpd@cpd.state.va.us • WEBSITE: www.craterpdc.state.va.us
Dennis K. Morris, Executive Director

RESOLUTION TO APPROVE THE SOLID WASTE MANAGEMENT PLAN FOR THE CENTRAL VIRGINIA SOLID WASTE PLANNING AREA

WHEREAS, in accordance with the provisions of Section 10.1-1411 of the Code of Virginia, the Central Virginia Solid Waste Planning Area was designated by the Virginia Department of Waste Management as a planning area on May 31, 1991; and

WHEREAS, the Central Virginia Solid Waste Planning Area is contiguous with and concurrent to the geographic boundaries of the Central Virginia Waste Management Authority (CVWMA) comprised of the following member jurisdictions: Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George and the Town of Ashland; and

WHEREAS, Section 9 VAC 20-130-30 of the Code of Virginia requires that Solid Waste Planning Areas develop comprehensive and integrated solid waste management plans that at a minimum consider and address all components of the following hierarchy: source reduction, reuse, recycling, resource recovery (waste to energy), incineration, and landfilling; and

WHEREAS, the Virginia Department of Environmental Quality (DEQ) requires the submittal of the Solid Waste Management Plan for the Central Virginia Solid Waste Planning Area by July 1, 2004. The Plan has been prepared in accordance with DEQ guidelines and all required information is included as requested by member jurisdictions; and

WHEREAS, the Crater Planning District Commission advertised and sponsored a public hearing on the proposed Solid Waste Management Plan in order to receive public input regarding the plan.

NOW, THEREFORE, BE IT RESOLVED that the Crater Planning District Commission, on this 17th day of March, 2004, hereby approves the Solid Waste Management Plan for the Central Virginia Solid Waste Planning Area for submittal to the Virginia Department of Environmental Quality before July 1, 2004.

3-17-04
Date

SB Humphrey
Chairman

3/17/04
Date

Dennis K Morris
Executive Director

Appendix F
Joyce Engineering Letter of Technical Assistance

JOYCE ENGINEERING, INC.

Waste Industry Experts

Joyce Engineering, Inc
1604 Ownby Lane
Richmond, VA 23220

tel: 804/355-4520
fax: 804/355-4282

www.JoyceEngineering.com

April 29, 2004

RECEIVED
APR 30 2004
CENTRAL VIRGINIA WASTE MANAGEMENT AUTHORITY

Mr. Bernard Harris
Program Manager
Central Virginia Waste Management Authority
2100 West Laburnum Avenue, Suite 105
Richmond, Virginia 23227

RE: CENTRAL VIRGINIA WASTE MANAGEMENT AUTHORITY
SOLID WASTE MANAGEMENT PLAN
JEI PROJECT NO. 659.00 TASK 01 SUBFOLDER 02

Dear Bernie:

As discussed, we are writing this letter indicating our technical acceptance of the final Central Virginia Waste Management Authority Solid Waste Management Plan (SWMP). Based on our review and understanding of the Virginia Solid Waste Planning Regulations, Amendment 1, the final report appears to include the main components required by the regulations. Please call me at (804) 355-4520 if you have any questions or comments.

Sincerely,
JOYCE ENGINEERING, INC.

Rebeccah P. Ward, P.E.
Senior Project Engineer

Appendix G
Press Release Announcing Planning Process

Public Input Solicited for Regional Solid Waste Management Plan

The Central Virginia Waste Management Authority (CVWMA) is taking this opportunity to notify all interested parties about this project so that we may benefit from your input as we prepare the Plan. This is your opportunity to present preliminary information to CVWMA. Any and all contributions at this time will greatly assist in making sure that the document is complete, well planned and incorporates the public's opinions.

In the early 1990's, the CVWMA prepared a Solid Waste Management Plan (SWMP), which has been utilized to coordinate solid waste activities among its 13 local jurisdictions for the past eleven years. The Virginia Department of Environmental Quality (VDEQ) has requested all SWMPs in the Commonwealth of Virginia be prepared consistent with the new regulations governing Solid Waste Management. The central Virginia region must provide a plan for solid waste management for the next 20 years, or through the year 2024.

The new Plan is to be submitted to the VDEQ by July 1, 2004. CVWMA has assembled a team to prepare the submission of this Plan. A draft Plan is expected to be completed and available by December 1, 2003. This will allow for public review and a public hearing during the first half of 2004.

To help us with the process of updating this plan, we encourage you to:

- Review the January 1992, Central Virginia Solid Waste Management Plan. Copies are available at the CVWMA office, 2100 West Laburnum Avenue, Suite, 105, Richmond, VA; at the Richmond Regional Planning District Commission office, 2104 West Laburnum Avenue, Suite 101, Richmond, VA; and at the Crater Planning District Commission Office, 1964 Wakefield Avenue, Petersburg, VA. More information about the CVWMA is available at: www.cvwma.com.

- Review the Department of Environment Quality's Waste Management website at www.deq.state.va.us/waste/planning.html, for more information about the solid waste management planning regulations.

- Make comments concerning the Solid Waste Management Plan by telephoning Bernard Harris, at (804) 359-8413, extension 21; or in writing by sending a letter to: Mr. Bernard Harris, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to: bharris@cvwma.com.

- Send comments no later than September 19, 2003. A public meeting regarding the Solid Waste Management Plan will be held on October 17, 2003 at 9:00 a.m. in the Richmond Regional Planning District Commission Conference Room at 2104 W. Laburnum Ave., Suite 101, Richmond, VA. 23227.

The CVWMA is a public service authority that assists local governments in coordinating recycling and waste management programs for thirteen local governments. Member jurisdictions include the Cities of Colonial Heights, Hopewell, Petersburg, and Richmond, the Town of Ashland, and the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George.

Appendix G
Waste Practices Survey to Localities 2003

WASTE PRACTICES SURVEY FOR SOLID WASTE MANAGEMENT PLAN

1. Are there programmatic or operational issues with solid waste management activities in your locality that merit attention? If so, please describe. What, if any, products/waste streams would you handle differently? What additional products/waste streams do you anticipate a future need to find ways to collect, store, transport, transport and/or dispose of?

2. Please describe any changes you anticipate to your current methods of collection and disposal of municipal solid waste. Do you anticipate any significant changes in volume? Do you anticipate changes in your collections done by public or private personnel and if so how? Do you anticipate changes to your disposal by public or private landfill and if so how?

3. Do you have sufficient capacity? Do you anticipate any additional solid waste management facilities – collection stations, public landfills, private landfills, transfer stations, recycling facilities, etc – in your jurisdiction?

4. What expansion do you anticipate to existing solid waste management and recycling programs?

5. Are there additional technologies or programs not currently in operation or available in your locality to be explored?

6. Are there additional issues or comments specific to your jurisdiction that you feel the CVWMA should consider in the development of the SWMP?

Person Completing this Survey: Name_____ Date_____

Title _____

Locality_____

Appendix G
Newspaper Ad Soliciting Public Input

Public Input Solicited for Regional Solid Waste Management Plan

The Central Virginia Waste Management Authority (CVWMA) is requesting that all interested parties provide input to the development of the regional Solid Waste Management Plan (SWMP), October 17, 2003 at 9:00 a.m. in the Richmond Regional Planning District Commission Conference Room at 2104 W. Laburnum Ave., Suite 101, Richmond, VA. 23227. The SWMP will define the integrated waste management objectives, strategies and implementation processes for the region over the next 20 years.

Prior to providing comments, citizens are encouraged to review the January 1992 Central Virginia Solid Waste Management Plan. Copies are available at the CVWMA office, 2104 West Laburnum Avenue, Suite, 105, Richmond, VA; at the Richmond Regional Planning District Commission office, 2104 West Laburnum Avenue, Suite 101, Richmond, VA; and at the Crater Planning District Commission Office, 1964 Wakefield Avenue, Petersburg, VA.

Citizens are also encouraged to submit comments in writing to Mr. Bernard Harris, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227; or by e-mail to bharris@cvwma.com. These comments will become part of the permanent record and be considered in the development of the plan.

Ad placed in *Richmond Times Dispatch* October 10 and October 12

Appendix G
Letter to CAC Requesting Input

October 31, 2003

«Sal» «First» «Last»
«Addres»
«County» «Zip»

Dear «Sal» «Last»;

Enclosed is the presentation made at the October 17 Central Virginia Waste Management Authority (CVWMA) Board meeting on the process for generating the Solid Waste Management Plan (SWMP). This presentation provided an opportunity for the public to make comments on solid waste management in the CVWMA service area.

CVWMA staff and members of the Technical Advisory Committee (TAC) have been working on the SWMP for several months. An initial draft plan will be made available to interested parties by December 1, 2003. This allows time for adequate formal public hearing and review prior to the July 1, 2004, submittal deadline set by the Department of Environmental Quality.

By making everyone aware of the development of the plan, we have the benefit of citizens' comments and concerns as we go through this process. Having comments at this time will afford a greater opportunity for relevant issues to be identified and considered. It is important to the process that any particular concerns that citizens may have be addressed as part of the SWMP development process.

Please take a few minutes to review the presentation. Contact me in writing (2100 West Laburnum Ave., Suite 105; Richmond, VA. 23227), by phone (804.359.8413) or by e-mail (bharris@cvwma.com) to offer any comments or suggestions that you may have. Your input is critical to the development of a successful solid waste management plan that meets the needs of the CVWMA area.

Thank you for your attention to this.

Sincerely,

Bernard B. Harris
Program Manager

Enclosure
cc: John Mitchell, Executive Director

Appendix G
Request to Localities for Input on Current Systems

August 27, 2003

Dear:

The Central Virginia Waste Management Authority (CVWMA) is in the process of developing the Solid Waste Management Plan (SWMP) for the region as required by **9VAC 20-130-10 et seq.** This will be a very important document that will provide guidance for Solid Waste Management in the CVWMA region for the next twenty (20) years. The Department of Environmental Quality (DEQ) has stated that Solid Waste Facilities will not be permitted in the future unless they are included in the SWMP.

The CVWMA needs your assistance to help gather the information on current SWM systems and programs currently in place in your jurisdiction. This would include but not be limited to the following:

- Collection Services
  - MSW
    - Describe Options Available (Public/Private Collector-Public Contract/Private Collector/Green Box Transfer Station/Leaf & Bulky Collections…)
      - Residential (HHs Served)
      - Industry
      - Business
- Landfill & Transfer Stations being used
  - Fees
  - Recycling Programs/Materials
  - Use data (tonnages, traffic count…)
- Examples of privately sponsored recycling/Waste Reduction/Reuse Programs (such as Ukrops accepting paper bags and reusing and encouraging people to utilize reusable cloth bags)
  - Who
  - Materials involved

If you have questions or require any please feel free to call John Mitchell or me.

I have included copies of equivalent sections of the 1992 SWMP and of Loudoun County's 2004 SWMP to help provide some insight and direction.

Please try to have this information back to me by October 1.

Thanks;

Bernard B. Harris
Program Manager

Appendix G
Request to Localities for Citizen Comments on Solid Waste Management

October 17, 2003

Re: Citizen Comments about Solid Waste Management

Dear TAC Member:

One requirement of the process to update the Solid Waste Management Plan is to seek citizen participation, so that the thoughts and concerns of the public may be reflected in the planning process. While specific efforts are being made at this time to solicit input, any comments or concerns voiced over the life of the current plan would be valuable.

To assist with the compilation of citizen comments about solid waste management, it would be appreciated if you and your staff would submit a brief report to the CVWMA, attention Bernie Harris, relating to any citizen concerns or comments about solid waste management that you may have on file. If you have written communications from citizens in your files, copies would be beneficial.

If you or your staff have a recollection of concerns or issues identified by citizens but lack written backup, a brief note outlining the concern or issue would be helpful.

In either case, please convey any material or information relayed to you by citizens in your locality, so that they may be evaluated and considered during the preparation of the new Solid Waste Management Plan. If a response is not received from your locality by November 14, 2003 it will be assumed that there is no record or recollection of citizen expressed solid waste management concerns or issues in your locality.

Sincerely;

Bernard B. Harris
CVWMA Program Manager

Appendix G
Newspaper Ads for Public Hearing

Notice of Public Meeting and Public Comment

The Central Virginia Waste Management Authority (CVWMA) seeks written and oral comments from interested parties on the Regional Solid Waste Management Plan (SWMP). A Public Hearing for the Plan will be held February 20, 2004 at 9:00 a.m. in the Richmond Regional Planning District Commission Conference Room at 2104 W. Laburnum Ave., Suite 101, Richmond, VA. 23227. The SWMP, developed as required by Amendment 1, 9VAC 20-130-10 et seq., defines the integrated waste management objectives, strategies and implementation processes for the region over the next 20 years.

Prior to providing comments, citizens are encouraged to review a draft copy of the Central Virginia Solid Waste Management Plan. Copies are available at the CVWMA office, 2104 West Laburnum Avenue, Suite, 105, Richmond, VA; at the Richmond Regional Planning District Commission office, 2100 West Laburnum Avenue, Suite 101, Richmond, VA; and at the Crater Planning District Commission Office, 1964 Wakefield Street, Petersburg, VA.

Questions or information requests should be addressed to Mr. Bernard Harris, CVWMA, 2100 W. Laburnum Ave, Suite 105, Richmond, Virginia 23227, telephone (804) 359-8413 X21, or e-mail to bharris@cvwma.com.

Ad placed in *Richmond Times Dispatch* February 13 and February 15, 2004

Notice of RRPDC Public Hearing

The Richmond Regional Planning District Commission (RRPDC) seeks written and oral comments on the Central Virginia Solid Waste Management Plan (SWMP). A Public Hearing for the SWMP will be held March 22, 2004 from 4:00 p.m. to 6:00 p.m. at the RRPDC, 2104 W. Laburnum Ave., Suite 101, Richmond, 804-367-6001. The SWMP, required by Amendment 1, 9VAC 20-130-10 et seq., defines waste management objectives, strategies and implementation processes for the region over the next 20 years. Localities within the RRPDC covered by this plan are the Town of Ashland, the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent and Powhatan and the City of Richmond. Prior to providing comments, citizens are encouraged to review a draft copy of the plan. Copies are available at the RRPDC office and on the web at www.richmondregional.org.

Ad placed in *Richmond Times Dispatch* March 7 and March 14, 2004

Appendix G
Input Request to CAC for Public Hearing

February 13, 2004

«Sal» «First» «Last»
«Addres»
«County», «Zip»

Dear «Sal» «Last»,

The Central Virginia Waste Management Authority (CVWMA) is seeking input from citizens on the draft *Central Virginia Solid Waste Management Plan, 2004 - 2024*. As a member of the CVWMA Citizen Advisory Committee, we would like to invite you to participate in a public input session at our next Board of Directors meeting on February 20, 2004. This meeting will be held at 9:00 am in the conference room of the Richmond Regional Planning District Commission (PDC) at 2104 W Laburnum Ave, Suite 101.

This solid waste management plan has been developed by the staff of CVWMA, the Richmond Regional PDC, the Crater PDC and member localities. Citizens and interested groups are encouraged to review the draft plan before the final plan is submitted to the Virginia Department of Environmental Quality by June 30, 2004.

This will not be a question-and-answer session. Depending on the number of citizens interested in speaking, verbal comments may be limited and interested parties are encouraged to submit comments in writing to CVWMA.

Citizen contributions at this time will greatly assist in making sure that the document is complete, well planned and incorporates the public's opinions. We appreciate your input.

Sincerely,

John H. Mitchell
Executive Director

Appendix G
Public Hearing Comments

October 17, 2003 Citizen Participation – Public Input Session

An opportunity to provide input on issues to be considered during the preparation of the Solid Waste Management Plan (SWMP) was provided at the October 17, 2003 CVWMA Board of Directors Meeting. Notice of the opportunity was placed in the October 10 and October 12 Richmond Times Dispatch. Letters of invitation were sent to the CVWMA Citizen Advisory Committee. A press release announcing the event was distributed August 6 to area media as well as to area recycling and solid waste businesses.

Mr. Milton Martin gave a presentation at the October 17 Board Meeting briefly outlining the history of the regional SWMP, the process behind the new plan, a planning schedule and items to be included in the new plan.

A call was made during the board meeting for comments about concerns and issues to be considered in development of the plan.

No comments were received and no one attended the meeting to express their views on the plan.

February 20,2004 CVWMA SWMP Public Hearing

An opportunity to provide input on the Solid Waste Management Plan (SWMP) was provided at the February 20, 2004 CVWMA Board of Directors Meeting. Notice of the opportunity was placed in the February 13 and February 15 *Richmond Times Dispatch*.

No comments were received and no one attended the meeting to express their views on the plan.

The CVWMA Board of Directors approved Resolution 04-16 adopting and transmitting the Plan to the PDCs.

March 17, 2004 Crater PDC SWMP Public Hearing

An opportunity to provide input on the Solid Waste Management Plan (SWMP) was provided at the March 17, 2004 Crater PDC Meeting. Notice of the opportunity was placed in the *Hopewell News* and the *Progress Index*.

No comments were received and no one attended the meeting to express their views on the plan.

The Crater PDC approved a Resolution adopting the Plan.

March 22, 2004 RRPDC SWMP Public Hearing

An opportunity to provide input on the Solid Waste Management Plan (SWMP) was provided at a March 22, 2004 Richmond Regional PDC Public Hearing Meeting. Notice of the opportunity was placed in the *Richmond Times Dispatch* March 7, 2004 and March 14, 2004.

No comments were received and no one attended the meeting to express their views on the plan.