

ACKNOWLEDGEMENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

LOUDOUN COUNTY
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& Chair, Ad Hoc Solid Waste Management Committee

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Ms. Eleanor Towe, Supervisor, Blue Ridge District

The Honorable Keith Reasoner, Mayor of Hamilton

The Honorable Steve Morgart, Mayor of Hillsboro

The Honorable Elaine Walker, Mayor of Lovettsville

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ACKNOWLEDGEMENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

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EXECUTIVE SUMMARY

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

The Charge

In July of 2002, I agreed to serve as Chair of the Ad Hoc Solid Waste Management Planning Committee (the Committee). The Committee's charge from the Board of Supervisors was to conduct a review of the Solid Waste Management Plan (SWMP) and to complete any and all revisions in time for a final approval by July 2003.

I soon realized that reviewing and revising the Solid Waste Management Plan was a multifaceted challenge. Solid waste management has technical, financial, environmental, legal, regulatory, political, policy, and marketplace dimensions. I also realized that, as a changing and growing County, the plan had to answer to many groups and individuals or stakeholders. These stakeholders included individual citizens, major solid waste customers and contract holders (Towns and HOA's), environmental advocacy groups, and the solid waste industry service providers who collect, transport, recycle and dispose of the solid waste generated in the nation's second fastest growing County. Participation from these stakeholders was very important in conducting a meaningful process and in creating a workable plan.

Satisfying Many Stakeholders

First of all, the plan had to meet the State regulations for solid waste management planning (9 VAC 20-130-10 *et seq.*). The regulations state that "every city, county, and town in the Commonwealth--singly or in conjunction with other jurisdictions as a planning district--must submit a completely revised solid waste management plan between July 1, 2003, and July 1, 2004."

Second, the plan had to address the solid waste management needs of the entire Loudoun County Solid Waste Management Planning District (LCSWMPD). The District includes the Towns of Hamilton, Hillsboro, Leesburg, Lovettsville, Middleburg, Purcellville, and Round Hill, as well as the unincorporated portions of the County. In addition to my Board colleagues, Supervisors Burton and Towe, I asked each Town to name an official representative to the Committee. I believe that I speak for each Committee member when I say that the cooperation between the County and the Towns has been most productive and gratifying in working together on this plan. It really WAS work and the Committee members were diligent in their attendance and in working through lengthy meetings full of complex discussions and decisions.

Finally, it was clear to me that the plan had to be developed through a process of collaboration with all the affected parties. An open and deliberative approach to the plan's development and review is not only required by State regulation, but has helped to ensure that the ideas and concerns of the varying individuals and constituent groups are served by the plan.

EXECUTIVE SUMMARY

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

The Process

Prior to the first meeting, I sent background information to all members of the Board of Supervisors and to the Town representatives. The background information included the County's Solid Waste Ordinances, Summary reports on the activities and recommendations from previous solid waste citizens' committees, State regulations and requirements governing solid waste management planning, and the District's 1995 Solid Waste Management Plan.

I also sent letters of invitation and announcement of the planning process to approximately 150 organizations and individuals. The invitations went to permitted solid waste collectors, solid waste management facility operators, Large Homeowners' Associations (HOAs) and residential managers, leaders of Loudoun environmental groups, and respondents to the solid waste survey of businesses that had indicated an interest in the planning process. I encouraged these parties to attend meetings of the Ad Hoc SWMP Committee and advised them that more formal public input opportunities would be available.

The Committee met eight times between September 2002 and February 2003 with advance meeting notices placed on the public calendar; each meeting was open to the public for attendance. Copies of meeting packets and presentation materials were provided to the Committee in advance. The materials were also available at each meeting and available upon request. Members of the public who were in attendance often addressed the Committee to ask questions, provide information, or make comment. Each meeting had an agenda, a meeting summary from the previous meeting, records of straw votes from the previous meeting, and staff responses to requests for information or to the Committee's direction for action. In addition to meeting discussions, the Committee also received letters from interested parties and solid waste industry representatives. Copies of all letters and responses were provided to the Committee.

The first two meetings involved staff presentations on background information. By the second meeting and in several subsequent meetings, the Committee was considering a series of issues and options and began taking straw votes on issues regarding the District's solid waste management system. The votes on issues and options occurred through the October meetings with final resolution of outstanding issues decided in November. The Committee's decisions formed a series of Findings and Recommendations that were the subject of the January public input session and that ultimately became Chapter 5 of the plan.

Community Comments

The Committee responded to letters from members of the solid waste industry and initiated discussion on concerns for a lack of recycling infrastructure in the County, business interest in expanding into recycling operations, and a request to lower the tipping fees at the LCSWMF to foster competition, especially for independent solid waste collectors who do not have a facility in the County.

EXECUTIVE SUMMARY

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

The Committee's findings reflect these discussions and recommend a public-private partnership to site, construct, and operate a recycling transfer station at the Loudoun County Landfill within a prescribed set of parameters. The Committee also spent considerable time on a particular company's request to lower the tipping fees at the LCSWMP to foster competition. This request to consider relief to small independent solid waste haulers led to the Committee's request for more information. The request also provided guidance to staff that two objectives should be considered in reviewing the tipping fees – conservation of landfill capacity and a more revenue neutral operation that would cover operational and perhaps capital costs.

The County's solid waste consultant completed a preliminary study describing four scenarios, each with a goal of capturing increased waste stream percentages and on a given pricing structure. Each scenario also provided estimates of revenue that would be generated and the projected amount of landfill capacity that would be consumed. The Committee's findings include a recommendation that would adjust tipping fees at the Landfill with the dual goals of conserving capacity and revenue neutrality.

A public input session initially scheduled for December was postponed until January due to weather conditions. I sent 247 invitations to the growing list of interested parties. The list included the Board, Town Councils and Mayors, the largest HOA's and property management companies, environmental and other interest groups, individuals or groups who asked to be included on the outreach list, and solid waste industry representatives from the County's regulated solid waste community of permitted solid waste collectors and facility operators.

McCaffery Associates conducted this session using the small group networking process to allow key citizens, government and industry representatives to learn of the Plan's key elements, to react to the Committee's proposals, and to propose additions, deletions or changes to the Plan before it was finalized. Staff made brief presentations on the topics of collection, disposal, recycling, environmental protection, and policy, planning and public information, followed by a small group discussion of the Committee's recommendations for activities or policies on each respective topic.

The Committee had an additional meeting to consider the comments from the public input session. At its February 12, 2003 meeting, the Committee decided to send the Draft SWMP to the Board of Supervisors, recommending a Public Hearing and consideration by the Board of Supervisors and each member Town.

Major Plan Elements

The SWMP's major elements are:

- ◆ Introduction and Goals for the Plan (Chapter 1)
- ◆ Description of the Types and Quantities of Waste Generated in the District (Chapter 2)

EXECUTIVE SUMMARY

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

- ◆ Description of the District's Solid Waste Management System including collection, transportation, transfer and processing facilities, disposal facilities and analyses of the capacity of these components to sustain service; a description of roles of the Towns, the County and the private sector solid waste industry in solid waste services; recycling rates and how to sustain and improve recycling; and issues and service gaps in the District's solid waste management system (Chapter 3).
- ◆ Solid Waste Hierarchy of Waste Reduction, Reuse, Recycling, Waste-to-Energy, and Landfilling (Chapter 4)
- ◆ Committee Findings (Chapter 5)
- ◆ Objectives and Ways to Implement the Plan Objectives (Chapters 6 and 7)
- ◆ Current and Future Funding for the Solid Waste Management Plan Objectives (Chapter 8); and
- ◆ Description of public participation in the Plan's formation (Chapter 9).

Major Committee Findings

Solid waste planning deficiencies:

- Regional planning agencies (MWCOC and/or NVPA) should conduct a study of construction and demolition waste to determine the quantity generated, the waste composition, the present disposition of the waste, and the capacity of the region to manage this waste for the next 20 years.
- The District should proactively plan and prepare for waste management services in natural and manmade disasters. Debris waste management permits and a protocol for provision of services, and reciprocal support agreements with other jurisdictions are key provisions of this effort.
- The District members will routinely review the provisions of the Solid Waste Management Plan and ensure that the solid waste management system is functioning as envisioned. The District members have committed to a formal biannual process that will assess the validity of the plan's assumptions on waste generation, facility capacity and external factors, and identify any revisions to the plan that may be appropriate.

The Committee recommends that the District's current reliance on private sector provision of solid waste collection services continue. Minimum service standards continue to be set by the Towns through contractual terms, and by the County through regulations.

Solid Waste Management Facilities:

- Facility capacity to process vegetative waste and construction and demolition waste is adequate to address all District needs during the 20 year planning period. No increases beyond those identified in the plan are needed or proposed.
- Facility capacity to process municipal solid waste is adequate to address the District's needs through the next 10 years. This finding will be closely monitored in the biennial review.

EXECUTIVE SUMMARY

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

- The Committee recommended that the Board of Supervisors direct the County Administrator to develop and implement a plan that balances revenue neutrality with reasonable conservation of disposal capacity at the County's Solid Waste Management Facility.
- Lower tipping fees at the County facility respond to multiple private sector requests to foster competition in the collection segment of the industry.

Increase recycling and material reuse levels in the District to ensure compliance with State recycling mandates:

- Address the most critical deficit in rural recycling opportunities by immediately funding, constructing, and operating a Recycling Dropoff Center (DOC) in the Purcellville area.
- Provide DOCs as a routine part of capital facilities planning for every regional government facility.
- Pursue a private/public partnership to construct and operate a recycling depot at the County Solid Waste Management Facility to reduce or eliminate financial barriers to effective recycling currently faced by the providers of collection services.
- Rekindle the generic Recycling benefits message of the 1970s.
- Work to establish a waste exchange program that allows reuse of materials instead of disposal.

Environmental Protection initiatives:

- Increase the opportunity for Loudoun residents to dispose of household hazardous waste (HHW) by increasing the number of HHW collection events.
- Increase the opportunity for Loudoun residents to dispose of waste oil, antifreeze, and other special wastes by siting, construction, and operation of special waste collection centers in the eastern and western portions of the County.
- Increase the County regulatory oversight over processing and disposal of waste dirt, and burning of solid waste.

Implementation

The plan calls for scheduled annual reporting to the District and biennial review by the District. The annual report from Solid Waste Management Staff will keep District members apprised of the annual status of solid waste. The routine review of the District's solid waste management system every two years creates a system of accountability to determine if the system is working as anticipated or whether emerging conditions warrant a change. This feature of this Plan helps to guarantee the plan's viability over time by establishing an alert mechanism to signal a call for action.

EXECUTIVE SUMMARY
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

Transmittal

I am grateful to the Committee and staff who have worked so diligently in developing this plan. I am especially grateful to the individual citizens, community group representatives, and members of the solid waste industry who spent their evenings at Committee meetings, even after a long day's work.

It is a privilege to submit this Solid Waste Management Plan for your consideration. I am confident that the Plan will guide our solid waste service providers in delivering services and will serve our citizens in providing safe and effective solid waste management practices.

Respectfully Submitted,



Sally R. Kurtz, Chair
Ad Hoc Solid Waste Management Planning Committee

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

	Page
ACKNOWLEDGEMENTS	i
EXECUTIVE SUMMARY	iii
LIST OF TABLES	xvi
LIST OF FIGURES	xvii
LIST OF APPENDICES	xviii
GLOSSARY OF TERMS.....	xix
ABBREVIATIONS AND ACRONYMS	xxiii
1.0 INTRODUCTION AND GOALS.....	1-1
1.1 Loudoun County Solid Waste Management Planning District	1-1
1.2 Solid Waste Management Planning Authority	1-1
1.3 Plan Development Approach	1-2
1.4 Goals	1-2
1.5 LCSWMPD Resolutions of Approval	1-3
1.6 Department of Environmental Quality Checklist	1-22
1.7 Transmittal of Plan Document to DEQ	1-24
1.8 Virginia DEQ Letter of Approval for the 2004 SWMP	1-26
2.0 WASTE CHARACTERIZATION & QUANTITIES.....	2-1
2.1 Description of Plan Area	2-1
2.1.1 Transportation	2-1
2.1.2 Jobs	2-2
2.1.3 Housing	2-3
2.1.4 Urban Concentration	2-4
2.2 Population Data and Projections	2-4
2.2.1 Population	2-4
2.2.2 Households	2-6
2.2.3 Employment	2-7
2.2.4 Automobiles	2-8
2.2.5 Landclearing.....	2-8
2.3 Composition of Solid Waste Generated in Loudoun County	2-9
2.3.1 Municipal Solid Waste	2-9
2.3.2 Construction and Demolition Waste	2-9
2.3.3 Vegetative Waste	2-9
2.3.4 Consumer Separated Recyclables	2-10
2.3.5 Waste Dirt	2-10
2.3.6 Household Hazardous Waste	2-10

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

	Page
2.3.7 Regulated Medical Waste	2-11
2.3.8 Special Wastes	2-11
2.3.9 Hazardous Waste	2-12
2.4 Solid Waste Generation Projections	2-12
2.4.1 Data Sources Used in Determining Waste Generation	2-12
2.5 Solid Waste Management System Demand	2-15
3.0 SOLID WASTE MANAGEMENT SYSTEM	3-1
3.1 Introduction	3-1
3.2 Collection	3-1
3.2.1 Municipal Solid Waste Collection by the Private Sector ...	3-1
3.2.2 Role of the County in Collection	3-2
3.2.3 Role of the Towns in Collection	3-2
3.2.4 Individuals	3-3
3.2.5 Distribution of Municipal Waste Collection	3-3
3.2.6 Construction and Demolition Waste Collection	3-4
3.2.7 Vegetative Waste Collection	3-4
3.2.8 Special Waste, HHW and Clean Waste Programs.....	3-4
3.2.9 Industrial Waste Collection.....	3-5
3.3 Waste Disposal, Transfer and Processing.....	3-5
3.3.1 Private Sector Disposal, Transfer, and Processing	3-5
3.3.1.1 MSW and C&D Processing	3-5
3.3.1.2 Vegetative Waste Processing	3-6
3.3.1.3 Waste Dirt Processing	3-6
3.3.1.4 Special Waste Processing	3-7
3.3.2 Role of the County	3-7
3.3.2.1 LCSWMPF	3-9
3.3.2.2 Facility Capacity and Phasing Schedule	3-9
3.3.2.3 Regulation of Facilities	3-11
3.3.3 Summary of System Disposal Capacity	3-11
3.3.4 Inventory of Known Disposal Sites	3-14
3.4 Solid Waste Diversion and Recycling in Loudoun County	3-14
3.4.1 Recycling Challenges.....	3-14
3.4.2 Recycling - The Role of the County	3-14
3.4.2.1 Recycling Compliance and Enforcement	3-15
3.4.2.2 Loudoun County Recycling Policy	3-15
3.4.2.3 Recycling Dropoff Centers (DOC's)	3-16
3.4.2.4 Household Hazardous Waste Collection	3-16
3.4.2.5 Special Waste Collection	3-17
3.4.3 The Role of the Towns	3-19
3.4.4 The Role of the Private Sector Solid Waste Industry	3-20
3.4.5 The Role of the County	3-22

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

	Page
3.4.6 Recycling Rates	3-22
3.4.6.1 Loudoun County's Recycling Rate	3-23
3.4.6.2 Materials Recycled in Loudoun County	3-23
3.4.7 Community Organizations	3-24
3.5 Strategy for Public Education in Solid Waste Management	3-24
3.6 Dump Complaints/Litter Control	3-24
3.7 Public/Private Partnerships	3-24
3.8 Waste System Flow	3-25
3.8.1 Changes in Flow Patterns	3-25
3.8.2 Changes in Municipal Solid Waste Flow	3-25
3.8.3 Construction and Demolition Waste Flow	3-28
3.8.4 Vegetative Waste Flow	3-28
3.9 External/Regional Factors	3-28
3.9.1 Federal/State Legislation	3-28
3.9.2 Diminished Processing Capacity	3-33
3.9.3 Increasing Fuel/Transportation Costs	3-34
3.9.4 Declining Market Value of Recyclables	3-34
3.10 Issues with Solid Waste Management System	3-34
3.10.1 Current System Has No Warranty, Expressed or Implied.....	3-34
3.10.2 Waste Changes Every Five Years or So	3-34
3.10.3 Recycling of MSW Declining	3-35
3.10.4 Disposal of Consumer Recyclables	3-35
3.10.5 Service Gaps in Rural Loudoun	3-35
3.10.6 County Has Responsibility for Special Waste.....	3-35
3.10.7 County Cannot Direct the Allocation of Private Facility Capacity	3-36
3.10.8 Disaster/Emergency Response	3-36
3.10.9 County Cannot Ensure the Preservation of the Status Quo	3-36
 4.0 CONSIDERATION OF THE SOLID WASTE HIERARCHY.....	 4-1
4.1 The Solid Waste Hierarchy	4-1
4.2 Source Reduction	4-2
4.2.1 Current Status.....	4-2
4.2.2 Future Considerations.....	4-2
4.3 Reuse	4-3
4.3.1 Current Status.....	4-3
4.3.2 Future Considerations.....	4-4
4.4 Recycling	4-4
4.4.1 Current Status.....	4-4
4.4.2 Future Considerations.....	4-5

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

	Page
4.5 Resource Recovery	4-5
4.5.1 Current Status.....	4-5
4.5.2 Future Considerations.....	4-5
4.6 Incineration	4-6
4.6.1 Current Status.....	4-6
4.6.2 Future Considerations.....	4-6
4.7 Landfilling	4-6
4.7.1 Current Status.....	4-6
4.7.2 Future Considerations.....	4-7
5.0 COMMITTEE FINDINGS.....	5-1
5.1 Committee Discussion of Issues.....	5-1
5.2 Summary of Committee Findings.....	5-1
6.0 OBJECTIVES.....	6-1
7.0 IMPLEMENTATION OF THE SOLID WASTE MANAGEMENT PLAN	7-1
7.0 Implementation Strategy	7-1
7.1 Goal 1	7-1
7.1.1 Objective A.....	7-1
7.1.2 Objective B.....	7-1
7.1.3 Objective C	7-1
7.1.4 Objective D	7-2
7.1.5 Objective E.....	7-2
7.1.6 Objective F.....	7-3
7.1.7 Objective G	7-3
7.2 Goal 2	7-4
7.2.1 Objective A.....	7-4
7.2.2 Objective B.....	7-4
7.2.3 Objective C	7-5
7.2.4 Objective D	7-5
7.3 Goal 3	7-5
7.3.1 Objective A.....	7-5
7.3.2 Objective B.....	7-5
7.3.3 Objective C	7-6
7.3.4 Objective D	7-6
7.3.5 Objective E.....	7-6
7.3.6 Objective F.....	7-7
7.3.7 Objective G	7-7
7.4 Goal 4	7-7
7.4.1 Objective A.....	7-7
7.4.2 Objective B.....	7-8
7.4.3 Objective C	7-8

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

	Page
7.4.4 Objective D.....	7-8
7.4.5 Objective E.....	7-9
7.5 Goal 5.....	7-9
7.5.1 Objective A.....	7-9
7.5.2 Objective B.....	7-9
7.5.3 Objective C.....	7-9
7.5.4 Objective D.....	7-10
7.5.5 Objective E.....	7-10
7.5.6 Objective F.....	7-10
7.5.7 Objective G.....	7-10
7.6 Goal 6.....	7-11
7.6.1 Objective A.....	7-11
7.6.2 Objective B.....	7-11
7.6.3 Objective C.....	7-11
7.7 Goal 7.....	7-12
7.7.1 Objective A.....	7-12
7.7.2 Objective B.....	7-12
7.7.3 Objective C.....	7-12
7.7.4 Objective D.....	7-12
7.7.5 Objective E.....	7-12
8.0 FUNDING THE SOLID WASTE MANAGEMENT SYSTEM.....	8-1
8.0 Part I: Funding the Current Solid Waste Management System	8-1
8.1 Private Collection	8-1
8.1.1 Individual Residential Collection	8-1
8.1.2 Homeowners' Associations Collection	8-2
8.1.3 Commercial Collection	8-2
8.1.4 Waste Brokers Collection	8-2
8.1.5 Construction Wastes Collection	8-2
8.1.6 Special and Medical Wastes Collection	8-3
8.1.7 Value of the Solid Waste Collection Industry in Loudoun County	8-3
8.1.7.1 Residential Service	8-4
8.1.7.2 Commercial/Business Service	8-4
8.1.7.3 Construction Service	8-4
8.2 Public Collection	8-5
8.2.1 Town Collection Contracts	8-5
8.2.2 Town Departments of Public Works	8-5
8.2.3 Loudoun County School Board and County Public Works	8-5
8.2.4 County Special Collections	8-5
8.2.5 Virginia Department of Transportation (VDOT)	8-5
8.3 Private Facilities	8-5
8.4 Public Facilities	8-6
8.4.1 Existing Disposal Unit ("Old Landfill" Site)	8-6
8.4.1.1 County Facility Existing Debt Service	8-7
8.4.1.2 Woods Road Solid Waste Management Facility ..	8-8

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

		Page
	8.4.1.3 County Facility Revenues	8-8
	8.4.1.4 Tipping Fees	8-10
8.5	Loudoun County Programs	8-11
	8.5.1 Current Funding Method for County Programs	8-11
	8.5.2 Loudoun County Solid Waste Management Facility	8-11
	8.5.3 Environmental Compliance Monitoring and Quality Assurance	8-11
	8.5.4 Policy, Planning and Compliance	8-11
	8.5.4.1 Regulation and Enforcement	8-11
	8.5.4.2 SWMP Administration and Compliance	8-13
	8.5.5 Solid Waste Diversion and Recycling	8-13
	8.5.5.1 Recycling Dropoff Center Facilities	8-13
	8.5.5.2 Curbside Residential Recycling	8-13
	8.5.5.3 Commercial Recycling	8-13
	8.5.5.4 Household Hazardous Waste Events	8-14
	8.5.5.5 Education and Public Information	8-14
	8.5.5.6 Litter Grant Administration	8-14
	8.5.6 Reduction and Reuse	8-14
8.6	Town Programs	8-15
	8.6.1 Town Recycling Programs	8-15
	8.6.2 Litter Grant	8-15
8.7	Current Programs of NGOs or Agencies.....	8-16
8.0	Part II: Funding the Future Solid Waste Management System	8-16
	8.8 Future Reduce and Reuse Programs	8-16
	8.9 Future Private Collection	8-16
	8.10 Future Public Collection	8-16
	8.10.1 County Programs	8-16
	8.10.2 Town Programs	8-16
	8.11 Private Facility and Construction	8-17
	8.11.1 Private Sector Waste Disposal	8-17
	8.11.2 Private Sector Waste Processing and Waste Transfer Facility Schedule	8-17
	8.12 Future Public Facilities	8-17
	8.12.1 Future Landfill Capacity and Facility Construction Schedule	8-17
	8.12.2 The Woods Road Solid Waste Management Facility (WRSWMF)	8-18
	8.12.3 Future Recycling DOC Site Facilities	8-19
	8.12.4 Future Construction Waste Processing	8-19
	8.12.5 Future Vegetative Waste Processing	8-19
	8.13 Future Public Sector Recycling and Diversion Programs.....	8-19
	8.14 Future County Programs	8-19
	8.15 Future Town Programs	8-20

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

		Page
9.0	PUBLIC PARTICIPATION.....	9-1
9.1	Introduction	9-1
9.2	The Ad Hoc Solid Waste Management Planning Committee	9-1
	9.2.1 Preparation and Planning	9-1
	9.2.2 Meetings of the Ad Hoc SWMP Committee.....	9-2
	9.2.3 Formal Comment by Interested Parties.....	9-2
	9.2.4 Issues and Options.....	9-3
	9.2.5 Public Input Session: Small Group Networking Process ...	9-4
	9.2.6 Referral from the Committee	9-4
9.3	Solid Waste Management Planning District Public Hearing	9-5
9.4	County of Loudoun.....	9-6
9.5	Town of Middleburg	9-7
9.6	Town of Hamilton	9-7
9.7	Town of Purcellville	9-7
9.8	Town of Round Hill	9-7
9.9	Town of Lovettsville.....	9-7
9.10	Town of Hillsboro	9-8
9.11	Town of Leesburg	9-8

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

LIST OF TABLES

2-1	Population, Households, Employment, Automobiles, and Landclearing, in thousands	2-6
2-2	At Place Employment in Loudoun by Major Industry Classification and Number of Employees (2001)	2-7
2-3	Automobile Waste Generation Projections, in thousands	2-8
2-4	Calculating Waste Quantity Estimates	2-13
2-5	Waste Generation for Loudoun County, 1990-2025, in thousands of tons per year.....	2-14
3-1	Regional Solid Waste Disposal Facilities	3-8
3-2	LCSWMF Capacity Summary	3-10
3-3	Special and Recyclable Waste Processors	3-19
3-4	Regional Recycling Processors	3-21
8-1	Loudoun County Collection Market	8-3
8-2	Publicly Quoted Rates at Private Facilities in Loudoun County (September 2002)	8-6
8-3	Bond Issues by Amount of Sale and Year Issued	8-7
8-4	Old Landfill Debt Retirement Schedule	8-7
8-5	Debt Retirement Schedule for 1990 WRSWMF Bond Issue	8-8
8-6	Revenue History for the LCSWMF	8-9
8-7	Comparison of LCSWMF Fees to Other Jurisdictions	8-10
8-8	Solid Waste Management Program Costs – FY 03	8-12
8-9	Anticipated LCSWMF Capital Projects	8-18
9-1	Ad Hoc Solid Waste Management Planning Committee Meetings	9-5

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

LIST OF FIGURES

		Page
1-1	Loudoun County Solid Waste Management Planning District	1-1
2-1	Washington DC-MD-VA-WV PMSA, Loudoun County	2-3
2-2	Population, 1990-2025, in thousands of people	2-5
2-3	MSW, C&D and VW as proportions of their total in 2000	2-10
2-4	Special Wastes Collected in Virginia in 1991 for Recycling, in Tons	2-11
3-1	Distribution of MSW Collection	3-3
3-2	LCSWMP Location of Cells/Phases	3-9
3-3	MSW Facility Capacity	3-12
3-4	C&D Facility Capacity	3-13
3-5	Vegetative Waste Capacity	3-13
3-6	Recycling Rates Reported to VA DEQ	3-22
3-7	Waste Flow Model – MSW	3-26
3-8	Disposition of MSW Generated in Loudoun County, CY2002 (MSW generated that is recycled is excluded)	3-27
3-9	Waste Flow Model – C&D	3-29
3-10	Disposition of C&D Generated in Loudoun County	3-30
3-11	Waste Flow Model – VW	3-31
3-12	Waste Flow Model – Yard Waste	3-32
4-1	Solid Waste Management Hierarchy.....	4-1
4-2	Loudoun County’s Waste Hierarchy	4-7
8-1	Total Business for the Loudoun County Landfill--Actual Fee Revenues + Waived Fee Values	8-9

TABLE OF CONTENTS
LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

LIST OF APPENDICES

A	Laws and Regulations Cited	A-1
B	Board of Supervisors and Town Council Items	B-1
C	SWMPC Agenda and Agenda Items.....	C-1
D	SWMPC Meeting Summaries	D-1
E	Chapter 1084, Solid Waste Collection and Transportation	E-1
F	Chapter 1086, Solid Waste Reduction and Recycling	F-1
G	Major & Minor Solid Waste Collectors, 2003.....	G-1
H	Chapter 1082, Solid Waste Storage	H-1
I	Private Solid Waste Management Facilities in Loudoun	I-1
J	Chapter 1080, Solid Waste Management Facilities	J-1
K	Board of Supervisors Landfill Policy	K-1
L	Inventory of Known Disposal Sites	L-1
M	Board of Supervisors Recycling Policy	M-1
N	Recycling Dropoff Center.....	N-1
O	Commonwealth of Virginia Locality Recycling Rate Report	O-1

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

GLOSSARY OF TERMS

Conditionally Exempt Small Quantity Generators (CESQG): A non-residential waste generator of less than 100 kilograms per month (kg/m) (roughly 220 pounds or 25 gallons) of hazardous wastes, or less than 1 kg/m (roughly 2 pounds) of acutely hazardous waste and who never accumulates more than 1000 kg (roughly 5-55 gallon drums) of hazardous waste at any time. CESQG wastes are hazardous waste but are subject to reduced (exempted) hazardous waste management requirements under Federal Regulations and VHWMR 9 VAC 20-60-12 *et seq.*

Collector: A person or business who collects and transports solid waste or recyclables from residences or businesses for a fee. In Loudoun County, collectors are classified as Major or Minor.

Construction and Demolition Waste (C&D): Waste that is generated during the construction or demolition of buildings. C&D includes lumber, sheetrock, drywall, glass, pipes, concrete, bricks, etc. Trash generated at a construction site and paints are *not* C&D Waste.

Debris Waste: Waste that is generated from landclearing activities. Debris includes stumps, wood, brush, leaves, and soil.

Demolition Waste: Waste that is generated during the demolition of a building. Materials include those in C&D waste. In the Loudoun County Solid Waste Management Plan, Demolition Waste is discussed in conjunction with C&D waste.

Disposal: Disposal is the final destination of solid waste for the person currently possessing it. Legitimate methods of disposal include landfilling or incineration; other methods include illegal dumping into water or onto land, littering, illegal incineration, illegal burying of waste, and the leaking of waste due to improper handling.

Garbage: Garbage is a common term for municipal solid waste. It is composed of discarded materials and includes household trash.

Hazardous Waste: Hazardous wastes are wastes that, if not handled or disposed of properly, could cause injury or death, or damage or pollute land, air or water. Hazardous waste determinations are based on whether the waste is currently "listed" by the EPA or exhibits a "characteristic" of hazardous wastes. Listed wastes are waste that either exhibit one of the characteristics or contain any number of toxic constituents that have been shown to be harmful to health and the environment. The EPA list includes over 400 hazardous wastes. Characteristics of hazardous waste are "Ignitable/Flammable", "Corrosive", "Reactive" or "Toxic".

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

Household Waste: Household waste is a term for garbage or trash generated in a residence.

Household Hazardous Waste (HHW): Materials commonly found in households which, if handled or disposed of improperly, could cause damage to the home or the environment. HHWs include solvents, oil-based paint, insecticides, pesticides, herbicides, gasoline and other fuels, photographic chemicals, and swimming pool chemicals.

Integrated Solid Waste Management: A combination of techniques to economically and efficiently manage solid waste and incorporate source reduction, recycling and waste combustion and/or landfilling.

Industrial Waste: Waste generated by manufacturing or industrial processes is not regulated as hazardous waste. Industrial waste does not include mining waste or oil and gas waste.

Institutional Waste: Waste generated by hospitals, nursing homes, schools, and other such institutions. Institutional waste can include several other types of waste, including municipal solid waste and medical waste.

Landfill: A solid waste management facility where waste is buried as the primary disposal method.

Loudoun County Solid Waste Management Facility (LCSWMF): A solid waste facility owned and operated by Loudoun County, located southeast of the Town of Leesburg. The LCSWMF features a sanitary landfill, a recycling dropoff center, a special waste dropoff center, and collection areas for scrap metal, waste tires, and vegetative waste.

Major Collector: A permitted collector that operates 4 or more vehicles and collects more than 2,000 tons of waste per year.

Materials Recovery Facility (MRF): A solid waste management facility that receives solid waste and then separates recyclable materials from non-recyclable wastes. The facility then markets the recyclable materials and disposes of the remaining waste.

Minor Collector: A permitted collector that operates fewer than 4 vehicles and collects less than 2,000 tons of waste per year.

Municipal Solid Waste (MSW): Waste that is normally composed of residential, commercial, and institutional waste. MSW is also known commonly by the terms “refuse,” “trash,” or “garbage.”

Nonhazardous Waste: Solid wastes not classified by listing or characteristic as hazardous waste.

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

Principal Recyclable Materials (PRMs): Includes paper, metal (except car bodies), plastic, glass, yard waste, wood, and textiles, or material as may be authorized by the Director of DEQ.

Recyclable Materials: Any material separated from the waste stream to be used in the manufacture of a new product.

Recycling: Separating a given waste material from the waste stream and processing it so that it may be used again as a raw material for a product, which may or may not be similar to the original product. Recycling does not include processes that only involve size reduction.

Recycling Dropoff Center (DOC): An approved site where recyclables are accepted from the public. A DOC does *not* feature any processing equipment.

Refuse: Refuse is a common term for municipal solid waste. It is composed of discarded materials and includes household trash. Refuse generally is solids, not liquids.

Residential Waste: Residential Waste is a term for garbage or trash generated in a residence.

Reuse: Separating a given solid waste material from the waste stream and using it, without processing or changing its form, other than size reduction, for the same or another end use.

Rubbish: Rubbish is a common term referring to trash or garbage that is not generated *inside* a home. Rubbish includes trimmings from shrubs or trees, grass, rags, old printed matter, and other paper.

Sanitary Landfill: An engineered facility for the burial of solid waste. A Sanitary Landfill is located, designed, constructed, and operated so as to contain and isolate the buried waste and to minimize present or potential hazards to human health or the environment. The LCSWMF includes a sanitary landfill.

Solid Waste: Unwanted materials resulting from household disposal, commercial and industrial operations, agricultural operations, or community activities. Solid Waste includes garbage, refuse, sludge, or other discarded material. Solid Waste can be solids, liquids, semisolids, and gases. Solid Waste does not include materials found in sewage, materials found in irrigation return flows, or nuclear wastes and by-products.

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

Source Reduction: 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-separated Recyclables: Recyclable materials separated from the trash by the person that generated them. Recyclables placed in separate curbside containers by residents is an example of Source-separated Recyclables.

Supplemental Recyclable Materials: Waste tires, used oil, used oil filters, used antifreeze, automobile bodies, construction waste, demolition waste, debris waste, batteries, ash, sludge or large diameter tree stumps, or material as may be authorized by the Director of DEQ.

Trash: Trash is a common term for municipal solid waste. It is composed of discarded materials and includes household waste.

Vegetative Waste (VW): Decomposable materials generated by yard and lawn care or landclearing activities. Vegetative Waste includes leaves, grass, trimmings, shrub prunings, bar, limbs, roots, and stumps.

Vegetative Waste Management Facility (VWMF): A solid waste facility that collects, processes, and manages vegetative waste. Products from a VWMF include mulch and wood chips.

Waste Hierarchy: The EPA and State regulatory ranking of methods for handling solid waste in order of preference. The top of the hierarchy is source reduction and reuse, followed by recycling, with waste combustion and/or landfilling at the bottom, or at least preferred, on the hierarchy.

Waste Transfer Station (WTS): A facility where solid waste is transferred from collection vehicles (e.g., trash trucks) to hauling vehicles (e.g., tractor trailers) for transport to another facility for disposal or resource recovery.

Yard Waste (YW): Materials generated by lawn and yard care. Yard waste includes leaves, grass, trimmings, and brush. Yard waste is a *kind* of vegetative waste; yard waste does *not* include roots or stumps larger than 6 inches in diameter.

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

ABBREVIATIONS AND ACRONYMS

AAA: AAA Recycling and Trash Removal Services, Inc.

A&E: Architectural and Engineering

ARI: Air Conditioning & Refrigeration Institute

BFI: Browning-Ferris Industries, Inc.

BOS: (Loudoun County) Board of Supervisors

C&D: Construction and Demolition

CESQG: Conditionally Exempt Small Quantity Generators (of hazardous waste)

CFC: Chlorofluorocarbon

CIP: Capital Improvement Plan

CPG: Comprehensive Procurement Guidelines

CRT: Cathode Ray Tube

CSI: Con-Serv Industries, Inc.

CY: When “CY” *precedes* a year, it means “Calendar Year” (e.g., CY2003); when “CY” *follows* an expression of quantity, it means “Cubic Yards” (e.g., 5,000 CY).

DED: (Loudoun County) Department of Economic Development

DEQ: (Virginia) Department of Environmental Quality

DOC: Dropoff Center (Usually for recycling)

DOT: Department of Transportation

EPA: (United States) Environmental Protection Agency

FY: Fiscal Year; in Loudoun County, the Fiscal Year runs July 1 to June 30.

HCFC: Hydrochlorofluorocarbon

HH: Household

HOA: Homeowners’ Association

HHW: Household Hazardous Waste

LCD: Land Clearing Debris

LCLF: Loudoun County Landfill

LCSWMF: Loudoun County Solid Waste Management Facility

LCSWMPD: Loudoun County Solid Waste Management Planning District

MARC: Maryland Rail Commuter Service

MRF: Materials Recovery Facility

MSW: Municipal Solid Waste

TABLE OF CONTENTS

LOUDOUN COUNTY SOLID WASTE MANAGEMENT PLAN

MWCOG: Metropolitan Washington Council of Governments

NGO: Non-governmental Organization

Ni-Cad: Nickel-Cadmium

NVRC: Northern Virginia Regional Commission

OSWM: (Loudoun County) Office of Solid Waste Management

P2: Pollution Prevention

PAYT: Pay-As-You-Throw

PMSA: Primary Metropolitan Statistical Area; Loudoun County is part of the Washington, DC, Primary Metropolitan Statistical Area

PRM: Principal Recyclable Material as defined by 9 VAC 20-130-10 *et seq.*

RCRA: Resource Conservation and Recovery Act

RMW: Regulated Medical Waste

SRM: Supplemental Recyclable Material as defined by 9 VAC 20-130-10 *et seq.*

SWMF: Solid Waste Management Facility

SWMP: Solid Waste Management Plan

SWMPC: Ad Hoc Solid Waste Management Planning Committee

TS: Transfer Station

TSD: Treatment/Storage/Disposal Facility

UL: Underwriters Laboratories

UOFACMS: (Virginia) Used Oil, Filter, and Antifreeze Consumer Management Study

VAC: Virginia Administrative Code.

VDOT: Virginia Department of Transportation

VW: Vegetative Waste

VWWMF: Vegetative Waste Management Facility

WMX: Waste Management, Inc.

WRSWMF: Woods Road Solid Waste Management Facility

WTE: Waste-to-Energy

WTS: Waste Transfer Station