CITY OF HARRISONBURG

SOLID WASTE MANAGEMENT PLAN

Prepared by
City of Harrisonburg Public Works Department
Sanitation Division

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EXECUTIVE SUMMARY

What is a Solid Waste Management Plan

A solid waste management plan is a document prepared in accordance with State regulation 9 VAC 20-130-10. The plan sets forth solid waste management goals and objectives, and describes the planning and regulatory concepts to be employed by the adopting locality to meet those goals and objectives. The plan must be adopted by the locality and will be used as a guide for future policy decisions concerning solid waste management. The plan must be updated every five years by the adopting region.

Goals and Objectives

The City of Harrisonburg has developed and adopted this solid waste management plan for the following reasons:

1. To protect the health, safety, and welfare of the citizens of Harrisonburg by providing and planning for their present and future solid waste disposal needs.

2. To provide for the efficient and economical disposal of the City's solid waste.

3. To maintain recycling activities in the City of Harrisonburg to comply with current State mandated recycling rates of 25 percent.

4. To continue to develop and integrated approach for the handling and disposal of solid waste.

5. To effectively and efficiently use limited natural resources.

6. To protect the environment from the mismanagement of solid waste.

7. To comply with State Regulations (9 VAC 20-130-10).

8. To develop and improve education and training in environmental programs for schools and general public.

Plan Adoption

This plan was adopted by the City of Harrisonburg on July 23, 1991. The plan was updated and approved on September 9, 1997, June 25, 2002, June 25, 2004, and July 13, 2012.

Summary of Proposed Specific Actions

1. Continue and increase participation by citizens and privately sponsored recycling programs.

2. Categorize incoming waste in more detail to gain a better understanding of the waste stream. This will allow better decisions to be made on how to spend limited funds to meet both local and State goals and objectives.

3. Adopt source reduction, reuse, and recycling reporting legislation.

4. Adopt legislation requiring businesses and residences to sort specified materials in their solid waste and make them available for collection to increase recycling and reduce environmental impact on landfills..

5. Encourage compliance with legislation giving preference to the purchase of paper made from recycled materials by the City.

6. Expand public education programs on composting, e-recycling, and hazardous waste disposal procedures.

7. Maintain and monitor closed City landfill in accordance with State regulations.

8. Refuse will be directed to a permitted disposal site.

9. Promote reuse, reduce and recycling of solid waste to reduce landfill needs.

10. Document all known solid waste disposal facilities within Harrisonburg. The Department of Sanitation will act as the archiving agency.

Summary

Harrisonburg has a comprehensive and integrated waste management plan. Through past planning and efforts Harrisonburg finds itself prepared to meet its solid waste needsfor our City.

Harrisonburg has instituted programs and legislation to aid in the collection of statistical information about its solid waste stream. With this information, Harrisonburg is able to determine the level of recycling occurring. Actual rates of recycling within the City are currently at or above the State mandated levels. Reporting legislation has allowed Harrisonburg to accurately determine the level of recycling activity occurring and determine how best to direct its efforts and limited funds to meet State mandated recycling levels. Some additional categorization of the waste stream will aid Harrisonburg in determining household waste and principal recyclable materials quantities which are used in determining recycling rates. More than 75 percent of Harrisonburg residents are participating in the curbside refuse / recycling program.

DEFINITIONS

Following are the definitions of terms used in this plan.

DISCARDS

Discards refer to the solid waste remaining after recovery for recycling and composting. These discards are landfilled.

MATERIALS RECOVERY FACILITY

A solid waste management facility for the collection, processing, and recovery of material such as metals from solid waste or for the production of a fuel from solid waste. This does not include the production of a waste-derived fuel product.

GENERATION

Generation refers to the amount of materials and products as they enter the waste stream before materials recovery, or composting..

HOUSEHOLD WASTE

Any waste material, including garbage, trash and refuse, derived from households. Households include single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreational areas.

LANDFILLED

Disposed of in a sanitary landfill.

MUNICIPAL SOLID WASTE

Municipal solid waste includes wastes such as durable goods, non-durable goods, containers and packaging, food wastes, yard wastes, and miscellaneous inorganic wastes from residential, commercial, institutional, and industrial sources. Examples of waste from these categories include appliances, newspapers, clothing, food scraps, boxes, disposable tableware, office and classroom paper, wood pallets, and cafeteria wastes. Municipal solid waste does not include wastes from other sources, such as municipal sludges, combustion ash, construction and demolition wastes, and industrial non-hazardous process wastes that might also be disposed of in municipal waste landfills or incinerators.

PRINCIPAL RECYCLABLE MATERIALS

Principal recyclable materials are newspaper, ferrous scrap metal, non-ferrous scrap metal, used motor oil, corrugated cardboard and Kraft paper, container glass, aluminum, high grade office paper, tin cans, cloth, automobile bodies, plastic and clean wood, brush, leaves, grass and other arboreal materials. Large tree stumps are not a principal recyclable material.

RECYCLING

Recycling is the process of separating specific materials from the waste stream and processing them so they can be used again as a raw material in a new product.

REUSE

Reuse involves using a product for the same or a new purpose without the product having to physically change after it has initially been used.

SANITARY LANDFILL

An engineered land burial facility for the disposal of solid waste permitted by the Virginia Department of Environmental Quality.

SOLID WASTE

Solid Waste is any Subtitle D waste as defined by the United States EPA. This includes municipal solid waste, household hazardous waste, municipal sludge, municipal waste combustion ash, industrial non-hazardous waste, small quantity generator waste, construction and demolition waste, agricultural waste, oil and gas waste, and mining waste.

SOURCE REDUCTION

Source reduction is an action that reduces or eliminates the generation of waste at the source.

SUPPLEMENTAL RECYCLABLE MATERIALS

Supplemental recyclable materials are construction rubble, tires, concrete and similar inert materials, batteries, ash, sludge, or large diameter tree trunks, or other materials as may be authorized by the Superintendent of the Department of Solid Waste.

INTRODUCTION

This solid waste management plan has been prepared for and adopted by the City of Harrisonburg, located in Rockingham County, Virginia. A copy of the adopting resolution can be found in the Appendix. Figure 1 shows the location of the City of Harrisonburg in the State of Virginia and Figure 2 shows the City in detail.

The Purpose of a Solid Waste Management Plan.

Providing for the present and future solid waste disposal needs of modern society is a difficult task. As can be seen in Table 1 and Figure 3, municipal solid waste generation in the United States has been steadily increasing for the past 30 years and the EPA predicts that this trend will continue. The increase in municipal solid waste generation has been caused by both increases in population and increases in the amount of solid waste that we generate as individuals. Table 2 and Figure 4 show that per capita municipal solid waste generation has steadily increased from 2.7 pounds per day in 1960 to 4.4 pounds per day in 2000. It is projected that per capita municipal solid waste generation will increase to 5.36 pounds per day in the year 2020.[1]

While communities find themselves needing to dispose of ever increasing amounts of solid waste, additional regulations to protect the environment have been adopted and citizen opposition has grown, leaving many communities with a waste management

crisis. Preparing a solid waste management plan is a solid first step for a community to take to avoid waste disposal crisis.

State regulations, promulgated by the Virginia Waste Management Board, require that all cities, counties, towns; or designated regions, regional planning districts, or public service authorities in the State of Virginia prepare, adopt and submit a solid waste management plan .

Figure 1- CITY LOCATION MAP

City of Harrisonburg, Virginia

Figure 2 - EXISTING AND PROPOSED FACILITIES

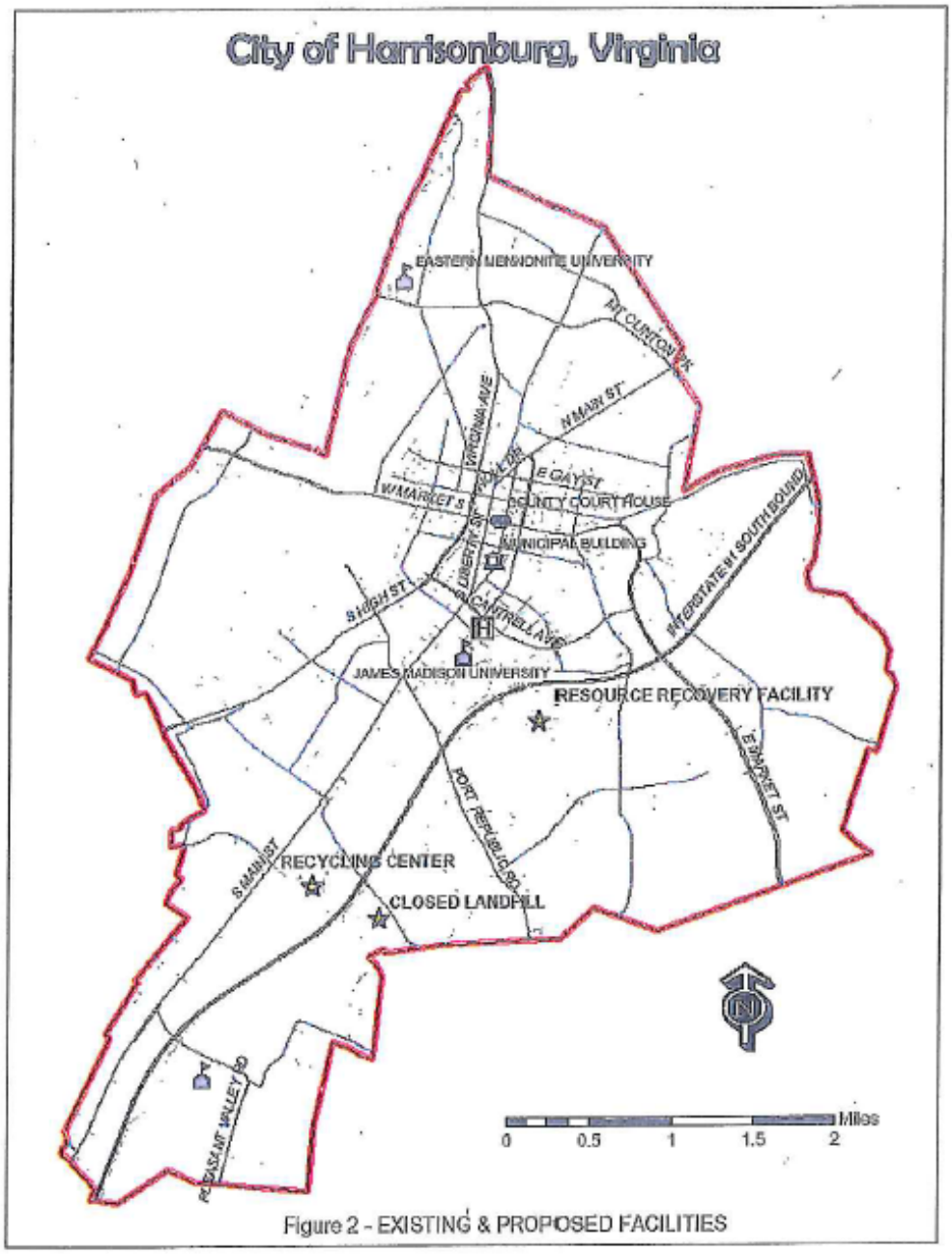


Figure 2 - EXISTING & PROPOSED FACILITIES

Table 1

MATERIALS GENERATION IN THE MUNICIPAL WASTE STREAM, 1960 TO 2025

PER CAPITA BASIS

(All figures are in pounds per day)

MATERIALS GENERATED* IN THE MUNICIPAL WASTE STREAM, 1960 TO 2020

	Millions of Tons						
Materials	1960	1970	1980	1990	2000	2010	2020
Paper and Paperboard	29.99	44.31	55.16	72.73	86.74	103.45	123.38
Glass	6.72	12.74	15.13	13.10	12.77	12.45	12.13
Metals							
Ferrous	10.30	12.36	12.62	12.64	13.46	14.33	15.26
Aluminum	0.34	0.80	1.73	2.81	3.17	3.58	4.03
Other Nonferrous	0.18	0.67	1.16	1.10	1.39	1.76	2.22
Total Metals	*10.82*	*13.83*	*15.51*	*16.55*	*18.02*	*19.62*	*21.36*
Plastics	0.39	2.90	6.83	17.13	24.71	35.64	51.42
Rubber and Leather	1.84	2.97	4.20	5.79	6.37	7.01	7.71
Textiles	1.76	2.04	2.53	5.81	9.38	15.14	24.45
Wood	3.03	3.72	7.01	12.21	12.70	13.21	13.74
Other**	0.01	0.77	2.52	3.19	4.03	5.09	6.43
Total Materials in Products	54.56	83.28	108.89	146.51	174.72	211.66	260.77
Other Wastes							
Food Scraps	12.20	12.80	13.00	20.80	25.90	32.25	40.16
Yard Trimmings	20.00	23.20	27.50	35.00	27.73	21.97	17.41
Miscellaneous Inorganic Wastes	1.30	1.78	2.25	2.90	3.50	4.22	5.10
Total Other Wastes	33.50	37.78	42.75	58.70	57.13	58.44	62.67
Total MSW Generated - Wt.	88.06	121.06	151.64	205.21	231.85	270.10	323.44
	Percent of Total Generation						
Materials	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**	**2020**
Paper and Paperboard	34.00%	36.60%	36.40%	35.40%	37.40%	39.51%	41.75%
Glass	7.60%	10.50%	10.00%	6.40%	5.50%	4.73%	4.06%
Metals							
Ferrous	11.70%	10.20%	8.30%	6.20%	5.80%	5.43%	5.08%
Aluminum	0.40%	0.70%	1.10%	1.40%	1.40%	1.40%	1.40%
Other Nonferrous	0.20%	0.60%	0.80%	0.50%	0.60%	0.72%	0.86%
Total Metals	*12.30%*	*11.40%*	*10.20%*	*8.10%*	*7.80%*	*7.50%*	*7.23%*
Plastics	0.40%	2.40%	4.50%	8.30%	10.70%	13.79%	17.78%
Rubber and Leather	2.10%	2.50%	2.80%	2.80%	2.70%	2.60%	2.51%
Textiles	2.00%	1.70%	1.70%	2.80%	4.00%	5.71%	8.16%
Wood	3.40%	3.10%	4.60%	6.00%	5.50%	5.04%	4.62%
Other**	0.10%	0.60%	1.70%	1.60%	1.70%	1.81%	1.92%
Total Materials in Products	61.90%	68.90%	71.90%	71.40%	75.30%	80.74%	88.14%
Other Wastes							
Food Scraps	13.80%	10.60%	8.60%	10.10%	11.20%	12.42%	13.77%
Yard Trimmings	22.70%	19.20%	18.10%	17.10%	12.00%	8.42%	5.91%
Miscellaneous Inorganic Wastes	1.50%	1.50%	1.50%	1.40%	1.50%	1.61%	1.72%
Total Other Wastes	38.00%	31.30%	28.20%	28.60%	24.70%	22.45%	21.40%
Total MSW Generated - %	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

*Generation before materials recovery or combustion. Does not include construction & demolition debris, industrial process wastes, or certain other wastes. Details may not add to totals due to rounding.

**Includes electrolytes in batteries and fluff pulp, feces, and urine in disposable diapers.

***2010 through 2020 are estimates only and are not EPA figures

The Waste Management Board's stated purpose for requiring a solid waste management plan is to:

1. Establish minimum solid waste management standards and planning requirement for protection of the public health, public safety, the environment, and natural resources throughout the Commonwealth; promote local and regional planning that provides for environmentally sound solid waste management with the most effective and efficient use of available resources.
2. Establish procedures and rules for designation of regional boundaries for solid waste management plans.
3. Establish state, local government and regional responsibility for meeting the minimum recycling rates of ten percent for 1991, fifteen percent by 1993, and twenty-five percent by 1995.
4. Establish procedures for withholding issue of permits to local governments for solid waste management facilities after July 1, 1992 pending approval of a solid waste management plan.
5. Provide for reasonable variance and exemptions.

Waste Management Hierarchy

State regulations outline a waste management hierarchy that all solid waste management plans must consider. The hierarchy was developed to create a framework around which an integrated solid waste plan could be developed. A solid waste management plan should incorporate elements of the hierarchy in a manner consistent with the specific needs and resources of the region for which the plan is being developed. Most solid waste management plans will incorporate several, but not necessarily all, elements of the hierarchy. The waste management hierarchy developed by the Virginia Department of Environmental Quality is:

1. Source Reduction
2. Reuse
3. Recycling
4. Resource Recovery
5. Incineration
6. Landfilling

Elements higher in the hierarchy are more desirable, and tend to reduce the need for lower, less desirable, elements of the hierarchy. Therefore, when developing a solid waste management plan, preference should be given to those elements higher in the hierarchy.

To understand the rationale of the hierarchy, a basic understanding of each element is required. A brief description of each element follows:

Source Reduction:

The EPA's "Solid Waste Dilemma: An Agenda for Action: defines source reduction as "the design, manufacture, and use of products so as to reduce the quantity and toxicity of waste producted when the products reach the end of their useful lives."

Source reduction reduces the amount of waste initially generated rather than using the traditional approach of managing waste after it has been generated.

Reuse:

Reuse involves using a product for the same or a new purpose without the product having to physically change after it is initially used.

Reuse reduces waste generation in two ways. First, when products are reused, they may never enter the waste stream or, at a minimum, they are delayed from entering the waste stream. Second, a reused item usually displaces a new product and fewer new products must be produced. This eliminates the waste associated with the manufacturing of the new, displaced, product.

Recycling:

Recycling is the process of collecting and separating usable materials from the waste stream and then using the collected materials in the manufacture of new products or for new uses which require that the materials be physically changed.

Recycling is the process of collecting and separating usable materials from the waste stream and then using the collected materials in the manufacture of new products or for new uses which require that the materials be physically changed.

Recycling has several benefits. It reduces the need for limited, virgini natural resources. Using recycled materials in the manufacturing of new goods often requires less energy than producting goods from virgin materials. Recycling removes materials from the waste stream that otherwise would be disposed of in landfills occupying limited and valuable space.

Resource Recovery:

Resource recovery involves recovering the energy from solid waste. This can be done by combustion of the solid waste. This can be done by combustion of the solid waste to produce ssteam, heat or electricity; or by processing the solid waste to produce fuel for other energy producing facilities.

Incineration:

Incineration involves the burning of trash for the sole purpose of reducing its volume. The energy potential of the waste is not utilized for constructive proposes.

Landfilling:

Landfilling is the disposal of solid waste on land.

Landfilling of solid waste is currently the major disposal method used in the United States. Approximately 80 percent of the nations solid waste is disposed of in landfills. New regulations, limited existing space, increased waste quantities and community opposition to the siting of new landfills have created a crises situation in many areas of the country.

Landfills, although the lowest element of the waste management hierarchy, are and will continue to be an important and major component of any solid waste management plan.

BACKGROUND INFORMATION

Geographic Setting

The City of Harrisonburg is located near the center of Rockingham County (see Figure l) in the Valley of Virginia with the Blue Ridge Mountains to the east and the Appalachian Mountains to the west. Harrisonburg has a total land area of 17.04 squares miles.

Climate

Harrisonburg has a mean annual temperature of 53.2 degrees F. The winter average temperature is 34 degrees F, the summer average temperature is 72 degrees F. The annual average precipitation is 34.1 inches including average annual snowfall of 27.9 inches. The average frost depth is approximately 24 inches.

Geology

The bedrock in Harrisonburg consists mainly of sedimentary shale, limestone, and dolomite. Four formations underlie Harrisonburg; Martinsburg Shale which is chiefly shale and silty shale with greenish sandstone commonly at top; Edinburg formation which is dark graptolite bearing shale, dense black limestone, and nodular weathering limestone; New Market and Lincolnshire limestone which is dense light gray limestone and dark, medium coarse, cherty limestone; and Beekmantown formation which is thick-bedded, grey, medium-grained dolomite and some blue limestone; much chert.

Soils

The United States Department of Agriculture, Soil Conservation Service, Soil Survey of Rockingham County, Virginia shows three general soils map units underlying Harrisonburg; the Frederick-Lodi-Rock outcrop unit, the Endcav-Carbo-Rock outcrop unit, and the Chilhowie-Edom unit. A brief description, taken from the above mentioned soils survey, of each unit follows.

Frederick-Lodi-Rock Outcrop:

> Deep, gently sloping to steep, well drained soils that have a clayey subsoil and areas of rock outcrop; on uplands underlain by limestone and dolomite bedrock.
>
> These soils are extensive throughout the Great Limestone Valley. The unit occupies about 26 percent of the county. It is about 35 percent Frederick soils, 25 percent Lodi soils, 10 percent rock outcrops, and 30 percent soils of minor extent.
>
> The Frederick and Lodi soils are dominantly gently sloping and sloping. Both soils have a surface layer of silt loam and are closely intermingled on the landscape. The rock outcrops, which consist of limestone or dolomite, are mainly less than 30 feet apart and are dominantly in steep areas.

The minor soils of this unit are well drained Endcav, Shenval, and Timberville Variant soils, moderately well drained Nixa soils and Aquic Udifluvents, and somewhat poorly drained to poorly drained Fluvaquents.

This unit is mainly used and generally suitable for crops and pasture. The steep and rocky areas are in pasture, hay, or woodland. Slope, stones in and on the soils, and the permeability of the soils are the main limitations of the unit.

Endcav-Carbo-Rock Outcrop:

Deep and moderately deep, gently sloping to moderately steep, well drained soils that have a clayey subsoil; on uplands underlain by limestone bedrock.

These soils are in the Great Limestone Valley. The unit occupies about 4 percent of the county. It is about 45 percent Endcav soils, 18 percent Carbo soils, 15 percent limestone rock outcrops, and 22 percent soils of minor extent.

Some of the Endcav soils are rocky. The depth to bedrock is about 60 inches in the Endcav soils and 30 inches in the Carbo soils. The subsoil of both soils has a high shrink-swell potential. The rock outcrops are mainly less than 30 feet apart. Sinkholes are common in this unit.

The minor soils in this unit are well drained Edom, Frederick, Chilhowie, and Timberville Variant soils, moderately well drained to somewhat poorly drained to poorly drained Aquic Udifluvents, and somewhat poorly drained to poorly drained Fluvaquents.

Most areas of this unit are farmed. The wooded areas consist of oak and hickory or eastern red cedar. The areas of rock outcrop, and flooding along drainageways and small streams, the depth to bedrock in the Carbo soils, and the shrink-swell potential are the main limitations of the unit.

Chilhowie-Edom:

Moderately deep to deep, gently sloping to steep, well drained soils that have a clayey subsoil; on uplands underlain by limestone and interbedded shale.

These soils are throughout the main valley section of the county. The unit occupies about 6 percent of the county. It is about 46 percent Chilhowie soils, 39 percent Edom soils, and 15 percent soils of minor extent.

The Chilhowie soils are moderately deep. The generally are on narrow ridge tops and short, steep side slopes. The Edom soils are deep. They are mainly on long, gently rolling to rolling slopes and broad ridge tops. Small rock outcrops are in the areas of the Chilhowie soils.

The minor soils in this unit are well drained Endcav soils, moderately well drained Guernsey soils, and somewhat poorly drained to poorly drained Fluvaquents.

This unit is used mainly for crops and pasture. Most of the steep, rocky, or rough areas are wooded. Slope, rocks on the surface, and the depth to bedrock are the main limitations of the unit.

Land Use

Harrisonburg has a densely developed central core which is surrounded by less developed rural land. Development is generally occurring radially around the densely developed core with the density of development decreasing with distance from the core area.

Harrisonburg has residential, institutional, commercial and light industrial land uses. James Madison University and Eastern Mennonite College are both located in Harrisonburg.

Transportation

Two major transportation arteries intersect in Harrisonburg, Interstate 81 and U.S. Highway 33. These transportation links give Harrisonburg access to other large metropolitan areas of the State. Interstate 81 runs north and south through Virginia and connects with Interstate 64 near Staunton. State Route 33 runs east and west.

One active rail line runs through Harrisonburg, the Norfolk Southern Railway. The railway gives Harrisonburg an alternative to trucking for access to national markets.

Demographics

Final 2010, United States census figures put Harrisonburg's population at 48,914. This represents a 20.9 percent growth rate for Harrisonburg since the last census was taken in 2000 and the population was found to be 40,468. The current estimated population is 52,612. Harrisonburg's Draft Comprehensive plan states that approximately one-third of the population of Harrisonburg is students attending James Madison University.

Table 3 contains the Virginia Employment Commission's (VEC) population projections for Harrisonburg based on a 2012 study performed by the Demographics Research Group. These figures do not account for large expansions in James Madison University's enrollment.

HARRISONBURG POPULATION PROJECTIONS						
YEAR	**2000**	**2005**	**2010**	**2020**	**2030**	**2040**
POPULATION	**40,468**	**42,532**	**48,914**	**57,114**	**65,768**	**75,015**

Table 2 - Population Predictions

The best available information for future population projections is the VEC study. The population projections from the VEC study have been used to estimate the future waste stream in this solid waste management plan.

Responsible Agencies and Organizations

The Department of Public Works, Sanitation Division has the primary responsibility for solid waste collection, processing and planning services in the City of Harrisonburg. Presently the Sanitation Division is responsible for the curbside residential and commercial trash and recycling collection program. The Sanitation Division consists of 21 employees.

In January 1990 Harrisonburg created a Citizen's Advisory Committee on Recycling. This committee was charged with analyzing Harrisonburg's recycling and solid waste needs and making recommendations to the Mayor and City Council. The initial emphasis of this committee was to determine the feasibility of implementing a recycling program. In part, as a result of their recommendations, a City sponsored recycling program has been developed. This program is discussed in detail later in the plan.

Solid waste collection and disposal in the City of Harrisonburg is regulated by Section 6-2 of the City code. A copy of this section of the code can be found in the Appendix of this plan.

Funding

Harrisonburg's solid waste operations are funded from different sources; general revenue funds, municipal solid waste collection and management fees. Funding levels from each source vary from year to year. Harrisonburg intends to finance future solid waste activities using these same funding sources.

Future capital expenditures will be funded from the above mentioned sources, the sale of bonds, and grants as deemed appropriate.

Historical and projected revenues and expenditures for Harrisonburg's Department of Sanitation can be found in Table 4.

	FISCAL YEAR				
	2009 - 2010	2014 – 2015	2015 – 2016	2016 - 2017	2024 - 2025
Sanitation Budget	$11,038,732	$16,361,611	$11,611,937	$8,111,937	$10,545,600

Table 3 - Department of Sanitation Departmental Budget

Solid Waste Generation

TOTAL TONNAGE						
	RRF		(ASH)	LANDFILL[2]		
YEAR	CITY	COUNTY		CITY	COUNTY	TOTAL AREA
2004	19,528	20,671	(13,548)	30,670	72,777	157,194
2005	22,725	24,745	(15,100)	27,997	68,267	158,834
2010	21,438	28,385	(16,377)	20,214	63,882	150,296
2013	11,717	9,529	(12,947)	23,876	84,881	149,124

Note[1] City MSW transported to alternate disposal facility

Note[2] Historical tonnage data from county's landfill scales
**County landfill is owned, managed and operated by Rockingham County

***Resource Recovery Facility(RRF) stopped accepting MSW on June 2014
City collected MSW transported to alternate DEQ approved Disposal facility in 2015

YEAR	TRANSFERRED TO MRF[1]	PRIVATE CITY HAULERS TO LANDFILL[2]	TOTAL CITY
2020[1]	16,100	27,457	43,557
2030[1]	18,676	32,042	50,718

EXISTING FACILITIES AND PROGRAMS

Sanitary Landfills – Owned, managed and operated by approved third Party.
"All in One" Curbside Collection Program – Owned, managed and operated by City of Harrisonburg
Litter Control Program – Owned, managed, and operated by the City of Harrisonburg
Citizen Education Program – Owned, managed, and operated by the City of Harrisonburg
Household Hazardous Waste – Managed and operated by City of Harrisonburg

Sanitary Landfills

There is a single closed landfill in the City of Harrisonburg. This landfill is owned and operated by the City under permit number 59 issued May 1, 1972 by the Virginia Department of Health - Solid Waste Management Division. The landfill consists of 52 acres and is located in the southeast quadrant of the intersection of Interstate 81 and County Route 726. The landfill is entered from Ramblewood Road. The landfill stopped accepting refuse on June 30, 1994.

A closure plan for the city landfill, prepared by Draper Aden Associates and dated December 20, 1990, was submitted to the Department of Environmental Quality for this facility.

The City of Harrisonburg will dispose of its MSW at an approved Sanitary Landfill or approved Materials Recovery Facility. The City currently has an agreement with the Rockingham County Landfill to dispose of its MSW.

Private haulers and city residents who use the facility are charged tipping fees.

A computerized ticket is produced as vehicles are weighed at the landfill scales. Landfill tonnage is calculated using the weights from these tickets.

"All in One" Curbside Collection Program

Harrisonburg operates its own curbside "All in One" MSW and recycling collection program. It collects residential and some commercial MSW and recycling within the City limits. Collection customers can now co-mingle their household waste and recycling into one container and place out for collection. This program will allow the city the opportunity to recycle more items for its citizens then the old program which limited itself to #1 and #2 plastics only, aluminum cans, tin cans, newspapers/magazines, and commercial grade cardboard. The limitation was due to the enormous taxpayer investments necessary for the collection, processing, and sale of the additional recyclables. The investment would only make sense in a large metropolitan city where the volumes of recyclables are abundant. Harrisonburg is partnering with a third party DEQ approved facilities that will accept the City's MSW and process it in order to maximize the recycling rate. Collection schedules for customers will remain the same as the previous program. Harrisonburg does not have the equipment to handle dumpsters which limits the businesses it can serve. The City currently provides "All in One" collection for approximately 8,100 households and 500 small businesses. Twelve City employees use a six truck fleet to collect solid waste and recycling within the City. The City also provides bulk and yard waste pick up bi-weekly for it's collection customers Multifamily dwellings currently utilizing private haulers for MSW and the city's previous curbside recycling collection program, will have the opportunity to continue using the same program or opt out by privatizing with a City of Harrisonburg approved Solid Waste Management Program Plan.

Businesses, industry, and multifamily dwelling units have the option to utilize private haulers for solid waste collection. Private haulers bring their waste to an approved disposal site.

The City does not collect or accept large amounts of construction debris. Construction debris from large projects is collected by private haulers and disposed of in facilities located outside of the City limits.

Harrisonburg intends to continue to provide residential trash and recycling collection. The collection system will be modified as future needs and resources dictate.

Litter Control Programs

To encourage its citizens, civic organizations, and other groups to beautify and maintain public rights-of-way, Harrisonburg adopted the Virginia Department of Transportation's Adopt-a-Highway Program under the title "Adopt-a-Street". As of January 2001 various groups within the City of Harrisonburg have adopted approximately 50 miles of street. Under this program groups assume responsibility for picking up trash and debris from specific roads.

Harrisonburg also has and "Adopt-a-Spot" program. This program is run under Virginia Department of Environmental Quality guidelines. As of January 2015 fifteen spots have been adopted.

Citizen Education Program

To maintain the support of the citizens of Harrisonburg for the above programs and to educate its citizens on how they can help with solid waste management in their community, Harrisonburg has instituted several education programs. The Public Works Department has been set up where citizens can call to ask questions about the new "All in One" solid waste and recycling program. Harrisonburg advertises in local newspapers and on local radio to keep its citizens informed of all of the available programs. Brochures and flyers are left in private businesses, which donate space, to which the public has easy access. Public hearings are held on major facilities and programs before they are instituted to obtain citizen input and support.

In addition to the programs sponsored by Harrisonburg, the Virginia Department of Environmental Quality and the United States Environmental Protection Agency have programs directed at educating people on solid waste management issues. These programs include publications which are widely available, maintaining information hotlines, and sponsoring seminars and conferences.

Harrisonburg is looking into having a promotional video made. The video will be used as an educational aid when making presentations at the various schools, clubs, civic organizations, etc.

Household Hazardous Waste Program

The City of Harrisonburg hosts four (4) household hazardous waste collection days in a calendar year. These events allow Citizens to properly dispose of hazardous material, normally found in the waste stream. Upon collection the City disposes of the hazardous material through an approved 3rd party vendor.

SOLID WASTE MANAGEMENT PLAN

Goals

The City of Harrisonburg has developed and adopted this solid waste management plan for the following reasons:

1. To protect the health, safety, and welfare of the citizens of Harrisonburg by providing and planning for their present and future solid waste disposal needs.
2. To provide for the efficient and economical disposal of the City's solid waste.
3. To increase recycling activities in the City of Harrisonburg to comply with State mandated recycling levels.
4. To minimize the amount of solid waste disposed of in landfill to preserve valuable and limited landfill space.
5. To continue to develop an integrated approach for the handling and disposal of solid waste.
6. To effectively and efficiently use limited natural resources.

7. To protect the environment from the mismanagement of solid waste.
8. To comply with State Regulations (9 VAC 20-130-10).
9. To develop and improve education and training in environmental programs for schools and general public.

Consideration of Hierarchy

State regulations outline a waste management hierarchy that all solid waste management plans must consider. A solid waste management plan should incorporate elements of the hierarchy in a manner consistent with the specific needs and resources of the region for which the plan is being developed. The waste management hierarchy developed by the State is:

1. Source Reduction
2. Reuse
3. Recycling
4. Resource Recovery
5. Incineration
6. Landfilling

Elements higher in the hierarchy are more desirable, and tend to reduce the need for lower, less desirable, elements of the hierarchy. Therefore, when developing a solid waste management plan, preference should be given to those elements higher in the hierarchy.

Harrisonburg has an integrated waste management strategy that has been developed over the past 20 years. In 1971 Harrisonburg and Rockingham County commissioned a study titled "Preliminary Report Solid Waste Collection and Disposal Facilities - City of Harrisonburg and County of Rockingham". This study recommended the construction of a resource recovery facility which began operations in Harrisonburg in 1983. Harrisonburg has existing policies and programs that incorporate five of the six elements of the waste management hierarchy developed by the Virginia Department of Environmental Quality. Harrisonburg plans to continue and adjust its programs to meet the future solid waste needs of the community. A discussion of how current and future programs fit into the hierarchy follows.

Source Reduction:

Many source reduction policies are not feasible at the local level but are best handled at the State or Federal level.[1] Financial incentives and disincentives, broad regulations concerning source reduction, and changes to manufacturing processes are difficult to implement on a local basis. The most effective source reduction activity that can occur at the local level is public education.

Harrisonburg's Department of Public Works, Sanitation Division's public information program is designed to make citizens aware of what they can do to reduce solid waste generation. The program provides information to encourage changes in everyday activities that, if generally adopted, would lead to a reduction in the solid waste stream. Harrisonburg distributes informational pamphlets, answers citizen inquiries about solid waste reduction, and places advertisements

in local newspapers and on local radio stations to keep citizens aware of the programs and services offered.

Harrisonburg plans to continue to make its citizens aware of what they can do to minimize waste generation through various community education programs.

Quantifying the effects of programs aimed at source reduction is difficult, and an attempt has not been made to do so. Harrisonburg has adopted source reduction reporting legislation. This will allow some, but not all, source reduction activities to be documented and help Harrisonburg and the State gauge the effectiveness of programs aimed at source reduction.

Reuse:

Harrisonburg has both active and passive programs directed toward increasing the reuse of materials in the local solid waste stream.

Harrisonburg has studied and developed active reuse programs for the City government's internal operations. The used oil recycling program was the first such "official" program to be instituted. The use of waste paper for notes and scratch pads is an example of an "unofficial" reuse program. Harrisonburg will continue to look for opportunities to reuse solid waste internally.

Passive programs inform citizens and City employees about opportunities for practicing reuse. Harrisonburg uses the same media; pamphlets, newspaper and radio, to disseminate information about reuse that it uses for disseminating information on source reduction. Harrisonburg plans to continue its public education program to promote reuse as a waste management strategy.

In addition to the publicly sponsored programs there are private programs operating in the City. Examples of private reuse programs are supermarkets encouraging customers to reuse paper bags by encouraging customers to bring their own bags for groceries, and second hand stores to which used items such as clothing and furniture can be donated or sold for reuse.

Quantifying the effects of programs aimed at source reduction is difficult, and an attempt has not been made to do so. Harrisonburg has adopted source reduction reporting legislation. (City Code Sec. 6-2-73) This will allow some, but not all, source reduction activities to be documented and help Harrisonburg and the State gauge the effectiveness of programs aimed at source reduction.

Recycling:

As described earlier in the plan, Harrisonburg began a comprehensive curbside recycling program for the residents of the City of October 1990, and a program for the businesses, industries, and institutions of the City in February 1991. The City is now instituting an "All in One" curbside collection program where MSW and recycling can be co-mingled, collected, and transferred to a processing

facility to maximize recycling. In addition to the City's recycling efforts, private recyclers also operate within Harrisonburg.

Harrisonburg is committed to expanding recycling in the City to meet State mandated recycling rates. Harrisonburg met the State mandated rate of 25% by December 31, 1995 for household waste and principal recyclable materials generated by non-household sources with variances allowed under specific circumstances. Harrisonburg will be submitting reports to the Department of Environmental Quality every four years, as required, to document recycling levels.

Harrisonburg has adopted recycling reporting legislation. This legislation will enable most recycling activities to be documented and help Harrisonburg and the State gauge the effectiveness of programs aimed at promoting recycling. At this time, the voluntary cooperation of the business community to report recycling activities and quantities has been relied upon.

Harrisonburg has adopted an ordinance giving preference to the purchase of paper and paper products produced from recycled materials.

Harrisonburg has adopted an ordinance requiring non-residential solid waste generators and companies to submit annual reports quantifying the quantity of waste generated, recycled or managed. This includes solid waste source reduction as well as reuse activities.

Harrisonburg encourages City residents to use the recycling containers as a means of disposal for dry cell batteries. This helps in reducing the amount of household hazardous waste going into the landfill.

Harrisonburg tracks the categories of waste in Table 8 at the County landfill so the quantity of household waste can be accurately determined in future years.

Residential Solid Waste
Commercial Solid Waste**
Construction Debris*
Metal
Skids / Clean Wood
Stumps and Trees*
Clean Brush
Brush and Dirt*
White Goods
Tires*
Leaves / Grass
Other

* Not a principal recyclable materials.
** Percent principal recyclable material to be determined by characterization study.

Table 4 - Proposed Waste Categories

A waste categorization study will be performed to determine the amount of principal recyclable materials present in commercial waste for use in determining recycling rates.

Resource Recovery:

As described earlier in the plan, Harrisonburg operated a 200 tpd resource recovery facility. This facility is an important component of the integrated solid waste management system Harrisonburg had developed to serve its citizens. This facility processes the majority of the solid waste Harrisonburg received, 62 percent by weight. Although source reduction, reuse, and recycling will reduce the amount of solid waste processed at the resource recovery facility, resource recovery was considered to be a major solid waste management tool for Harrisonburg.

The facility had a 20 year design life when it was built in 1983. The facility was rebuilt and expanded to a 200 ton design capacity in the spring of 2004.

Resource recovery (waste to energy) had several benefits over the traditional approach of landfilling solid waste. First as can be seen in Table 5 incineration substantially reduced the amount of solid waste that must be landfilled. At the Harrisonburg facility the weight of the ash to be disposed of was approximately one-third of the weight of the solid waste incinerated. As Harrisonburg's recycling program continued to grow, even greater reductions in ash production should occur as non-combustible recyclable materials such as aluminum cans, tin cans, and bottles were removed from the incoming waste stream. In addition to reducing the weight of the solid waste, the density of the ash was greater than the density of typical landfill solid waste. The density of ash from the Harrisonburg facility was approximately 1400 pounds per cubic yard in comparison to typical in place densities of 1000 pounds per cubic yard for solid waste. Together, weight reduction and increased density left approximately one-quarter of the volume of the original waste to be landfilled. Also, as its name implies, resource recovery recovered the energy potential of the solid waste stream. This reduces the consumption of limited natural resources such as coal, gas, and oil.

Resource recovery and recycling shared many of the same benefits. Both recycling and resource recovery reduced the amount of solid waste which must be landfilled, conserving valuable landfill space. Resource recovery used solid waste to generate energy which conserves other, limited natural resources which would otherwise be consumed. In 1983, Harrisonburg constructed its resource recovery facility at great expense for the benefit of its citizens and the Commonwealth of Virginia as part of an integrated solid waste management plan. Harrisonburg feels it is important and correct that its past efforts be acknowledged and considered under current regulations and reserves the right to request a variance from State mandated recycling rates based on the similar benefits of its resource recovery facility and recycling.

Due to financial impacts; from low cost natural gas, reduction in MSW disposal customers willing to pay Resource Recovery tipping rate, landfills tipping rates

competing for MSW to cover cost of expensive landfill development and operations the Resource Recovery Facility has stopped operations.

Incineration:

Incineration is not part of Harrisonburg's integrated solid waste management plan.
All burning was done at the resource recovery facility.

Landfilling:

Although last in the hierarchy, landfilling is, and will continue to be, an important part of Harrisonburg' integrated solid waste management plan. Approximately 53 percent, by weight, of the solid waste generated in Harrisonburg in 1990 was landfilled (including residual ash from the resource recovery facility). This figure was reduced to 43 percent in 1995.

Harrisonburg's current landfill closed on June 30, 1994 as required under current State regulations. The City will continue to work with approved landfills for its future disposal needs.

Centralized Archive

Harrisonburg's Department of Public Works, Sanitation Division will act as a centralized archive which will document all known solid waste disposal sites within the plan area. The Division of Sanitation had researched, collected and archived this information by July 1, 1993. All new sites shall be recorded with the Sanitation Division.

Plan Milestones

April 1991	Submit Part A application for new landfill. (Completed)
June 1991	Receive Part A approval. (Completed)
July 1, 1991	Submit Solid Waste Management Plan for review by the Department of Environmental Quality. (N/A)
October 1991	Submit Part B application for new landfill. Submit variance request allowing for the operation of the existing landfill until new landfill is permitted.
December 31, 1991	Achieve 10 percent annual recycling rate for household wastes and principal recyclable materials. (Completed)
April 29, 1992	Submit recycling report to Department of Environmental Quality. (Completed)

July 1992	Receive approval of Solid Waste Management Plan by Department of Environmental Quality. (Completed)
October 1992	Receive Part B approval. N/A
April 1993	Close existing landfill (under variance). Begin operations at new landfill.
July 1, 1993	Department of Sanitation is to have all known solid waste disposal sites in plan area located and documented. (Completed)
December 31, 1993	Achieve 15 percent annual recycling rate for household wastes and principal recyclable material. (Completed)
April 30, 1994	Submit recycling report to Department of Environmental Quality. (Completed)
December 31, 1995	Achieve 25 percent annual recycling rate for household wastes and principal recyclable materials. (Completed)
April 29, 1996	Submit recycling report to Department of Environmental Quality. (Completed)
July 1, 1997	Submit updated solid waste management plan.
December 31, 1997	Maintain 25% annual recycling rate for household wastes and principal recyclable materials. Maintain cooperation and agreement with Rockingham County, James Madison University and Harrisonburg Electric Commission.
December 31, 1999	Maintain 25% annual recycling rate for household wastes and principal recyclable materials.
December 31, 2001	Maintain 25% annual recycling rate for household wastes and principal recyclable materials.
July 1, 2002	Submit updated solid waste management plan.
February 2004	RRF Expansion
July 1, 2007	Submit updated solid waste management plan.

July 1, 2012	Updated solid waste management plan.
February 18, 2015	Submitted updated solid waste management plan

Summary of Proposed Specific Actions

1. Continue and increase participation in City and privately sponsored recycling programs.
2. Categorize incoming waste in more detail to gain a better understanding of the waste stream. This will allow better decisions to be made on how to spend limited funds to meet both local and State goals and objectives.
3. Implement source reduction, reuse, and recycling programs.
4. Implement legislation requiring businesses and residences operated for profit to sort specified materials in their solid waste and make them available for collection to increase recycling (i.e. hazardous waste, compostable items, etc.).
5. Implement legislation giving preference to the purchase of paper made from recycled materials by the City.
6. Continue public education programs.
7. Monitor the existing landfill in accordance with State regulations.
8. Maintain agreement with approved MSW Recycling/Disposal facilities
9. Document all known solid waste disposal facilities within Harrisonburg. The Department of Sanitation will act as the archiving agency.

Summary

Harrisonburg has a comprehensive and integrated waste management plan. Through past planning and efforts Harrisonburg finds itself prepared to meet its solid waste needs with only a minimum amount of adjustment required to existing programs.

Though generally well prepared, Harrisonburg has a critical need in the short term, securing a disposal site to process it MSW for the purpose of increasing recycling rate.

Harrisonburg has instituted programs and legislation to aid in the collection of statistical information about its solid waste stream. With this information, Harrisonburg is able to accurately determine the level of recycling occurring. Actual rates of recycling within the City are currently at or above the State mandated levels. Reporting legislation has allowed Harrisonburg to determine how best to direct its efforts and limited funds to meet State mandated recycling levels. Additional categorization of the waste stream will aid Harrisonburg in determining household waste and principal recyclable materials quantities which are used in determining recycling rates.

Approval of the Solid Waste Management Plan requires local advertisement and one public hearing held by City Council.

APPENDIX A

EXISTING RECYCLING CENTERS IN HARRISONBURG

Wise Recycling
925 Pleasant Valley Road
Harrisonburg, Virginia 22801
(540) 434-9790
Materials Accepted: Aluminum

Dave's Recycling*
1181 South High Street
Harrisonburg, Virginia 22801
(540) 434-0836
Materials Accepted: Newspaper Cardboard Office Paper
Plastic Pallets Aluminum Cans

Advance Auto Parts*
2655 South Main Street
Harrisonburg, Virginia 22801
(540) 434-3681
Materials Accepted: Automobile Batteries Used Motor Oil .

Battery Mart
1501 South Main Street
Harrisonburg, Virginia 22801
(540) 434-5155
Materials Accepted: All Types Batteries

Autozone
340 North Mason Street
Harrisonburg, Virginia 22802
(540) 434-4778
Materials Accepted: Automobile Batteries Used Motor Oil

Batteries Plus
262 University Boulevard
Harrisonburg, Virginia 22801
(540) 438-1999
Materials Accepted: All Types Batteries - no liquid acid

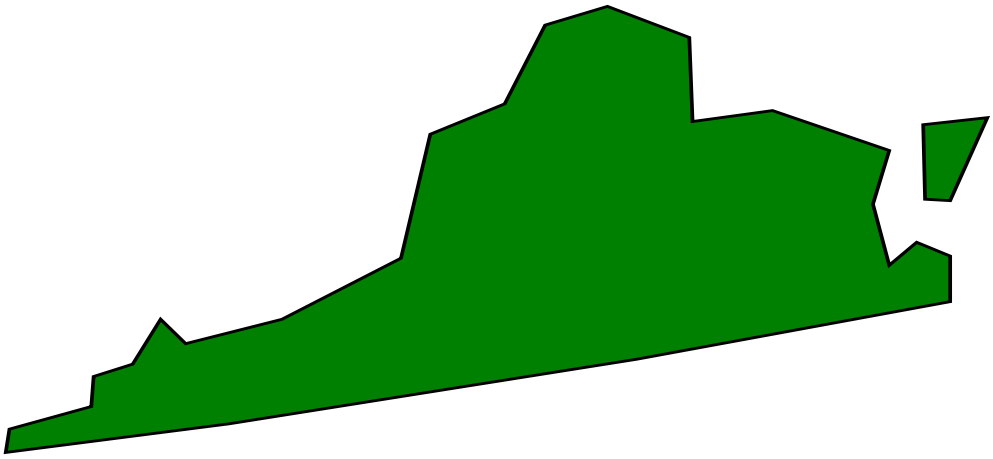
Parts, Inc.
292 North Liberty Street
Harrisonburg, Virginia 22802
(540) 434-9901
Materials Accepted: Automobile Batteries

APPENDIX B

REGULATIONS FOR THE DEVELOPMENT OF SOLID WASTE MANAGEMENT PLANS

Commonwealth of Virginia

Department of Environmental Quality



Regulations

For The Development Of

Solid Waste Management Plans

VAC 20-130-10

As authorized by Title 10.1 & 10.1-1402 of the Code of Virginia, the Virginia Waste Management Board, in accordance with the provisions of Title 9, 9_6.14:4.1.C.5 of the Code of Virginia promulgated the Solid Waste Management Plan Development Regulations.

Public Meetings:	September 18, 1989 (Hampton, Richmond) September 19, 1989 (Abingdon, Manassas, South Boston) September 20, 1989 (Charlottesville, Roanoke)
Public Hearings:	January 8, 1990 (Richmond) January 9, 1990 (Roanoke, Hampton) January 11, 1990 (Manassas)

Promulgated by the Virginia Department of Environmental Quality Board: March 9, 1990

Effective Date: May 15, 1990

Copies may be obtained from:

Department of Environmental Quality
Eleventh Floor, Monroe Building
101 North Fourteenth Street
Richmond, Virginia 23219

This is a version of the final regulations printed prior to the official registration of the regulations with the Registrar of Regulations. There may be slight editorial changes in the regulations as finally published in the Virginia Register.

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PART I.

DEFINITIONS

1.1. **Definitions.**

The following words and terms, when used in these regulations shall have the following meaning, unless the context clearly indicates otherwise:

"Abandoned material" means any material that is:

1. Disposed of;

2. Burned or incinerated; or

3. Accumulated, stored or treated (but not recycled) before or instead of being abandoned by being disposed of, burned or incinerated.

"Agricultural waste" means all solid waste produced from farming operations, or related commercial preparation of farm products for marketing.

"Board" means the Virginia Waste Management Board.

` **"Commercial waste"** means all solid waste generated by establishments engaged in business operations other than manufacturing. This category includes, but is not limited to, solid waste resulting from the operation of stores, markets, office buildings, restaurants and shopping centers.

"**Construction/Demolition/Debris landfill"** means a land burial facility engineered, constructed and operated to contain and isolate construction waste, demolition waste, debris waste, inert waste, or combinations of the above solid wastes.

"Construction waste" means solid waste which is produced or generated during construction of structures. Construction waste consists of lumber, wire, sheet rock, broken brick, shingles, glass, pipe, concrete, and metal and plastics if they are part of the construction material or are empty containers for such materials. Paints, coating, solvents, asbestos, compress gases, liquids or semi-liquids and garbage are not construction wastes.

"Contamination" means the degradation in quality of naturally occurring water, air or soil resulting either directly or indirectly from human activity.

"Debris waste" means stumps, wood, brush, and leaves from land clearing operations.

"Demolition waste" means solid waste product by destruction of structures and their foundations and includes the same materials as construction wastes.

"Department" means the Virginia Department of Waste Management.

"Director" means the Director of the Department of Waste Management.

"Discarded Material" means a material which I

(I). Abandoned material as defined in this part;

` (ii) Recycled material as defined in this part' or

(iii) Considered inherently waste-like.

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste into or on any land or water so that such solid waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters.

"Facility" means solid waste management facility unless the context clearly indicates otherwise.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure as determined by the Paint Filter Liquids Test. Method 9095, U.S. Environmental Protection Agency, Publication SW-846.

"Garbage" mean readily discarded materials composed of animal, vegetable or other organic matter.

"Groundwater" means any water, except capillary moisture or unsaturated zone moisture, beneath the land surface in the zone of saturation or beneath the bed of any stream, lake, reservoir or other body of surface water with the boundaries of this Commonwealth, whatever may be the subsurface geologic structure in which such water stands, flows, or otherwise occurs.

"Hazardous waste: means a "hazardous waste" as defined by the Virginia Hazardous Management Waste Regulation.

"Household waste" means any waste material, including garbage, trash and refuse, derived from households. Households include single and multiple residence, hotels and motels, bunkhouses, range stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas.

"Illegal disposal" means disposal which is contrary to applicable law or regulations.

"Incineration" means the controlled combustion of solid waste for disposal.

"Incinerator" means a facility or device designed for the treatment for volume reduction of solid waste by combustion.

"Industrial waste" means any solid waste generated by manufacturing or industrial process that is not a regulated hazardous waste. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

"Industrial waste landfill" means a solid waste landfill used primarily for the disposal of a specific industrial waste or a waste which is a by-product of a production process.

"Inert waste" means solid waste which is physically, chemically and biologically stable from further degradation and considered to be nonreactive. Inert wastes include rubble, concrete, broken bricks, bricks and blocks.

"Institutional waste" means all solid waste emanating from institutions such as, but not limited to, hospitals, nursing homes, orphanages, and public or private schools. It can include infectious waste from health care facilities and research facilities that must be managed as an infectious waste.

"Integrated waste management plan" means a governmental plan that considers all elements of waste management during generation, collection, transportation, treatment, storage, and disposal and selects the appropriate methods of providing necessary control and services for effective and efficient management of all wastes. An "integrated waste management plan" must provide for source reduction, reuse and recycling within the jurisdiction and the proper funding and management of waste management programs.

"Jurisdiction" means a local governing body; city, county or town; or any independent entity, such as a federal or state agency, which join with local governing bodies to develop a waste management plan.

"Landfill" means a sanitary landfill, an industrial waste landfill, or a construction/ demolition/debris landfill.

"Large diameter tree stems" mean tree stumps too large to be chipped or processed using available technology.

"Litter" means, all waste material disposable packages or containers but not including the wastes of the primary processes of mining, logging, farming, or manufacturing.

"Non-household waste" or "Non-household solid waste" means any solid waste that is not defined as "household waste".

"**Open dump**" means a site on which any solid waste is placed, discharged, deposited, inject, dumped or spilled so as to create a nuisance or so as to pose within the determination of the Director a substantial present or potential hazard to human health or the environment, including the pollution of air, land, surface water or groundwater. For further detail see the Virginia Solid Waste Management Regulations.

"Permit" means the written permission of the Director to own, operate or construct a solid waste management facility

"Person" means an individual, corporation, partnership, association, a government body, a municipal corporation or any other legal entity.

"Principal Recyclable Materials" means newspaper, ferrous scrap metal, non-ferrous scrap metal, used motor oil, corrugated cardboard and Kraft paper, container glass, aluminum, high-grade office paper, tin cans, cloth, automobile bodies, plastic and clean wood, brush, leaves, grass and other arboreal materials. "Principal Recyclable Materials" do not include large diameter tree stumps.

"Recycled material" means a material which is derived from recycling.

"Recycling" means the process of separating a given waste material from the waste stream and processing it so that it is used again as raw material for a product, which may or may not be similar to the original product.

"Refuse" means all solid waste products having the character of solids rather than liquids and which are composed wholly or partially of materials such as garbage, trash, rubbish, litter, residues from clean up of spills or contamination, or other discarded materials.

"Regional boundary" means the boundary defining an area of land that will be a unit for the purpose of developing a waste management plan, and is established in accordance with Part V of these regulations.

"Resource recovery system" means a solid waste management system which provides for collection, separation, recycling and recovery of energy or solid wastes, including disposal of non-recoverable waste residues.

"Reused" means having once been a waste and being:

1. Employed as an ingredient (including use an intermediate) in a process to make a product, excepting those materials possessing distinct components that are recovered as separate end products; or

2. Employed in a particular function or application as an effective substitute for a commercial product or natural resource.

"Rubbish" means combustible or slowly discarded materials which include but are not limited to trees, wood, leaves, trimming from shrubs or trees, printed matter, plastic and paper products, grass, rags and other combustible or slowly putrescrible materials not included under the term "garbage".

"Sanitary landfill" means an engineered land burial facility for the disposal of solid waste which is so located, designed, constructed and operated to contain and isolate the solid waste so that it does not pose a substantial present or potential hazard to human health or the environment.

"Scrap metal" means bits and pieces of metal parts such as bars, rods, wire, or metal pieces that may be combined together with bolts or soldering which are discarded material and can be recycled.

"Site" means all land and structures, other appurtenances , and improvements thereon used for treating, storing, and disposing of solid waste. This term includes adjacent land with the property boundary used for the utility systems such as repair, storage, shipping or processing areas, or other areas incident to the management of solid waste.

(Note: This term includes all sites whether they are planned and managed facilities or open dumps.)

"Sludge" means any solid, semi-solid or liquid waste generated from a municipal commercial or industrial waste water treatment plant, water supply treatment plant, or air pollution control facility.

"Solid waste" means any garbage, refuse, sludge and other discarded material, including solid, liquid, semisolid or contained gaseous material, resulting from industry, commercial, mining and agricultural operations, or community actives but does not include:

1. Solid or dissolved material in domestic sewage.

2. Solid or dissolved material in irrigation return flows or in industrial discharges which are sources subject to a permit form from the State Water Control Board, or

3. Source, special nuclear, or byproduct material as defined by the Federal Atomic Energy Act of 1954, as amended.

As used in these regulations, solid waste does not include hazardous wastes as defined in the Virginia Hazardous Waste Management Regulations.

"Solid waste disposal facility" means a solid waste management facility at which solid waste will remain after closure.

"Solid waste management facility (SWMF") means a site used for planned treating, storing, or disposing of solid waste. A facility may consist of several treatment, storage, or disposal units.

"Source reduction" means 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 separation" means separation of recyclable materials by the generator.

"Special wastes" means solid wastes that are difficult to handle, require special precautions because of hazardous properties or the nature of waste creates waste management problems in normal operations.

"State solid waste management plan ("State Plan or "Plan")" means the document prepared in accordance with sec 4008(a)(1) of the Federal Resource Conservation and Recovery Act of 1976 and which sets forth solid waste management goals and objectives, and describes planning and regulatory concepts to be employed by the Commonwealth.

"Supplemental recyclable materials" means construction rubble, tires, concrete and similar inert materials, batteries, ash sludge or large diameter tree stumps; or as may be authorized by the Director.

"Trash" means combustible and noncombustible discarded materials and is used interchangeable with the term rubbish.

"Transfer station" means any solid waste storage or collection facility at which solid waste is transferred from collection vehicles to haulage vehicles for transportation to a central solid waste management facility for disposal, incineration or resource recovery.

"Used or reused material" means a material which is either:

1. Employed as an ingredient (including use as an intermediate) in a process to make a product, excepting those materials possessing distinct components that are recovered as separate end products; or

2. Employed in a particular function or application as an effective substitute for a commercial products or natural resources.

"Waste exchange" means any system to identify sources of wastes with potential for reuse, recycling or reclamation and to facilitate its acquisition by persons who reuse, recycle or reclaim it, with a provision for maintaining confidentiality of trade secrets.

"Waste to energy facility" means a facility that uses waste to generate usable energy, or treats the waste in order to facilitate its use in the production of usable energy.

PART II.

LEGISLATIVE AUTHORITY AND GENERAL INFORMATION

Sec 2.1 Authority for Regulations.

These regulations are promulgated pursuant to Chapter 14 (Sec. 10.1-1400 et seq.) and Sec 10.1-1411 of the Code of Virginia (1950), as amended, (hereinafter Code) which authorizes the Virginia Waste Management Board to promulgate and enforce such regulations as may be necessary to carry out its duties and powers and the intent of the Virginia Waste Management Act (hereinafter Act) and the federal acts.

Sec. 2.2 Policy.

It is the policy of the Virginia Waste Management Board to require each region designated pursuant to Part V of these regulations, as well as each city, county and town not of such a region, to develop comprehensive and integrated solid waste management plans that, at a minimum, consider all components of the following hierarchy:

1. Source Reduction.
2. Reuse,
3. Recycling
4. Resource Recovery (Waste-to-Energy).
5. Incineration,
6. Landfilling,
7. Plan implementation,

Sec. 2.3 Purpose of Regulations.

The purpose of these regulations is to:

1. Establish minimum solid waste management standards and planning requirements for protection of the public health, public safety, the environment, and natural resources throughout the Commonwealth; promote local and regional planning that provides for environmentally sound solid waste management with the most effective and efficient use of available resources.

2. Establish procedures and rules for designation of regional boundaries for solid waste management plans.

3. Establish state, local government and regional responsibility for meeting the minimum recycling rates of ten percent by 1991, fifteen percent by 1993 and twenty-five percent by 1995.

4. Establish procedure for withholding issue of permits to local governments for solid waste management facilities after July 1, 1992 pending approval of a solid waste management plan.

5. Provide for reasonable various and exemptions.

Sec. 2.4 Administration of Regulations.

The Director of the Virginia Department of Waste Management is authorized and directed to administer and enforce these regulations in accordance with the Virginia Waste Management Act Sec. 10.1-1400 through 10.1-1457 of the Code.

Sec. 2.5 Applicability of Regulations.

A. These regulations apply to all cities, counties, towns; or designated reggaes, regional planning districts or public service authorities. Any county and town within that county may mutually agree to unite for the purpose of solid waste management planning, and upon joint written notification to the Director, shall be deemed to be a single unit for development of a local solid waste management plan.

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B. The plan may (subject to statutory authority) specify that all solid waste must be recycled at the rate established by the plan regardless of the point of origin of the solid waste. from both public and private sources shall be subject to such requirements.

Sec. 2.6 Enforcement and Appeal.

A. All administrative encroachment and appeals taken from actions of the Director relative to the provisions of these regulations shall be governed by the Virginia Administrative Process Act.

B. Orders

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1. The Board is authorized to issue orders to require any person to comply with the provisions of these regulations. Any such order shall be issued only after a hearing with at least thirty days notice to the affected person of the time, place, and purpose thereof. Such an order shall become effective not less than fifteen days after mailing a copy thereof by certified mail to the last known address of such person.

2. The provisions of Sec. W.6 B.1, shall not affect the authority of the Board to issue resources, and the environment from the release or imminent threat of release of waste.

C. After July 1, 1992, no permit for a solid waste management facility shall be issued until the local or regional applicant has a plan approved in accordance with these regulations.

D. Enforcement of these regulations will be in accord with Sec. 10.1-1411 and 1455, Code of Virginia.

Sec. 2.7 Severability.

A. If any provision or part of these regulations is held invalid, unconstitutional or inapplicable to any person or circumstances, such invalidity, unconstitutionality or inapplicability shall not affect or impair the remaining provisions of these regulations and their application.

B. These regulations supersede and replace all previsions regulations of the Department of Waste Management to the extent that those prior regulations conflict with the regulations presented herein. Prior regulations remain in effect where no conflict exists.

C. These regulations shall remain in effect until the Virginia Waste Management Board, in subsequent formal action, shall amend, rescind or otherwise alter them. Such an action will be specific in its detail and cite these regulations by their title. Where there appears to be a conflict with these regulations and regulations adopted at a future date, and such future regulations do not specifically clarify these regulations, these regulations shall be superior.

D. These regulations are completely separate from all federal regulations.

Sec. 2.8 Relationship To Other Bodies Of Regulation.

A. These regulations are general solid waste management regulations that specify minimum standards and planning requirements for solid waste management by regional or local governmental entities of the Commonwealth. If there is a mutually exclusive conflict between the regulations herein and other adopted non-hazardous solid waste management regulations of this agency, the provisions of these regulations are superior. In any detail where there exists no mutually exclusive conflict between these relations and other regulations of the Board, compliance with all regulations is required.

B. Multi-jurisdictional plans developed in fulfillment of the requirements of these regulations must be adopted under authority of the Virginia Area Development Act (Va. Code Ann. Sec. 15.1-1400 through 15.1-1499 (1981 and Cum Supp. 1988), the Virginia Water and Sewer Authorities Act (VA Code Ann Sec. 15,1-1239 through 15.1-1270 (1981 and Cum Supp. 1988) the provisions of the Code of Virginia governing joint exercise of powers by political subdivisions (Va. Code Ann. Sec. 15.1-21 (1981),) or other authority as applicable.

C. If there is a mutually exclusive conflict between these regulations and the Virginia Hazardous Waste Management Regulations, the provisions of the hazardous waste regulations are superior. In any detail where no such mutually exclusive conflict exists, compliance with all regulations is required.

Sec. 2.0 Effective Date of Regulations.

The effective date of these regulations is May 15, 1990.

Part III.

OBJECTIVES AND PERFORMANCE REQUIRED

Sec. 3.1. Schedule For Plan Development.

Every city, county and town in the Commonwealth shall develop a solid waste management plan or amend an existing solid waste management plan and submit them for approval in accordance with these regulations. Existing plans may be amended by addendum of items such as consideration of the waste management hierarchy, the recycling program implementation activities and other requirements of these regulations that are not a part of the existing plan. A local jurisdiction participating in an authorized regional solid waste management plan is not required to develop a separate plan.

A. A complete solid waste management plan in compliance with these regulations shall be provided to the Department of Waste Management no later than July 1, 1991.

B. The Department of Waste Management shall approve or disapprove each plan submitted in accordance with Sec. 3.1 no later than July 1, 1992. If the Department of Waste Management disapproves the plan, it shall cite the reasons for the disapproval and state what required for approval

C.. Each submitted whose solid waste management plan is disapproved under Sec. 3.1 B. Shall submit a corrected solid waste management plan to the Department of Waste Management no later than 90 days following notification of disapproval.

D. Plans approved without alteration shall become effective upon notification. If the Department of Waste Management cannot approve the corrected solid waste management plan because if finds the plans not to be in accordance with these regulations, it will issue a notice of disapproval to the submitted and shall cite the reason for the disapproval and state what is required for approval. The Department will give priority consideration for review of corrected plans where the local or regional body has a pending permit application for a solid waste management facility.

E. On July 1, 1997 and each succeeding five year period thereafter, each city, county, town or region shall submit a report to the Director updating the plan.

Sec. 3.2 Mandatory Plan Objectives.

A. The solid waste management plan shall include:

1. An integrated waste management strategy;

2. Objectives for solid waste management within the jurisdiction;

3. Definition of incremental stages of progress toward the objectives and schedule for their accomplishment:

4. Descriptions of the funding and resources necessary, including consideration of fees dedicated to future facility development; and

5. Strategy for the provision of necessary funds and resources.

6. Strategy for public education and information on recycling.

7. Consideration of public and private sector partnerships and private sector participation in execution of the plan. Existing private sector recycling operations should be incorporated in the plan and the expansion of such operations should be encouraged.

B. The plan shall describe how each of the following minimum goals were or shall be achieved:

1. By December 31, 1991, a recycling rate of ten percent of the total of household wastes and principal recyclable materials that are wastes from non-household sources generated annually in each city, county, town or region.

2. By December 31, 1993, a recycling rate of fifteen percent of the total of household wastes and principal recyclable materials that are wastes from non-household sources generated annually in each city, county, town, or region.

3. By December 31, 1995, a recycling rate of twenty-five percent of the total of household wastes and principal recyclable materials that are wastes from non-household sources generated annually in each city, county, town or region.

C. Calculation methodology shall be included in the plan.

1. The plan shall describe method of calculating the rate of recycling. Three alternative methods of calculation are permitted. These are:

a. Where accurate documentation of the total weight of solid waste received for landfilling, incineration and recycling within the jurisdiction of the plan exists, the percent recycled can be calculated directly as:

Rate = (Recycled/Total) X 100%

Where, "Total" is the weight of the total of household wastes and principal recyclable material as wastes from non-household sources received from within the jurisdiction or exported during the previous 12 months for landfilling, incineration and recycling, and "Recycled" = weight of principal recyclable material received during the previous 12 month for recycling.

b. Where accurate documentation of the total volume of solid waste receive for landfilling, incineration and recycling within the jurisdiction of the plan exists, the percent recycled can be calculated directly as:

Rate = (Recycled/Total) X 100%

Where, "Total;" is the volume of the total of household wastes and principal recyclable materials as wastes from non-household sources received from within the jurisdiction or exported during the previous 12 months for landfilling, incineration and recycling, and "Recycled" = volume of principal recyclable material received during the previous 12 month for recycling.

c. Where accurate documentation of the total waste received for landfilling, incineration and recycling is not available, the most accurate survey or estimate of the per capita weight of the total of household wastes and principal recyclable material as wastes from non-household sources generated within the jurisdiction during the previous 12 months shall be used to calculate the "Total" and the measured weight of principal recyclable material recycled shall be use as "Recycled" in the formula:

Rate = (Recycled/Total) X 100%

2. The amount of supplement recyclable material that is productively used is sold as product substitute or other beneficial products may be added into the)Recycled and "Total" amounts in each calculation method.

3. Any local government or regional solid waste management body that is participating in the used tire management program sponsored by the Department of Waste Management may add the weight of those tires to the "Recycling" and "Total" amounts in the recycling rate calculation.

4. Where a source reduction or reuse of waste is documented to have occurred after the effective date of these regulations, is accurately quantified and is requested as a petition for a variance in accordance with Part VI. , the Director may issue a credit for the amount to be added into the "Recycled" and "Total" amounts in each calculation method. The credit may be for a part of the source reduction or reuse amount if the Director finds that to be more appropriate. The Director shall not grant such a credit where an effective recycling program is not being implemented.

(Note: " Principal Recyclable Materials" means newspaper, ferrous scrap metal, non-ferrous scrap metal, used motor oil, corrugated cardboard and Kraft paper, container glass, aluminum, high-grade office paper, tin cans, cloth, automobile bodies, plastic and clean wood, brush, leaves, grass and other arboreal materials, "Principal Recyclable Materials" do not include large diameter tree stumps. "Supplemental recyclable material" means construction rubble, tires, concrete and similar inert materials, batteries, ash sludge or large diameter tree stumps; or as may be authorized by the Director.)

D. A report on progress in attaining the recycling goals established in Sec. 3.2 shall be submitted to the Department Waste Management within 120 days of the date prescribed in that section. The Department will prepare a statewide summary progress report based on the date submitted.

E. By July 1, 1993, all know solid waste disposal sites, closed and active, within the area of the solid waste management plan shall be documented and recorded at a centralized archive authorized to receive and record information. Thereafter, all new sites shall be recorded at the same central date source.

F. By July 1, 1993, a method shall be developed to monitor the amount of solid waste of each type produced within the area of the solid waste management plan and to record the annual production by solid waste types at a centralized archive. Waste types include but are not limited to broad classes such as residential, commercial and industrial, and the major categories of
principal and supplemental recyclable materials.

Sec. 3.3 Public Participation.

A. Prior to submission of a solid waste management plan to the Department of Waste Management, the submitted shall publish a notice and hold a public hearing on the plan in accordance with the procedures of the local government or regional planning agency. A record of the hearing and all written comments shall be submitted with the plan.

B. Plan developers should provide for extensive participation by the public through the use of citizen advisory committees and public meetings during the development of the plan.

PART IV.

WASTE MANAGEMENT PLAN CONTENTS

Sec. 4.1 General.

Every solid waste management plan shall:

1. Include consideration of the hierarchy defined in Sec. 2.2 giving preference to alternatives in the following order of priority: source reduction; reuse; recycling' resource recovery; incineration; landfilling.

2. Clearly and explicitly demonstrate the manner in which the goals of the mandatory objectives defined in Sec. 3.2 of these regulations shall be accomplished.

3. Include, when developed locally, a copy of the local governing body's resolution adopting the plan.

4. Include, when developed regionally, a copy of the resolution approving the plan adopted in accordance with the Virginia Area Development Act *Va. Code Ann Sec 15.1-1400 through 15.1-1499 (1981) 81d Cum Supp. 1988), the Virginia Water and Sewer Authorities Act (Va. Code Ann Sec. 15.1-1239 through 15.1-1270 (1981 and Cum Supp. 1988), the provisions of the Code of Virginia governing joint exercise of powers by political subdivisions (Va. Code Ann. Sec. 15.1-21 (1981), or other authority as applicable.

Sec. 4.2 Incorporated Data.

The local government or regional solid waste management plan shall include data and analyses of the following type for each jurisdiction:

1. Demographic information and projections over twenty years of population growth and development patterns.

2. Urban concentrations, geographic conditions, markets, transportation conditions, and related factors.

3. Estimates of solid waste generation from households, commercial institutions, industries and other types of sources, including the amounts reused, recycled, recovered as a resource, incinerated and landfilled. Estimates should be identify special waste to include, at least the following: stumps, land-clearing debris and construction wastes, motor vehicles tires, waste oil batteries, sludges, mining wastes, ash, white goods, septage, agriculture wastes and spill residues.

4. A listing of existing and planned solid waste collection, storage, treatment, transportation, disposal and other management facilities, their projected capacities and systems for their use.

5. All milestones in the implementation of the solid waste management plan over the twenty year projection and the parties responsible for each milestone.

6. A description of programs for solid waste reduction, recycling, reuse, storage, treatment, disposal and littler control.

7. A description of outreach programs for waste exchange, public education and public participation.

8. The procedures for and results of evaluating solid waste collection; including transfer stations, transportation and method of collection coordination.

Sec. 4.3. Assessment of solid waste Management needs.

The solid waste management plan shall assess all current and predictable needs for solid waste management for a period of twenty years and describe the action to be taken to meet those needs.

Sec. 4.4 Assessment of Alternatives.

The solid waste management plan shall consider, at least, the following factors:

1. Fulfillment of the mandatory objectives of Sec. 3.2. of these regulations.

2. Consideration of the hierarchy of Sec. 2.2 . of these regulations.

3. Environmental compatibility.

4. Economic growth and development.

5. Solid waste collection.

AUTHORIZING OF REGIONAL BOUNDARIES

Sec. 5.1. Designation of Regions.

The Director has been authorized by the Governor to designate regional boundaries defining areas and jurisdictions to be considered for joint development of solid waste management plans. Only those regions meeting the standards established in this part, Part V, will be considered. Any group of jurisdictions may petition the Director for designation as a region; and, if the proposed region meets the standards established for designation, the Director shall approve the request.

Sec. 5.2 Development of Designated Regions.

A. At least fourteen days prior to designating a regional boundary for solid waste management planning, the Director shall place a notice of the proposed regional boundary and an opportunity to comment in the Virginia Register and a newspaper of general circulation within the proposed region.

B. If, as result of the notices required by Sec. 5.2, The Director feels a significant need exists to hold a public hearing on the issues; a hearing shall be held on the proposed region prior to the designation. At least fourteen days prior to the hearing, a notice of the proposed hearing shall appear in the same publications as the notice under Sec. 5.2 A,

Sec. 5.3. Considerations in Designating a Regional Boundary.

A. The following shall be considered in designating regional boundaries:

1. Geographic areas or jurisdictions which have a history of cooperating to solve problems in environmental or other related matters,

2. Existing regional management systems, authorities or similar institutions,

3. The size, configuration and location of the regional areas should have sufficient solid waste contribution and market availability to support the solid waste management system.

4. Solid waste types within areas and mutuality of solid waste management interests,

5. Geologic, hydrologic, soil and ground water conditions: availability of land and soils; and natural barriers and ecosystems, and

6. Existing planning areas established for purposes other than solid waste management including the existence of informational data bases containing are related to that needed for solid waste management planning.

B. Areas included within a planning boundary may be local or regional.

l. A local area may include a city, town or county and any towns within the county that through mutual agreement join with the county for the purpose of developing a plan

2. A regional area may include;

(a) The jurisdictions with existing regional planning district boundaries,

(b) Any combination of local governments formally joined to form a region or service authority, or

(c) Existing waste management or public service authorities.

Sec. 5.4. Criteria for Designating A Regional Planning Agency.

A. The Director may authorize an official committee or public body as authorized to develop, adopt and promulgate the solid waste management plan.

B. Prospective regional planning agencies shall;

1. Have demonstrated ability to plan, manage or operate solid waste management services; or

2. Have completed planning that resulted in successful implementation of solid waste management facilities or services.

C. An entity designated as responsible for developing a regional solid waste management plan shall:

1. Be an organization which represents the executive boards of jurisdictions within the region.

2. Have planning authority for the regional area,

3. Be capable of readily starting the plan development work tasks,

4. Have an established methodology for resolving conflicts, making planning decisions and providing public participation in the development of the plan,

5. Have experience in environmental planning and have a staff experienced in the work tasks involved in such planning.

6. Have established a methodology and authority sufficient to implement the plan once it is complete and approved, and

7. Have access to informational resources with the region.

Sec. 5.5. Amendment Of Regional Boundary.

The Director may amend a regional boundary based on an application from the governing body or bodies of the region.

PART VI.

RULEMAKING PETITIONS AND PROCEDURES

Sec. 6.1 General.

Any person affected by these regulations may petition the Director to grant a variance or any exemption from any requirement of these regulations, subject to the provisions of this part. Any petition submitted to the Director is also subject to the provisions of the Virginia Administrative Process Act (Virginia Code Ann., Sec. 9-7. 14:1 to 14:25.

Sec. 6.2 Administrative Procedures.

A. General Petitioning Requirements. The petition shall be submitted to the Director by certified mail and shall include;

1. The petitioner's name and arrests:

2. A statement of petitioner's interest in the proposed action;

3. A description of desired action and a citation of the regulation from which a variance is requested:

4. A description of need and justification for the proposed action, including impacts from existing operations and market conditions (If, based on the evidence submitted in a petition, the Director determines that market conditions within a county, city, town or region make unreasonable the mandatory recycling rates specified in these regulations and that the market conditions are beyond the control of the county, city, town or region; a variance from those rates may be issued.);

5. The duration of the variance, if applicable;

6. The potential impact of the variance on public health or the environment;

7. Other information believed by the appliance to be pertinent; and

8. The following statement signed by the petitioner or authorized representative:

> "I certify that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of find and imprisonment."

B. Petition Processing.

1. After receiving a petition that includes the information required in Sec. 6.2.A., the Director will determine whether the information received is sufficient to render the decision. If the information is deemed insufficient, the Director will specify additional information needed and request that it be furnished.

2. The petitioner may submit the additional information requested, or may attempt to show that no reasonable basis exists for additional information. If the Director agrees that no reasonable basis exists for the request for additional information, he will act in accordance with Sec. 6.2.B.3. If the Director continues to believe that a reasonable basis exists to require the submission of such information, he will proceed with the denial action in accordance with the Virginia Administrative Act (VAPA).

3. After the petition is deemed complete:

a The Director will make a tentative decision to grant or deny the petition.

b. Where the petition is tentatively denied, the Director will offer the petitioner the opportunity to withdraw the petition, submit additional , or request the opportunity to withdraw the petition, submit additional information, or request the Director to proceed with the evaluation.

c: Unless the petition is withdrawn , the Director will issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the locality where the applicant is located. The Director will accept comment on the tentative decision for 30 days after publication of public notice.

d. Upon a written request of any interested person, the Director may, at his discretion, hold an informal fact-finding meeting described in Article 3, Virginia Administrative Process Act. A person requesting a hearing shall state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The Director may in any case decide on his own motion to
hold such a meeting.

e. After evaluating all public comments the Director will:

(1) within 15 days after the expiration of the comment period, notify the applicant of the final decision: and

(2) publish it in a newspaper having circulation in the locality.

C. Petition Resolution.

1. In the case of a denial, the petitioner has a right to request of the Director a formal hearing to challenge the rejection.

2. If the Director grants a variance request, the notice to the petitioner shall provide that the variance may be terminated upon a finding by the Director that the petitioner has failed to comply with any variance requirements.

APPENDIX C

GUIDE TO ADOPTION OF LOCAL GOVERNMENT SOLID WASTE MANAGEMENT ORDINANCES

C-1

MODEL ORDINANCE

Section 15.1-11.5 (Amended).

SEPARATION OF SOLID WASTE

A. Purpose:

The general purpose of this ordinance is the furtherance of effective solid waste management and the recycling of solid waste as provided for in Sec. 10.1-1411, Code of Virginia, and as authorized by Sec. 15.1-11.5.

B. Definitions:

Solid Waste: means any garbage, refuse, sludge and other discarded material, including solid, liquid, semi-solid or contained gaseous material, resulting from industrial, commercial, residential, mining and agricultural operations, or community activities but does not include: (1) solid or dissolved material in domestic sewage, (2) solid or dissolved material in irrigation return flows or in industrial discharges which are sources subject to a permit from the State Water Control or (3) source, special nuclear, or by-product material as defined by the Federal Atomic Energy Act of 1954, as amended.

Recycling: means the process of separating a given waste material from the waste stream and processing it so that it is used again as a raw material for a product, which may or may not be similar to the original product.

C. Requirement:

All residences and businesses operated for profit shall separate and make available for collection and recycling such categories of waste as will be designated by (the local governing body). The means by which this requirement will be implemented shall be prescribed by (the local governing body).

(Insert Implementation Scenarios)

D. This ordinance shall not affect the right of any person to sell or otherwise dispose of waste material as provided in Va. Code Sec. 15.1-29.03 or permitted under any other law of the Commonwealth

E. This ordinance shall not impose any liability upon any apartment or commercial office building owner or manager for failure of tenants to comply with any provisions of the ordinance adopted pursuant to this section or upon any waste hauled for failure of its customers to comply with such ordinance.

F. Violation of any provision of this ordinance shall result in a fine of not more than _____ Dollars ($ _____).

G. Any tractor truck semi-trailer combination with five or more axles transporting solid waste to any landfill located within (local government) shall be subject to inspection at such facility by representatives of (local government) to ensure the separation of solid waste in accordance with applicable state laws and regulations and this ordinance.

H. There shall be a rebuttal presumption that solid waste transported from any jurisdiction which has comparable requirements for waste recycling is in compliance with this local ordinance, and therefore may be accepted for disposal at solid waste management facilities within this jurisdiction.

I. Disposal of the categories of waste designated for collection and recycling by the (local government) pursuant to paragraph C above shall be prohibited at any solid waste management facility within this jurisdiction, subject to the exception set forth in paragraph H of this chapter.

MODEL ORDINANCE

Section 15.1-11.5.1 (Amended).

PROHIBITION OF PLACEMENT OF LEAVES OR GRASS CLIPPINGS IN LANDFILL

A. Purpose:

The purpose of this ordinance is the furtherance of solid waste management and the recycling of solid waste, as provided for in Sec. 10-1-1411 of the Code of Virginia and authorized by Sec. 15.1-11.5.1.

B. The disposal of leaves or grass clippings in any landfill with (local government) is hereby prohibited.

C. Nothing herein shall be construed in a manner so as to impose liability upon anyone other than the initial generator of such leaves or grass clippings.

D. Violation of any provision of this section shall constitute a class Misdemeanor punishable by a fine of not more than_____ Dollars ($ _____).

* This ordinance may not become effective until January 1,1995, and until such time as the local government has implemented a composting program capable of handling all leaves and grass clippings generated within the jurisdiction.

MODEL ORDINANCE

Section 15.1-11.5:01 (Amended).

PREFERENCE FOR THE PURCHASE OF RECYCLED PAPER AND PAPER PRODUCTS

A. Purpose: The purpose of this ordinance is the promotion of governmental utilization of recycled paper and paper products as provided for in Sec. 11047.2 and Sec. 15.1-11.5.01 of the Code of Virginia.

B. Definitions:

Recycled Paper and Paper Products: means any paper and paper products meeting the EPA Recommended Content Standards as defined in 40 C. F. R. Part 250.

C. In determining the award of any contract for paper or paper products to be purchased for use by any division, department, or agency of (local government), the purchasing agent for (local) government) shall use competitive sealed bidding and shall award the contract to the lowest responsible bidder offering recycled paper or paper products of a quality suitable for the purpose intended, so long as the bid price is not more than ten percent (10%) greater than the bid price of the low responsive and responsible bidder offering a product that does not qualify under subsection C of this ordinance.

MODEL ORDINANCE

Section 15.1-11.5:2 (Amended).

SOLID WASTE RECYCLING REPORT

A. Purpose: The purpose of this ordinance is the furtherance of solid waste management and the recycling of solid waste as provided for in Code of Virginia Sec. 10.1-1411: as authorized by Sec. 15.1-11.5:2.

B. Definitions:

Generators: means any entity whose act or process produces solid waste as defined herein.

Manage: to collect, store, treat, transport and dispose of solid waste as defined herein.

Reused: means once having been a waste and being:

(1) Employed as an ingredient (including use as an intermediate) in a process to make a product, excepting those materials possessing distinct components that are recovered as separate end products; or

(2) Employed in a particular function or application as an effective substitute for a commercial product or natural resources.

Recycling: means the process of separating a given waste material from the waste stream and processing it so that it is used again as a raw material for a product, which may or may not be similar to the original product.

Solid Waste: means any garbage, refuse, sludge and other discarded material, including solid, liquid, semi-solid or contained gaseous material, resulting from industrial, commercial, residential, mining and agricultural operations, or community activities but does not include: (1) solid or dissolved material in domestic sewage, (2) solid or dissolved material in irrigation return flows or in industrial discharges which are sources subject to a permit from the State Water Control Board, or (3) source, special nuclear, or by-product material as defined by the Federal Atomic Energy Act of 1954, as amended.

Source Reduction: means any action that reduces or eliminates the generation of waste at the source, usually within a process. Source reduction measures include among others, process modification, feedstock substitutions, improvements in feedstock purity, improvements in housekeeping and management practices, increases in the efficiency of machinery, and recycling within a process.

C. All non-residential solid waste generators and companies that manage solid waste or recycle materials generated within (local government) shall submit an annual report to (local government).

D. Each annual report required to be submitted hereunder shall include the following information with respect to the reporting party for the period covered by the report;

(1) The name and address of the reporting party.

(2) The total quantity of solid waste: (a) generated, (b) managed and (c) recycled by the reporting party during the reporting period.

(3) The total quantity or volume of solid waste that has been the subject of source reduction or reuse as defined herein.

E. Any report required under this section shall be based on actual volume or weight. Where actual volume or weight may be reported using carefully estimated data. Any such report shall include a description of the basis for the reported data.

F. Nothing hereunder shall be construed to require any party to report information of a proprietary nature. Where any party fails to report any information otherwise required hereunder based upon a determination that such information is of a proprietary nature, the party shall specify in its report the nature of the information withheld and the basis for its determination that such information is of a proprietary nature.

G. Recycled solid waste included in the report shall include only those solid wastes generated within (local government).

MODEL ORDINANCE

Section 58.1-3661 (Amended).

TAX EXEMPTION

A. Purpose: The purpose of this ordinance is the furtherance of effective solid waste management and the recycling of solid waste, as provided for in Va. Code Sec. 10.1-1411 and as authorized by Va. Code Sec. 58.1-3661.

B. Definitions:

Certified recycling equipment, facilities, or devices: means machinery and equipment which is certified by the Department of Waste Management as integral to the recycling process and for use primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth, and used in manufacturing facilities or plant units which manufacture, process, compound, or produce for sale recyclable items of tangible personal property at fixed locations in the Commonwealth.

C. Certified recycling equipment is hereby exempt (partially exempt) from local taxation in the manner set forth in paragraph D below.

D. Any individual, business, or organization, seeking exemption from local taxation for certified recycling equipment, facilities, or devices may make application to the Department of Waste Management ("Department") in the manner as provided by the Department. If, after examination of the application, the Department determines that the equipment, facility or device is integral to the recycling process and for use primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth, the Department shall approve and certify the application and shall forthwith transmit the application to the local assessing officer. If, after examination of the application, the local assessing officer determines that the equipment, facility or device is used in manufacturing facilities or plant units which manufacture, process, compound, or

produce for sale recyclable items of tangible personal property at fixed approve the application and shall proceed to determine the value of the certified recycling equipment, facilities, or device.

E. Any person aggrieved by a decision of the Department may seek, review and appeal of such decision pursuant to the Virginia Administrative Process Act. Any person aggrieved by a decision of a local assessing officer may seek review and appeal of such decision pursuant to the Code of Virginia and the Code of (local government).

F. The exemption provided by this section shall be determined by applying the local tax rate to the value of the equipment, facilities or devices and subtracting such value, wholly or partially, from the total real property tax due on the real property to which such equipment, facilities, or device are attached.

G. This exemption shall be effective beginning in the next succeeding tax year following certification, and shall be permitted for a term of not less than five years. In the event the locally assesses real estate pursuant to Sec. 58.1-3292, the exemption shall be first effective when such real estate is first assessed, but not prior to the date of such application for exemption.

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