

CHAPTER 7.0 IMPLEMENTATION OF THE SOLID WASTE MANAGEMENT PLAN

7.0 IMPLEMENTATION STRATEGY

The following implementation strategy outlines the actions needed to implement the Goals listed in Chapter 1 and the Objectives outlined in Chapter 6. The implementation strategy discusses the current system elements that will continue, the plan's new initiatives, the responsible party or parties, the milestones or deadlines for accomplishing the objectives, the expected benefits and outcomes, and the anticipated sources of funding. This solid waste management plan (SWMP) has been designed to respond to the District's 20-year solid waste management needs by being proactive, flexible, and responsive.

This chapter reiterates the Objectives found in Chapter 6 (identified by a Goal number and an Objective letter) and then lists the related supporting implementation strategies.

7.1 GOAL 1

7.1.1 Objective A: Identify and project for the planning period the volume and types of waste generated in Loudoun County.

This information is presented in Chapter 2 of this document.

7.1.2 Objective B: Identify the solid waste management system components that will handle all non-hazardous solid waste generated in Loudoun County.

This information is presented in Chapter 3 of this document.

7.1.3 Objective C: Maintain a comprehensive, integrated solid waste management approach that addresses collection, transportation, and disposal. The approach will address the Solid Waste Hierarchy elements of source reduction, reuse, recycling, resource recovery, incineration, and landfilling, in proportions appropriate for the County's needs.

A discussion of the waste hierarchy is presented in Chapter 4 of this document. The Loudoun County Solid Waste Management Planning District (LCSWMPD) members rely on landfill disposal as their primary solid waste management option and recycling as the secondary option.

Reuse and source reduction will be promoted through various public outreach and educational programs as an integral component of the overall solid waste management system. Some reuse and reduction efforts are in effect in the District. Reuse of vegetative waste (VW) and waste concrete are the most notable examples of reuse. The District members will seek opportunities with, and help from, the private sector in promoting source reduction.

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Incineration and waste-to-energy (WTE) are not cost-effective for the District. Resource recovery alternatives have historically been explored with neighboring jurisdictions; however, no economically viable resource recovery options are available for the District to pursue at this time.

7.1.4 Objective D: Establish a single point of contact for provision and management of technical solid waste information in the District to support future planning decisions and comply with State reporting requirements.

The County's Office of Solid Waste Management (OSWM) will act as the District's agent for collecting, maintaining, compiling, analyzing and reporting basic solid waste management information. OSWM will receive information from District members and from solid waste facilities and collectors permitted by the County. OSWM also will provide information as requested by District members and the public.

OSWM will collect all available information on solid waste generation, recycling, and disposal and will prepare a written annual solid waste report summarizing all information. The report will be completed by March 1 of each year for the preceding calendar year and will be distributed to all District members.

OSWM will prepare and submit the annual solid waste and recycling reports according to requirements in the Virginia Solid Waste Management Act and the Virginia Solid Waste Management Regulations 9 VAC 20-130-165 and 9 VAC 20-80-115 (Waste information and assessment program).

OSWM will provide technical assistance to the incorporated Towns regarding solid waste matters upon request.

OSWM staff will continue to serve as a solid waste information clearinghouse and will provide frontline customer service effort in response to citizen requests for solid waste information. These requests typically regard solid waste collection in the towns, homeowners' associations (HOA's), facilities, collectors, types of materials recycled, locations of recycling dropoff centers (DOCs), household hazardous waste events, and landfill operations.

7.1.5 Objective E: Provide a framework that will allow for a periodic review and evaluation of the recommendations and guidelines set forth in the solid waste management plan to ensure that the plan remains responsive to District needs.

OSWM will conduct a biennial plan audit that will test the validity of the assumptions and waste generation projections contained in the LCSWMP and will assess the status of the Implementation Plan components. OSWM will provide a biennial report on the previous two years (in odd-numbered years) to District members regarding the results of the two most recent audits and

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recommendations for issues that may require attention. This report will be provided to District members by April 1 for the reporting period ending the preceding December 31.

The District will monitor municipal solid waste (MSW) disposal capacity availability and demand and will propose adjustments as needed for the life of this plan during the proposed biennial audit process.

7.1.6 Objective F: Foster the participation and involvement of the general public in solid waste management planning and implementation.

Chapter 9 of the SWMP outlines the planning process and provides details on the public information, outreach and opportunities for public comment and participation in the plan's formation.

OSWM will continue its current role in providing public information, educational activities and materials including printed materials, purchased advertising, joint promotions with other agencies and organizations, educational programs to Loudoun County schools, information booths at public events and facilities, public speaking engagements and landfill tours.

7.1.7 Objective G: Establish an emergency solid waste management plan for disasters.

The planning process identified the District's lack of an emergency solid waste management plan for use in the event of a disaster. Emergency preparedness is necessary to protect public safety and to help the solid waste management system prepare to absorb the excess waste volumes created in an emergency or disaster.

To address this issue, the County will take action to position the District for disaster or emergency response. By January 1, 2004, the County will:

1. Seek DEQ pre-approval of an emergency solid waste/debris site(s);
2. Establish mutual aid agreements with other jurisdictions in Northern Virginia for disaster response; and,
3. Include solid waste management planning in the County's emergency management plan.

OSWM will coordinate and facilitate these actions.

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7.2 GOAL 2

7.2.1: Objective A: Identify collection system components that currently meet the District's needs.-

The Committee believes that the current collection system provided by the private sector is generally responsive to the needs of the District. Changes in requirements on collectors to increase recycling rates have been identified and are discussed in the recycling objectives. Several members of the collection industry advised the Committee that there were barriers to competition in the collection market. These barriers result from a combination of the single private sector transfer station and the tipping fees at the County SWMF which are higher than rates charged at other facilities in proximity to the County.

The Committee also expressed concerns regarding the sustainability of the rural collection system due to the number of collectors that are near or over retirement age.

7.2.2: Objective B: Identify a schedule for action to sustain the current collection system components that meet the District's needs.

District members will rely on private sector waste collection service providers for residential and business recycling and trash collection. The Towns may use contracted services or other means of providing for collection at their discretion.

Service contracts in the District will continue to be direct contracts between service providers and customers. HOAs will continue to act as contracting agents for association members. Costs will be borne by the customer in the form of taxes in the incorporated towns, and in the form of homeowner association dues or subscription fees in unincorporated areas of the District.

The County government will continue to collect solid waste and recyclables from public schools and other County buildings.

When using contracted services to provide collection of solid waste and recycling, Towns will use contractual terms and conditions to ensure that minimum collection service levels are met in their jurisdictions.

Private roll-off service companies will continue to conduct collection of construction and demolition waste (C&D) through direct contracts between the service company and the customer.

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7.2.3: Objective C: Identify approaches to address collection and transportation system deficits.

District members recommend that the Board of Supervisors revise the Landfill disposal rates to help sustain adequate solid waste collection services in rural areas.

As part of the phased implementation of Chapter 1084 revisions passed in 2002, the County will regulate C&D collectors and will collect information on C&D generation and disposal required by County Ordinance and by DEQ.

7.2.4: Objective D: Implement Chapter 1084 of the County Codified Ordinance (Solid Waste Collection and Transportation) that establishes minimum standards and requirements for collection services.

The County has set and will enforce minimum standards of service required of collection services providers under Chapter 1084 (Solid Waste Collection and Transportation). Collector inspections and reporting will be conducted under Chapter 1084. All collector regulatory activities will be funded through annual budget appropriations and costs will be partially offset through permitting fees.

OSWM is responsible for administering the County solid waste ordinances. The Towns may elect to co-adopt some or all of the County ordinances regulating collection and may request that OSWM enforce these provisions.

GOAL 3

7.3.1 Objective A: Identify disposal system components that meet the District's current needs.

The Towns and County will continue to rely on landfill disposal as their primary solid waste management technique. The Committee did not identify any fundamental flaws with the current system that is a mix of private sector facilities and a public facility. The majority of solid waste generated in the County will be delivered to private transfer stations for transport out of the County to privately owned and operated landfills for disposal.

7.3.2 Objective B: Identify a schedule for action to sustain collection system components that currently meet the District's needs.

The Committee did not identify requirements for new facilities to serve the District at this time. The current transfer system capacity is sufficient for meeting the District's needs for both MSW and construction waste. Available vegetative waste management facility capacity is adequate for District requirements. The County SWMF will require one or more disposal cells (dependent on demand)

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during the planning period. Schedules and funding for these are described in Chapter 8.

7.3.3 Objective C: Identify approaches to address the system and facility deficits.

The only deficit or issue identified in the disposal component were those related to sustaining rural collection, and improving competition in the collection market serving the developed portion of the County. These issues were addressed by the Committee's recommendation to reduce the tipping fee to achieve a more revenue neutral facility operation.

7.3.4 Objective D: Sustain adequate transfer facility capacity for moving MSW out of the County for disposal.

The County will continue to permit sufficient MSW transfer capacity to manage the entire MSW disposal demand at private facilities at a threshold of 125% of the disposal demand for the District, implemented through the provisions in Chapter 1080 of the Codified Ordinances of Loudoun County.

Based on this policy and Chapter 1080, adjustments in the maximum permit limits for private MSW transfer facilities contained in Chapter 1080 will not require adjustment prior to 2010.

OSWM will continue to monitor capacity availability and demand and will propose adjustments as needed for the life of this plan.

7.3.5 Objective E: Sustain adequate transfer facility capacity for moving C&D waste out of the County for disposal.

The District has sufficient C&D transfer capacity to address current and projected generation for the entire 20-year planning period; however, disposal capacity is unknown. This uncertainty suggests a need for a C&D waste characterization, generation and capacity study. There is currently no policy for limiting C&D transfer capacity in Chapter 1080.

Currently, there are several facilities for managing C&D, with additional C&D facilities scheduled to become operational in near future. Phased implementation of permitting the C&D collectors, new reporting requirements in Chapter 1084, and the proposed C&D study should provide assessment tools for determining what changes may or may not be necessary to deal with C&D waste.

District members will request that the Northern Virginia Regional Commission (NVRC) or the Metropolitan Washington Council of Governments (MWCOG) conduct a regional C&D waste generation and characterization study, to be completed by December 2004 to assess C&D disposal demand and supply.

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Pending receipt of the information from the proposed C&D generation and disposal capacity study, the District will assess the need for further action or initiatives as appropriate for C&D.

7.3.6 Objective F: Maintain the Loudoun County Solid Waste Management Facility (LCSWMPD) as a disposal option for solid wastes that are not desired or permitted at a private transfer facility, to provide emergency backup to the primary disposal option, and to provide a disposal option for residents and businesses who can not, or choose not, to obtain collection service.

Solid waste programs operated by the County will be paid through the General Fund. All construction costs for new cells and closure activities are funded by the County's General Fund and are partially offset by landfill tipping fees. In response to the constrained fiscal budget, the LCSWMPD is recommending that the Board of Supervisors amend the Landfill policy (**Appendix K**) to promote a more revenue-neutral facility while conserving landfill capacity.

Construction projects scheduled in the County's Capital Improvement Plan (CIP) are based on current disposal demand trends. OSWM will complete construction plans and bid specifications for the next cell (IIIB) of the LCSWMPD by the end of FY2004 and begin its construction in 2005. A schedule for subsequent design and construction is dependent on disposal demand and will be monitored as part of the biennial solid waste management plan audit.

Upon construction, the final cell (IIIC) will provide an additional seven years of capacity at current demand rates. Future development of the adjacent county-owned Woods Road property will also provide multiple decades of disposal capacity.

7.3.7 Objective G: Continue the policy that any landfill in Loudoun County, because of the potential threat to the environment, be publicly owned and operated as a revenue-neutral entity, either by the County or in legal/contractual relationships under which the County retains control of the facility.

The only landfill in the County is the County SWMF that is owned and operated by the County. The objective of County ownership is met at this time. If the Board of Supervisors accepts the Committee's recommendation to revise the landfill tipping fees, the revenue-neutrality objective will also be met.

7.4 GOAL 4

7.4.1 Objective A: Protect the environment by fulfilling the laws, regulations, ordinances and other requirements as set forth by the County, Commonwealth of Virginia, and U.S. EPA.

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The County is in compliance with all laws regulations, and ordinances at the LCSWMF. Through Chapter 1080, the County helps to ensure that other solid waste management facilities are compliant with all such requirements.

7.4.2 Objective B: Maintain the environmental management and monitoring systems at the Loudoun County Solid Waste Management Facility.

These environmental management systems are funded in the OSWM operational budget with annual appropriation from the County's general fund. The systems in place are compliant with all State regulations and funding is proposed to continue through the General Fund.

7.4.3 Objective C: Ensure remediation of contamination found to exist at any privately or publicly owned solid waste management facility in accordance with Virginia Department of Environmental Quality standards.

The County has set aside CIP funds to address an issue at the LCSWMF and has filed all documents as required by State regulations. Final disposition of this matter is pending DEQ review and approval. Facility permitting, compliance and enforcement activities through Chapter 1080 include financial assurance mechanisms to help fund cleanup and/or contamination liabilities. These regulatory efforts help ensure that both public and private solid waste management facilities are complaint with all requirements.

7.4.4 Objective D: Maintain enforcement of Chapter 1080 of the County Codified Ordinances, which provides for minimum standards and requirements for solid waste management facilities and regulates open dumping.

The County will provide local permitting and regulation of the LCSWMF and private solid waste management facilities under Chapter 1080 of the County Codified Ordinances in order to supplement Federal and State regulations and to protect human health and safety and the environment.

Routine inspections and facility reporting will be conducted. All facility regulatory activities will be funded through annual budget appropriations and costs will be partially offset through permitting fees.

The County will respond to, investigate, and resolve dump complaints and provide fee waivers to support cleanup of roadsides, illegal dumps, and farm dumps, when appropriate. The Towns may adopt their own ordinances and enforce them or co-adopt the County ordinances and request enforcement by OSWM.

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7.4.5 Objective E: Regulate the burning of solid and/or vegetative waste and the processing and/or disposal of waste dirt to protect the environment.

The District members have recommended that the Board of Supervisors amend Chapter 1080, the Zoning Ordinance, and other appropriate County ordinances to:

- prohibit burning of MSW;
- prohibit the burning of vegetative waste and CDD waste generated off-site;
- prohibit the burning of any solid waste or vegetative waste in the months of June, July, and August;
- restrict unauthorized dumping of waste dirt;
- regulate surface piles of waste dirt; and
- regulate soil processing.

OSWM will work with appropriate County agencies to develop text for consideration by the Board of Supervisors.

7.5 GOAL 5

7.5.1 Objective A: Establish minimum standards and requirements for recycling that are achievable and understandable.

The County has established the minimum standards and requirements for residents, businesses, and collectors to ensure County compliance with the State mandated 25 percent recycling rate.

The County and Town members will work towards consistent requirements for recycling and solid waste management in order to enhance the public's understanding of, and compliance with, recycling requirements.

7.5.2 Objective B: Ensure compliance with and enforcement of Chapters 1084 and 1086 of the County Codified Ordinance, which establish minimum standards and requirements for recycling.

OSWM has developed an implementation plan for these provisions that have phased compliance dates. The County is working with the collection industry, and HOAs to ensure understanding of the requirements.

7.5.3 Objective C: Maintain curbside recycling services through private sector contracted services with Towns, Homeowner and Commercial Property Associations, and individual subscriptions.

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Under Chapter 1084, collectors are required to provide curbside recycling services to customers in the County. The incorporated Towns will continue their curbside recycling activities and any business waste and DOCs, where applicable.

7.5.4 Objective D: Maintain the existing system of Recycling DOCs to supplement curbside recycling and to provide for material collection not provided by curbside services.

The County will continue to fund and operate eight centrally located DOCs in accordance with the BOS recycling policy (**Appendix M**) for residents who do not have curbside recycling pickup. The Town of Leesburg will continue to fund and operate three recycling DOCs to provide opportunities to those without curbside recycling collection.

7.5.5 Objective E: Provide recycling opportunities to the public for special wastes including scrap metal, appliances, tires, electronics and other wastes that require special handling.

The County currently provides a collection site (the County SWMF) and services for appliances and scrap metal, tires, electronics and other wastes that require special handling and transport. The objective is currently met, provided the support funding from the General Fund is continued.

The County will continue collection of other materials, including Christmas trees, computers, and other consumer electronics with coordinated special events.

7.5.6 Objective F: Ensure that Governments lead by example in effective recycling.

The County will maintain its mixed paper recycling program in its offices.

The County will follow Chapter 1086.13 of the Loudoun County Solid Waste Reduction and Recycling Ordinance, which provides for a 10% price preference for the purchase of recycled paper products.

7.5.7 Objective G: Ensure that adequate recycling infrastructure exists to support recycling programs.

District members recommend that the Board of Supervisors revise the comprehensive countywide joint-use public facilities plan to incorporate DOCs in all appropriate public facility sites.

District members recommend that the Board of Supervisors develop a capital improvement and funding schedule to construct and operate a DOC in the Purcellville area, replacing three DOC sites lost in 1995.

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OSWM will work with the County Land Use Referral process to ensure that recycling area standards are set and used in new developments.

The County will continue to permit two materials recovery facilities (MRFs) that handle a portion of the County's source separated recycling in accordance with Chapter 1080 of the County Codified Ordinances.

The Towns and the County will support private sector vegetative waste processing and yard waste composting to enhance the District's recycling efforts.

The Towns and the County recommend that the Board of Supervisors pursue a recyclables transfer station—to be located at the LCSWMF and operated as a private/public partnership—to address the lack of recycling infrastructure.

Any future sustainable private sector recycling or other public-private recycling initiatives will be considered by the LCSWMPD to achieve recycling goals and to move the District's Solid Waste Management system higher on the waste hierarchy.

7.6 GOAL 6

7.6.1 Objective A: Conduct Household Hazardous Waste collection activities for residents.

District members recommend that the Board of Supervisors provide funding to expand the household hazardous waste (HHW) program to up to twelve annual events by fiscal year 2005 in order to increase the opportunities and locations for residents to dispose of HHW properly. The events should be distributed geographically throughout the County.

7.6.2 Objective B: Conduct Clean Waste collection activities so that Conditionally Exempt Small Quantity Generators (CESQG) have a low-cost, safe disposal option for hazardous waste generated in qualifying quantities by business and commercial enterprises.

The County offers this service on a semi-annual basis at this time. The objective is currently met, provided the support funding from the General Fund is continued.

7.6.3 Objective C: Provide collection services for special wastes including motor oil, antifreeze, batteries, and other wastes that require special handling and transport and/or that contain hazardous materials.

The County currently provides a collection site (the County SWMF) and services for motor oil, waste antifreeze, batteries, and other wastes that require special

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handling and transport. The objective is currently met, provided the support funding from the General Fund is continued.

As a new initiative, the County will expand waste oil and other special waste collection to a regional site in the Western and Eastern parts of the County by fiscal year 2005, subject to available funding.

7.7 GOAL 7

For each of the objectives, the following information will be provided.

7.7.1 Objective A: Identify actions to be taken.

7.7.2 Objective B: Identify responsible parties to take action.

7.7.3 Objective C: Identify milestones for accomplishing actions.

7.7.4 Objective D: Identify benefits or outcomes for action.

7.7.5 Objective E: Identify funding sources for action.