

# **Central Virginia**

# **Solid Waste Management Plan**

2004 (Revised/Updated 2009)

# 1. INTRODUCTION

The geographic area served by the Central Virginia Waste Management Authority (CVWMA)<sup>1</sup> produces over 2,200 tons of municipal solid waste per day. By the year 2024, the level of waste generated is anticipated to increase to over 2,800 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.

Prior to the establishment of the Central Virginia Waste Management Authority, local governments relied on their own resources and capabilities to meet this challenge. However, rising solid waste collection and disposal costs, complications in siting waste disposal facilities, and increasingly more stringent (i.e., costly) federal/state environmental laws and regulations provided incentives for local governments to address solid waste management needs on a multi-jurisdictional basis.

Efforts in this area spearheaded by the Crater and Richmond Regional Planning District Commissions (PDCs), examined resource recovery and recycling programs. These efforts resulted in the successful establishment of the Central Virginia Waste Management Authority by 13 area local governments in December 1990.

The promulgation of mandated solid waste management planning and recycling goals for local governments by the Commonwealth of Virginia in 1990 provided an opportunity for local member governments to meet these mandates through a regional planning approach under the auspices of the CVWMA, in cooperation with the two respective planning district commissions. Each local governing body passed a resolution in 1990 requesting that the Crater and Richmond Regional PDCs prepare a regional solid waste management plan for the CVWMA and its 13 member localities to meet the mandated requirements of VR 672-50-01 ("Regulations for the Development of Solid Waste Management Plans," dated May 15, 1990).

Solid waste management and recycling programs within the Region have developed and operated under the auspices of the Solid Waste Management Plan prepared in 1991.

## 1.1 PURPOSE

The Central Virginia Solid Waste Management Plan (CVSWMP) was prepared for the CVWMA and 13 local governments within the Authority's service area in accordance with the requirements and provisions of Regulations for Solid Waste Management Planning (9 VAC 20-130-10 et seq., Amendment 1).

In meeting this objective, the Central Virginia Solid Waste Management Plan is intended to achieve the following purposes for the CVWMA and its member governments:

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<sup>1</sup> See Appendix H for a complete listing of acronyms and abbreviations used throughout this document

- Define specific solid waste management objectives for the CVWMA service area that meet identified management needs and public policy objectives, including State mandated recycling goals;
- Provide an integrated management strategy with supporting financial and implementation strategies to meet solid waste management objectives;
- Provide agreement on specific roles and responsibilities for the CVWMA and its member governments in the implementation of waste programs and services for meeting the region's waste management needs; and,
- Establish specific milestones, responsibilities, and a schedule for meeting solid waste management objectives.

## 1.2 SCOPE

The Central Virginia Solid Waste Management Plan focuses on all elements of solid waste management in the CVWMA service area, including generation, collection, transportation, treatment, storage, and disposal. A working definition of solid waste, as defined in 9 VAC 20-130-10 Regulations for Solid Waste Management Planning, Amendment 1:

"means any garbage, refuse, sludge and other discarded material, including solid, liquid, semisolid or contained gaseous material, resulting from industrial, commercial, mining and agricultural operations, or community activities but does not include (i) solid or dissolved material in domestic sewage, (ii) solid or dissolved material in irrigation return flows or in industrial discharges that are sources subject to a permit from the State Water Control Board, or (iii) source, special nuclear, or byproduct material as defined by Federal Atomic Energy Act of 1954, as amended."

For a more technical definition of solid waste see 9 VAC 20-80-140. Except for a brief section in this document, the Plan does not address infectious medical wastes or those items excluded as solid waste in the state regulations, such as: solid or dissolved material in domestic sewage, industrial discharges, and irrigation returns; hazardous wastes as defined in the Virginia Hazardous Waste Management Regulations; and radioactive materials, by-products, and wastes.

Although, the Plan does address both public and private solid waste management issues and encourages public and private sector partnerships and participation in its implementation, 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 Central Virginia Waste Management Authority, planning district commissions, local governments, and other participating public agencies for plan maintenance and implementation.

The geographic scope of the Central Virginia Solid Waste Management Plan is the service area of the CVWMA. It covers an area of 2,441 square miles with a 2000 population of approximately 971,979. This service area (shown in Map 1) includes the following 13 jurisdictions within two planning districts:

- Richmond Regional Planning District (also referred to as Richmond Planning Subarea and PDC 15 in this Plan)
  - Charles City County
  - Chesterfield County
  - Goochland County
  - Hanover County
  - Henrico County
  - New Kent County
  - Powhatan County
  - Town of Ashland
  - City of Richmond
  
- Crater Planning District (also referred to as Crater Planning Subarea and PDC 19 in this Plan)
  - Charles City County (in both PDCs)
  - Chesterfield County (in both PDCs)
  - Prince George County
  - City of Colonial Heights
  - City of Hopewell
  - City of Petersburg

### **1.3 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 subsections.

#### **1.3.1 History of the Central Virginia Waste Management Authority**

The Central Virginia Waste Management Authority was formed in December 1990 in response to a 1989 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. 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 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) provided for representation from each of the 13 member jurisdictions on the basis of population. Member jurisdictions with a population

up to 50,000 are represented by one voting member, 50,001 to 100,000 are represented by two voting members and 100,001 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 recycling and waste management programs in concert with and at the request of its member jurisdictions. A menu of services is available to meet the needs of a diverse geographical region. 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 CVWMA has developed customized recycling and solid waste programs that provide either exclusive or complementary support to local initiatives throughout the CVWMA service area. All CVWMA programs are provided through a competitive procurement process with private contractors. Procurements are in compliance with the Virginia Public Procurement Act. Programs are developed that benefit rural and urban communities and are designed to fill the need and in some cases provide exclusive waste management services for member jurisdictions.

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 Central Virginia Solid Waste Management Plan are described in the following sections.

The CVWMA staff, CVWMA Technical Advisory Committee (TAC), the staff of the two PDCs and environmental consultants provided technical input in development of the Plan. The TAC consists 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 A.)

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 Mr. Milton Martin, 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 A).

### **1.3.2 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 Central Virginia Solid Waste Management 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.

### **1.3.3 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 A.)

The CAC was solicited for input on the 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.

## **1.4 PLAN DEVELOPMENT AND ADOPTION PROCESS**

As noted in the preceding section, the CVWMA staff developed the Central Virginia Solid Waste Management Plan. Throughout the planning process, advice was obtained from 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 Solid Waste Management Plan. The firm of Joyce Engineering, Inc. provided technical assistance and engineering review.

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 during the second quarter of CY 2004. Copies of the resolutions of plan approval are included in Appendix G. The final Plan was submitted by the CVWMA to the Department of Environmental Quality on June 30, 2004. As required by the regulations, the CVWMA conducted public hearings on the final draft Central Virginia Solid Waste Management Plan at the February 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 F.

## **1.5 CITIZEN'S PARTICIPATION IN DEVELOPING THE SOLID WASTE MANAGEMENT PLAN**

Work to generate the Solid Waste Management Plan (SWMP) for the Central Virginia Waste Management Authority began in earnest in July 2003. A first step was to organize a nine member working committee, composed of three members of the Central Virginia Waste Management Authority staff, one representative from both the Richmond Regional and Crater Planning District Commissions (PDCs), three representatives of the CVWMA Technical Advisory Committee, 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 member CVWMA Board of Directors and the 26 member Technical Advisory Committee.

Outreach efforts for citizen participation began in August 2003. The first step was to prepare and publish a Press Release (see Appendix I) on the project. The Press Release included the schedule of the project, and announced opportunities for citizen's input during the planning process. The press release was sent to most major local media, as well as Solid Waste Management 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 prepared a PowerPoint presentation, which outlined the Solid Waste Management Plan project. It was presented to the CVWMA Board of Directors at the October 17, 2003 Board Meeting.

Following this presentation, the same material was sent to all members of the CVWMA eleven (11) member Citizen Advisory Committee, soliciting their input at this point in the development of the Plan.

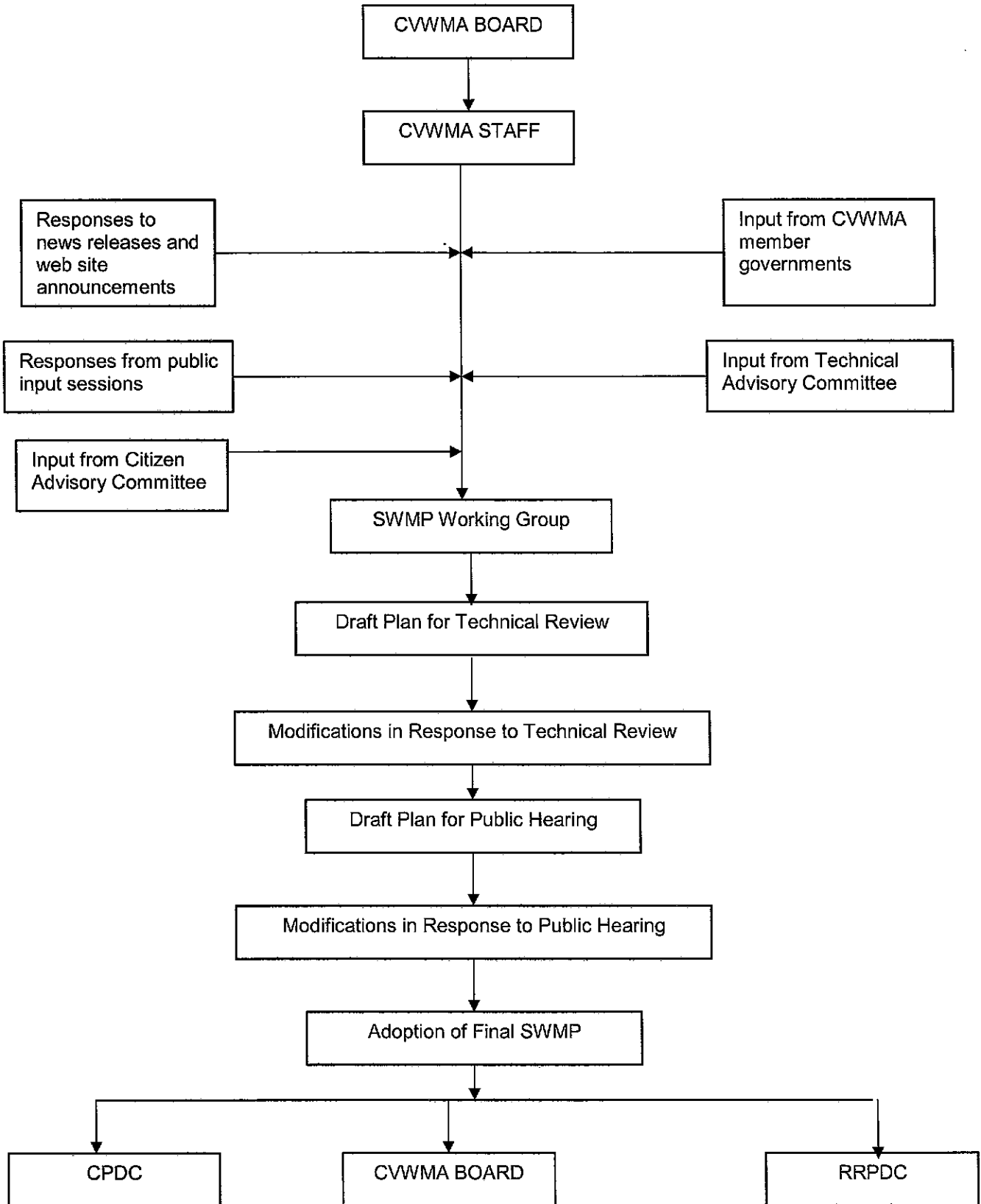
A separate communication was sent to all CVWMA members, asking for any citizen comments that they may have in their files or may have received in the past.

Once the initial draft plan for review was prepared, citizen participation efforts continued. The availability of the draft plan was announced by a press release published by CVWMA. All comments received were considered as the initial draft was put into form for the formal public hearing process.

Formal public hearings in compliance with state requirements were held prior to action by approving bodies. A public hearing was held at the February CVWMA Board of Directors Meeting.

Chart 1 illustrates the adoption process for the Central Virginia Solid Waste Management Plan.

**Chart 1  
PROCESS FOR DEVELOPMENT OF SOLID WASTE MANAGEMENT PLAN**



## **1.6 PLAN CONTENTS**

This document is the Central Virginia Solid Waste Management Plan. The Table of Contents provided at the beginning of the document outlines each chapter and also lists the appendices, charts, maps and tables found in the Plan document.

Chapters 1 through 5 of the Plan provide an introduction, the Plan's policy framework, descriptions of the service area, the legal framework for implementation, the existing (2003) public solid waste management system and recycling programs operating in the CVWMA service area, background and projections of waste generation and composition and the regional recycling rate for 2002.

Chapter 6 describes the service area's solid waste management needs and the waste management options evaluated and selected for recommendation. Chapter 7 outlines the recommended (preferred) regional municipal solid waste (MSW) management and recycling system, which is based on the selected management options.

Chapter 8 discusses implementation issues and milestones, and outlines the plan amendment process for both major and minor amendments.