

CHAPTER TWO: POPULATION, EMPLOYMENT, AND LAND USE

This chapter describes Montgomery County, its population, employment, and land-use practices. These factors give information for projecting solid waste quantities and planning the future needs of the solid waste system. Trends in population, consumption, and employment are indicative of the amount and the composition of waste generated. Land use practices and conditions influence solid waste planning and may place constraints on the location of solid waste facilities. This chapter is organized as follows:

- 2.1 Population trends
- 2.2 Municipalities and subsidiary plans
- 2.3 Employment trends and federal facilities within the County
- 2.4 Comprehensive land use plan
- 2.5 Zoning requirements related to solid waste management activities

Appendix A defines acronyms and solid waste terms used in this chapter and throughout this document.

2.1 Population Trends

After 2010, Montgomery County entered a slower growth phase (less than 1%) typical of populous, more developed counties responding to less land available for development and the lack of the transportation capacity needed to sustain rapid growth¹. The County's population growth was driven primarily by births to residents and increasing international migration. During this period, net gains in domestic migration (more people from other parts of the United States moved into Montgomery County than residents moved out) contributed to increased population for the first time.

Montgomery County has seen the largest population gains in various jurisdictions in numeric terms among the Metropolitan Statistical Area (MSA)². Montgomery County is the

¹ Montgomery County Trends: A Look at People, Housing, Jobs Since 1999. January 2019.

² Comprehensive Economic Strategy (CES), 2016

largest County in Maryland. It has retained its status as the second-largest County in the Washington, D.C. region and the 42nd largest County in the United States. Over the next 30 years, no other jurisdiction in the Washington, D.C. region is expected to break the one-million population mark¹.

The most recent growth forecasts are contained in the Round 9.1 Cooperative Forecasts, prepared by Montgomery County's Planning Department, The Maryland-National Capital Park Planning Commission (M-NCPPC). M-NCPPC projections shown in Table 2.1 suggest a slow growth population averaging approximately 0.7 percent per year for the planning period 2020-2029.

Table 2.1 Population Projections of Montgomery County, Maryland 2019-2029

Year	Estimated County Population
2019	1,044,900
2020	1,052,300
2021	1,059,300
2022	1,066,300
2023	1,073,300
2024	1,080,300
2025	1,087,300
2026	1,095,600
2027	1,103,900
2028	1,112,200
2029	1,120,500

Source: M-NCPPC, Cooperative Forecast, Round 9.1, five-year increments 2020, 2025, and 2030. Intermediate years were interpolated. Years are calendar years.

A total increase of 40,940 households is expected to occur between 2017 and 2030. (Table 2.2). The areas with the largest number of household increases (Figure 2.1) are White Flint (6,062), Clarksburg (4,549), Silver Spring (4,351), and Bethesda (3,072). The three areas with high percent increments of households are Shady Grove (204 percent), White Flint (157 percent), and Twinbrook (139 percent).

Table 2.2 Household Growth Montgomery County, Maryland 2017-2030

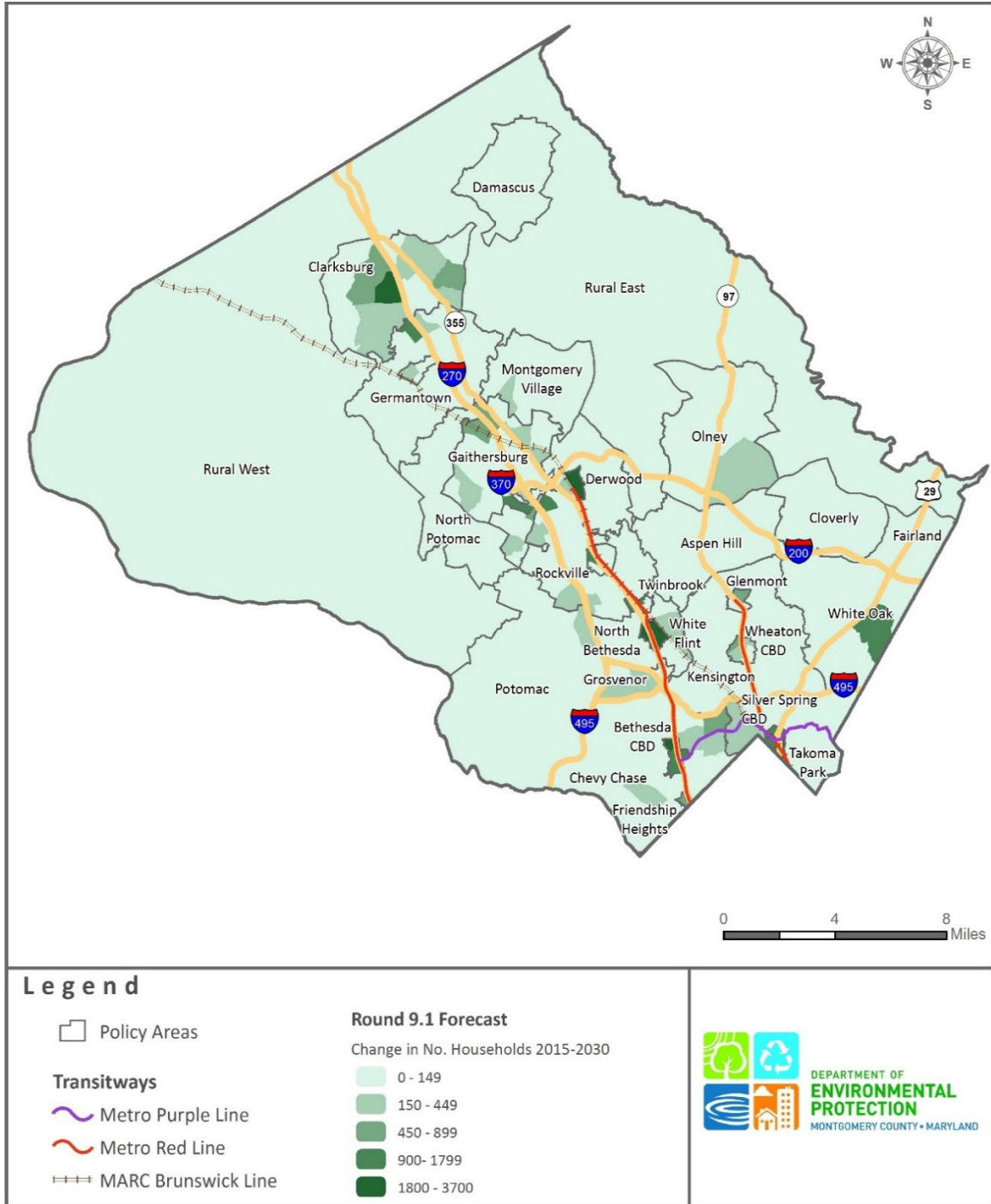
Policy Area	Households		Households Growth	
	2017	2030	Change	% Change
White Flint	3,853	9,915	6,062	157%
Clarksburg	7,163	11,712	4,549	64%
Silver Spring CBD	9,416	13,767	4,351	46%
Bethesda CBD	8,246	11,318	3,072	37%
Rockville City	21,934	24,423	2,489	11%
Gaithersburg City	25,498	27,938	2,440	10%
Shady Grove Metro Station	1,031	3,139	2,108	204%
Twinbrook	1,495	3,579	2,084	139%
R&D Village	4,949	6,842	1,894	38%
White Oak	7,183	8,695	1,512	21%
Rockville Town Center	3,397	4,723	1,326	39%
Bethesda/Chevy Chase	28,806	30,090	1,285	4%
Silver Spring/Takoma Park	29,181	30,324	1,143	4%
Germantown West	21,860	23,002	1,142	5%
North Bethesda	15,006	15,835	829	6%
Wheaton CBD	3,805	4,613	807	21%
Glenmont	1,173	1,890	717	61%
Montgomery Village/Airpark	18,560	19,158	598	3%
Friendship Heights	4,084	4,628	544	13%
Olney	11,562	11,887	325	3%
Rural East	11,417	11,742	325	3%
Potomac	17,297	17,610	313	2%
Germantown East	8,480	8,758	278	3%
Rural West	7,249	7,510	261	4%
Germantown Town Center	1,542	1,742	200	13%
Fairland/Colesville	21,746	21,819	72	0%
Cloverly	5,243	5,295	52	1%
Kensington/Wheaton	34,033	34,083	50	0%
Grosvenor	3,075	3,119	44	1%
Damascus	3,913	3,938	25	1%
North Potomac	8,966	8,989	23	0%
Aspen Hill	24,430	24,444	15	0%
Derwood	5,775	5,779	4	0%
Grand Total	381,368	422,308	40,940	

*Policy area sums might not match countywide totals due to rounding.

Forecasts are prepared as part of the Cooperative Forecasting Process of the Metropolitan Washington Council of Governments (www.mwccog.org). Projections for areas within the Cities of Gaithersburg and Rockville are based on the forecasts prepared by each City under the Cooperative Forecasting Process

SOURCE: Research & Special Projects Division, Montgomery County Planning Department, *Round 9.1 Cooperative Forecast*

Figure 2.1 Household Growth Projection for 2030 in Montgomery County



2.2 Municipalities

Figure 2.2 depicts a map of Montgomery County and the location of its 19 incorporated areas. Approximately 174,758 residents reside within these incorporated municipalities. Table 2.3 lists municipalities in Montgomery County and their populations. The municipalities do not have separate solid waste plans. Chapter 3 describes their solid waste management practices.

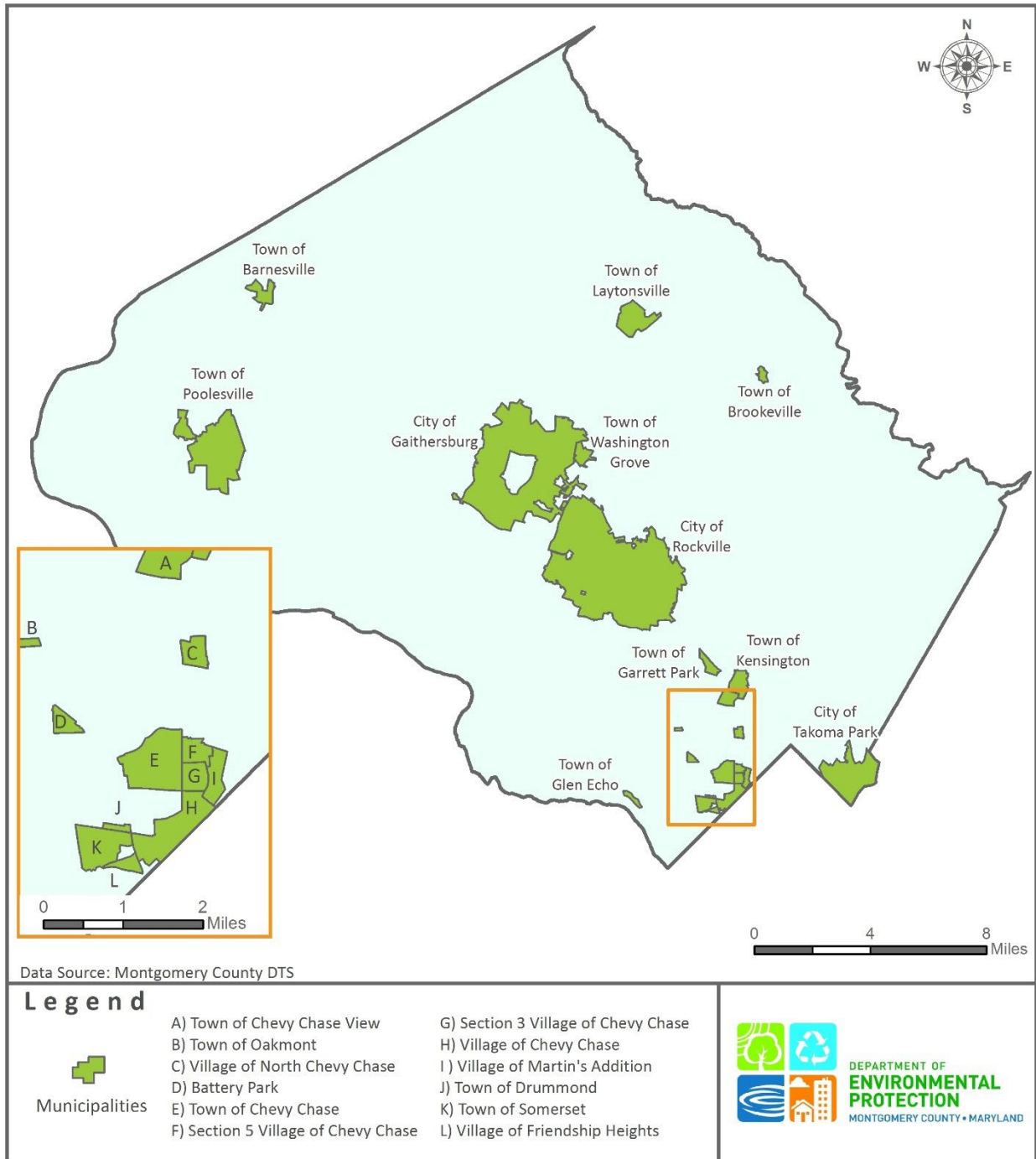
Title 26.03.03.02B of COMAR requires that "*each County plan shall include all or part of the subsidiary plans of the towns, municipal corporations, sanitary districts, privately owned facilities, and local, state and federal agencies having existing, planned or programmed development with the County to the extent that these inclusions shall promote public health, safety, and welfare.*" The County has received no subsidiary solid waste management plans for inclusion in this Plan.

Table 2.3 Population Estimates of Incorporated Municipalities in Montgomery County

Incorporated Municipality	Population
Barnesville town	180
Brookeville town	144
Chevy Chase town	2,992
Chevy Chase Section Five village	711
Chevy Chase Section Three village	791
Chevy Chase View town	986
Chevy Chase Village town	2,060
Gaithersburg city	68,289
Garrett Park town	1,050
Glen Echo town	271
Kensington town	2,374
Laytonsville town	378
Martin's Additions village	996
North Chevy Chase village	597
Poolesville town	5,242
Rockville city	68,268
Somerset town	1,280
Takoma Park city	17,768
Washington Grove town	561

Source: U.S. Census Bureau, Population Division, Population Estimate Program. Release date: May 2019
 Research & Special Projects, Montgomery County Planning Department, M-NCPPC (10/31/2019)

Figure 2.2 Map of Montgomery County Including Municipalities



2.3 Employment Trends and Federal Facilities within the County

Montgomery County is the largest suburban employment center in the Metropolitan Washington Statistical Area and is second only to Baltimore City within Maryland. Montgomery County's economy was affected by the Great Recession (2008 – 2011); however, its employment shrank less than other jurisdictions in the MSA during the height of the recession. Employment in the County declined 1.8 percent between 2008 and 2011 compared to 3.9 percent nationwide³. The reason for this mild loss could be attributable to the role played by the federal government in the County's economy. Industries such as finance, construction, retail, and others were supported by federal funding directly through contracts and suppliers or indirectly through the multiplier effects of County household spending from federal workers.

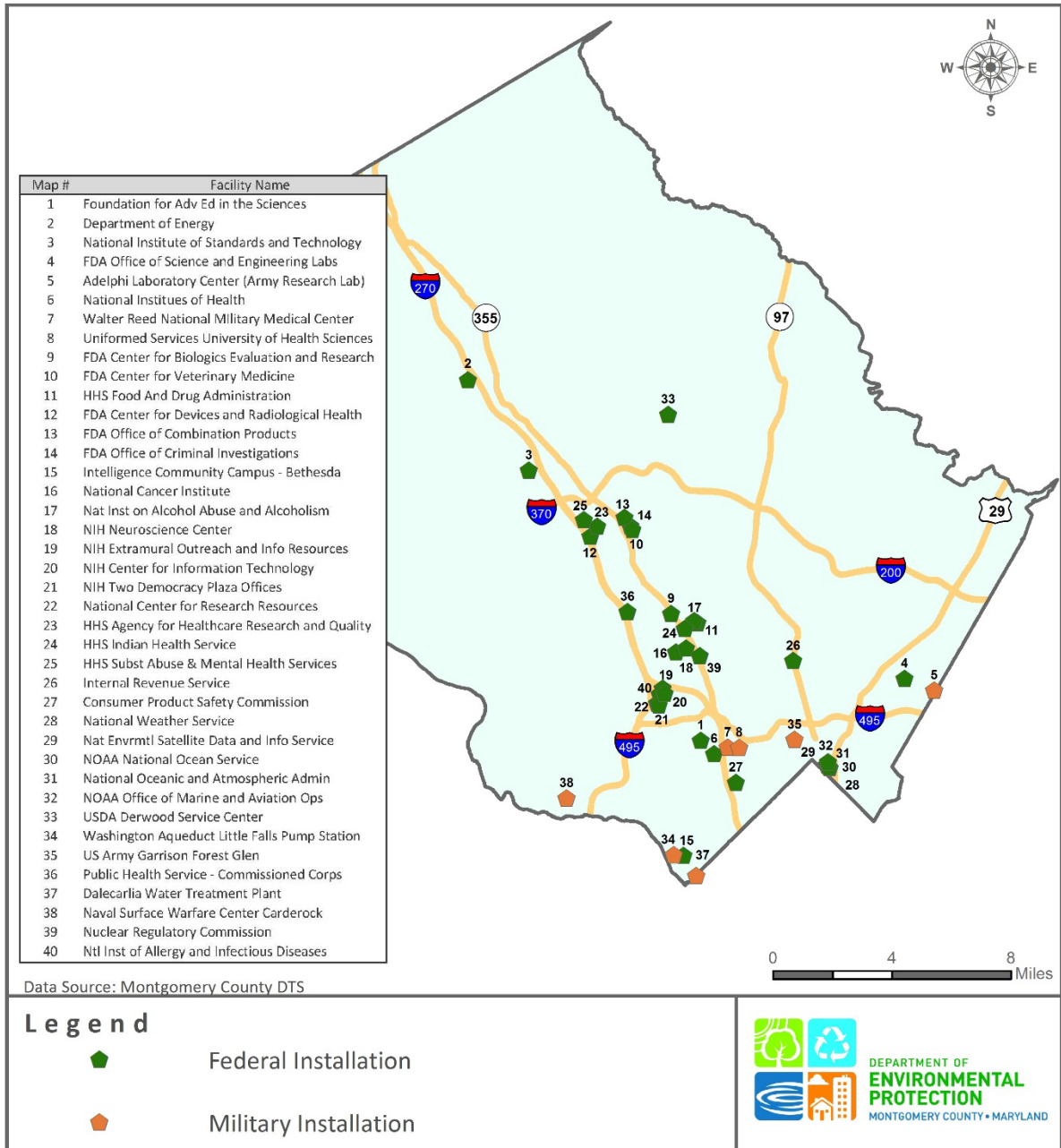
According to the Montgomery County Comprehensive Economic Strategy (CES), 2016, the County is an important contributor to the regional economy. The County represents 17 percent of the MSA total population.

The distribution of employment between the private and public sectors in the County has not changed since the 1990s. The County is both a major federal employment hub and a robust private sector employment center. The federal government is the top employer in Montgomery County with the National Institutes of Health (17,580 employees), U.S. Food and Drug Administration (13,855 employees), and Naval Support Activity (12,000 employees). Figure 2.3 shows the locations of federal installations in the County.

The fastest growth has been in education, health and social services, professional management, and scientific services within the private sector. Montgomery County's private sector industries generate \$75.1 billion in economic output in areas including information technology, telecommunications, biotechnology, software development, aerospace engineering, professional services, and government or federal contractors. The leading private employers include Adventist Healthcare, Choice Hotels, Emergent BioSolutions, GEICO, Giant Food, HMSHost, Kaiser Permanente, Lockheed Martin, Marriott International, MedImmune, Supernus, Verizon, and WeddingWire.

³ Montgomery Planning Department Blog. Rick Liu, January 11, 2017

Figure 2.3 Map of Montgomery County Including Federal Installations



M-NCPPC forecasts at-place employment (the number of positions located in the County) to grow at an annual rate of approximately one percent per year from 2019 to 2029, resulting in a projected employment increase of 59,260 in the year 2029. Table 2.4 shows the M-NCPPC "Round 9.1" projections for at-place employment.

Table 2.4 At-Place Employment, Montgomery County, Maryland 2019-2029.

Year	Estimated County Employment
2019	538,840
2020	543,500
2021	549,300
2022	555,100
2023	560,900
2024	566,700
2025	572,500
2026	578,900
2027	585,300
2028	591,700
2029	598,100

Source: M-NCPPC, Cooperative Forecast, Round 9.1, five-year increments 2020, 2025, and 2030. Intermediate years were interpolated. The above years are calendar years, not fiscal years

2.4 Comprehensive Land Use Plan

Land use policies directly affect solid waste generation and management, both in terms of the quantity and type of waste generated and the properties on which solid waste management facilities may be located.

The County's comprehensive land use plan, *"On Wedges and Corridors: A General Plan for the Maryland-Washington Regional District in Montgomery and Prince George's Counties (the General Plan)"*, was adopted in 1964 and updated in December 1993. As a response to the technological, social, environmental, and economic changes that have occurred since the Plan's adoption, the Montgomery County Planning Department commenced a multi-year planning effort to update the General Plan. In April 2021, the Planning Board transmitted its "Thrive Montgomery 2050" General Plan Update to the County Council for review and action.

Objective 9 in the Environment Chapter of the General Plan states: "Provide an adequate, self-sufficient, well-monitored, and ecologically sound system for the management of Montgomery County's solid wastes." The following strategies are listed to accomplish this objective:

- "Provide appropriate industrially zoned land necessary to support present and future waste management facilities, including local recycling;
- Consider land-use implications when developing a comprehensive solid waste management program;
- Minimize the environmental and other negative impacts of facilities that handle waste products through proper siting and design;
- Explore source reduction of waste through means such as charging collection fees in proportion to the amount of trash produced;
- Increase and promote the public and private use of recycled goods so that the amount of land devoted to landfills is minimized; and
- Cooperate with neighboring jurisdictions in sharing management practices and devising regional waste management strategies so that effective solutions to waste management can be achieved."

2.5 Zoning Requirements Related to Solid Waste Management Activities

Chapter 59⁴ of the County Code defines zoning requirements and establishes zones designating agricultural, residential, commercial, industrial, or a mixture of uses at specified densities. Specific uses are permitted by special exceptions approved on a case-by-case basis by the Board of Appeals. This Board reviews and holds public hearings on applications for special exceptions. The Board of Appeals also considers variance requests relating to deviations from prescribed limitations such as setbacks and height restrictions. A zoning text amendment is a mechanism by which the County Council can modify the Zoning Ordinance and authorize changes, additions, or deletions to zones or standards governing the use of zones. This Plan shall not be used to create or enforce local land use and zoning requirements. Also, subsequent zoning information in the Plan should refer back to this statement.

Section 3.6.9 of the Zoning Ordinance limits a landfill, incinerator, or transfer station as a conditional use in the Industrial zone. The Hearing Examiner may permit a Recycling Collection and Processing structure or land used for the collection and recovery of paper, metals, plastic, glass, lumber, presorted construction, or demolition debris as limited use in the Industrial zone.

2.5.1 Agricultural Preservation

The County's diverse agricultural industry's 540 farms and 350 horticultural enterprises produce more than \$287 million in economic contributions from agricultural products and operations. Most Montgomery County farms are family-run operations, many dating back several generations. Together they employ more than 10,000 residents. Of the County's 540 farms, 42 percent are farmed as a primary occupation⁵.

Agricultural activities occupy about one-third of Montgomery County's 316,800 acres of land. Over half of the 93,000-acre Agriculture Reserve is preserved through transferable development rights or easement purchase initiatives.

⁴ [Chapter 59: Zoning Code.pdf](#)

⁵ Montgomery County, Office of Agriculture, Agricultural Fact Sheet May 2016

The County and the State have programs for the preservation of agricultural land. Both the State and the County have established agricultural easements using property deeds that carry restrictions to limit non-agricultural use of the property while also providing right-to-farm protection. The County also applied the Rural Density Transfer (RDT) zone to most agricultural areas in the northern and western parts of the County. Property owned in the RDT zone may trade Transferable Development Rights (TDRs) from their agricultural zone to redirect development to certain non-agricultural sections of the County. Development in the RDT zone is limited to one dwelling per 25 acres. Historically, most landfill candidate sites have been located within RDT zoned areas.

2.5.2 Transportation Considerations for Solid Waste Activities

Solid waste collection vehicles must service all areas of the County. In doing so, solid waste vehicles must safely navigate a wide range of road surfaces and conditions in a manner that minimizes noise, odor, and litter disturbances to the community.

Chapter 48 of the County Code and regulations administered by DEP regulate the operation of solid waste vehicles to address potential nuisance and safety issues. County regulations require that solid waste collection and transfer vehicles must be inspected and registered. Loads of solid waste must be contained or covered during transportation to minimize litter. Collection of solid waste cannot occur before 7 a.m. near residential neighborhoods. State and local transportation laws and regulations impose other safety and require review by M-NCPPC under the Adequate Public Facilities Ordinance. In such cases, M-NCPPC may recommend improvements to the transportation network.

The County has a policy to minimize solid waste-related traffic on County roads. In the 1980s, the County constructed the Transfer Station to reduce the number of vehicle trips going directly to the Oaks Landfill. In 1995, the County established a rail haul system to transport solid waste from the Transfer Station to the RRF to reduce solid waste truck traffic through communities. "In 2017, the County entered a long-term contract through the NMWDA with Republic Service, Inc. for beneficial reuse of RRF ash. Transportation of the ash from the RRF is accomplished by rail. A small amount of bypass waste and non-processible waste are transported from the transfer station via truck to various disposal locations." A map of solid waste facilities and major roadways in the County appears in Figure 2.4.

Figure 2.4 Map of Solid Waste Facilities and Roadways in Montgomery County

