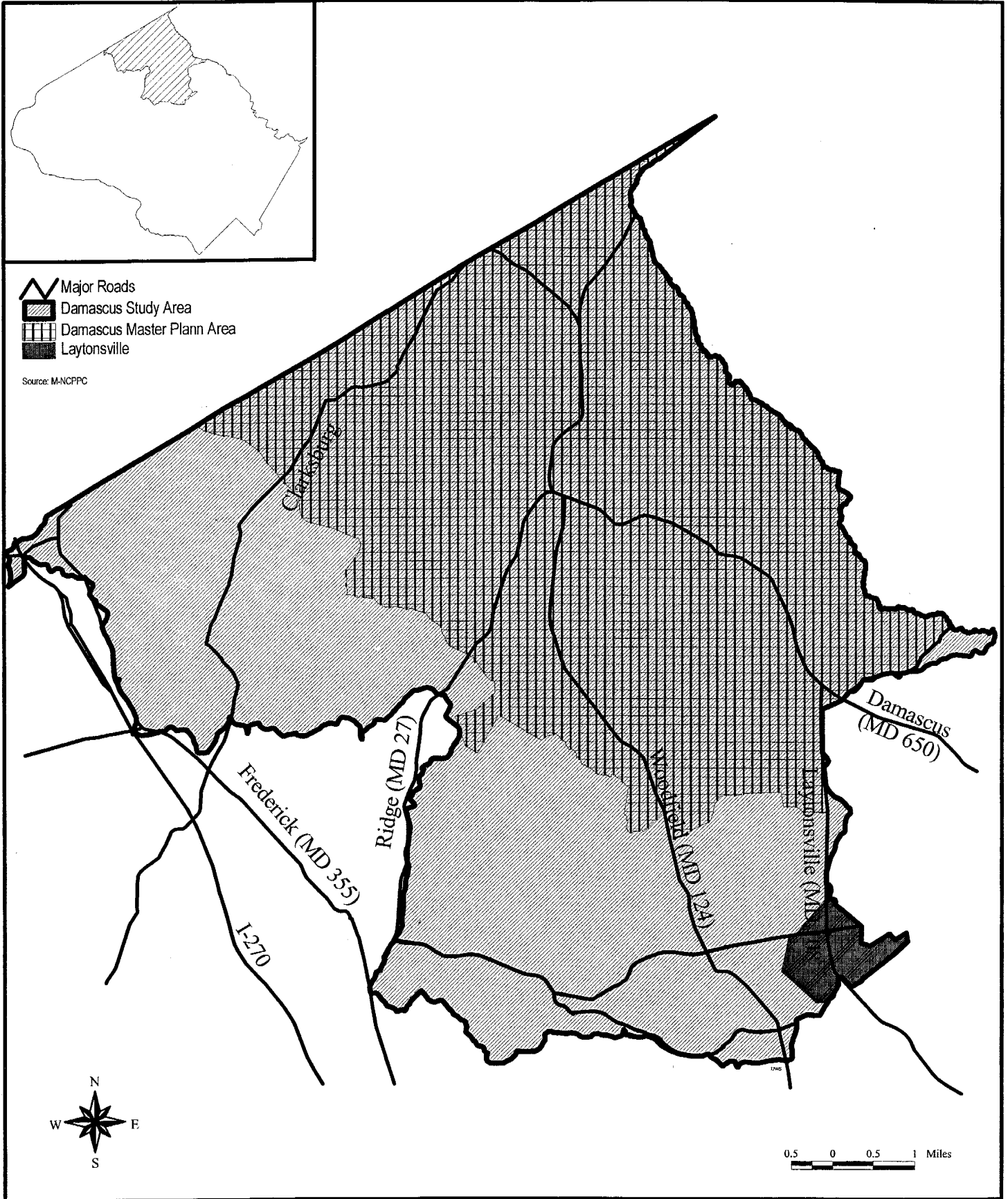


Vicinity Map

Figure 1



Introduction

Introduction and Executive Summary

This environmental resource report provides an inventory of environmental conditions for Damascus and vicinity as well as the policy context that applies to environmental resource protection. The report provides background information on the environment for the master planning process. That process, which follows the publication of this report, will develop environmental protection and management goals, objectives and recommendations specific to the Damascus Master Plan Area.

Description of the Damascus Study Area

The Damascus Environmental Resources Inventory Study Area is located in the northernmost section of Montgomery County, Maryland. The boundaries are approximately, the Patuxent River and Hipsley Mill Road to the northeast, Laytonsville Road to the east, Brink and Warfield Roads and Little Bennett Regional Park to the south, Ridge Road (MD 27) to the west, and the Frederick-Montgomery County line to the northwest. The study area encompasses 40,505 acres (63.3 square miles), which includes the entirety of the Damascus Master Plan Area (22,151 acres) and the subwatershed area of tributary streams that are part of the master plan area hydrology, although they fall outside the boundary (see Figure 1). This was done in order to compare resources within the logical framework of watershed or subwatershed boundaries. Accordingly, this inventory uses a watershed and subwatershed approach to document the existing environmental conditions and health of the natural resources in Damascus and vicinity. The study area encompasses part, or all, of eight watersheds: Upper Great Seneca Creek (16,791 acres), Little Bennett Creek (8,165 acres), Bennett Creek (7,081 acres), Upper Patuxent River (6,807 acres), Middle Great Seneca Creek (1,349 acres), Hawlings River (303 acres), South Branch Patapsco River (7 acres), and Bush Creek (2 acres). The streams of Upper and Middle Great Seneca Creek flow into the Potomac River, Bennett Creek, Little Bennett Creek and Bush Creek into the Monocacy River, Hawlings River into the Patuxent River,

and South Branch Patapsco River into the Patapsco River (see Figure 2).¹

The land uses in the study area range from medium density suburban residential and commercial uses in the Damascus town center to low-density, rural, and agricultural uses in the outer periphery of the study area. Public park lands which provide protection of natural resources generally follow the various stream valleys, the major exceptions consisting of Little Bennett Regional and Patuxent River State Parks which also include significant upland habitat.

Summary of Environmental Resources

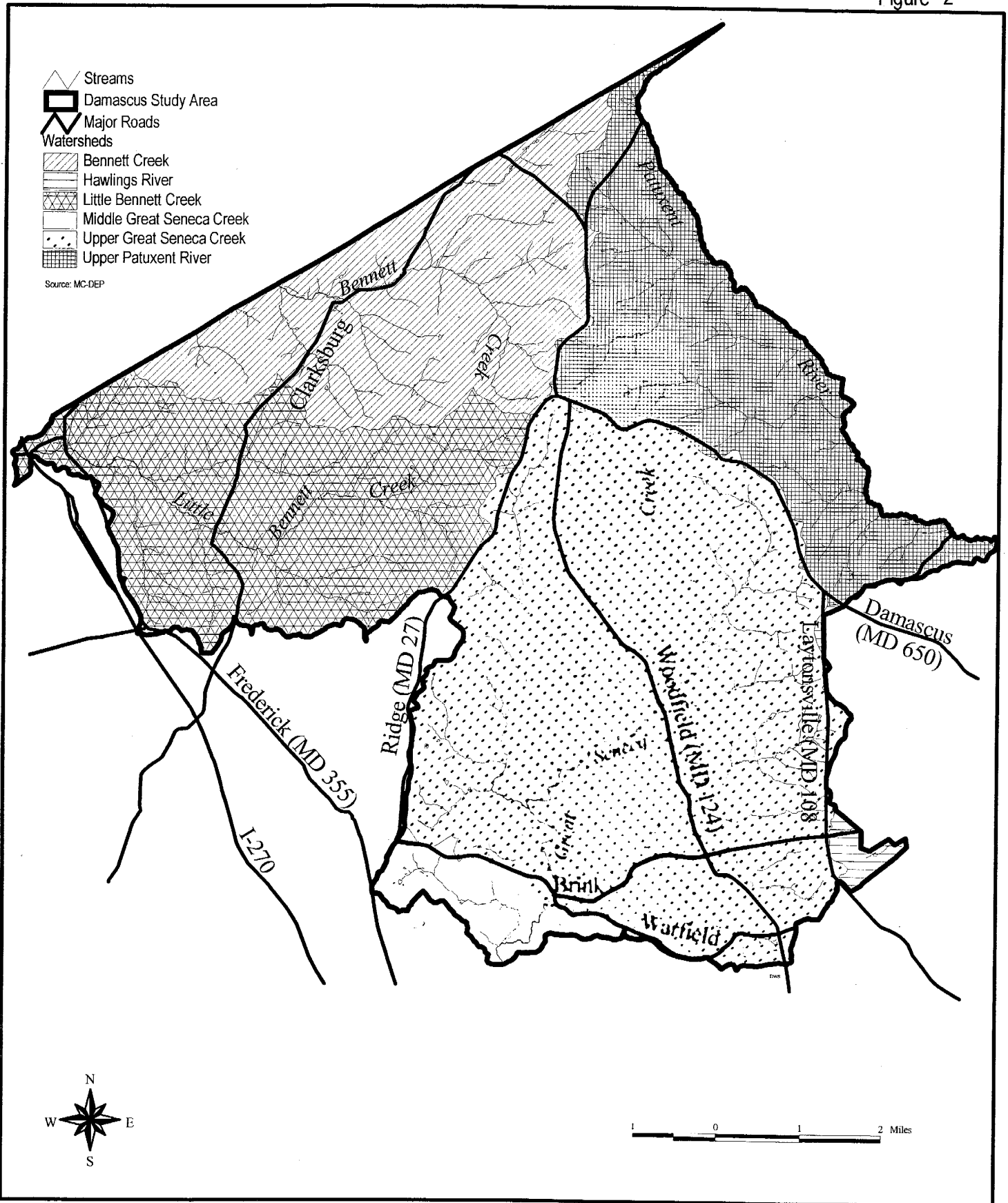
Streams in the Damascus Study Area are currently designated by the state of Maryland as either Use I, III, or IV²; they are also designated as Water Supply (P). According to the *County-wide Stream Protection Strategy* report (DEP, 1998), subwatershed stream conditions, where covered in the study area, range from excellent to fair. Headwater streams of the Upper Patuxent River, Little Bennett Creek and portions of Upper Great Seneca Creek are almost all currently rated "excellent" or "good" and are among the least impaired

¹ Due to their negligible size, South Branch Patapsco River and Bush Creek watersheds will hereafter not be considered for the purposes of this inventory.

² The state water use I-P designation includes waters which have the potential for, or are suitable for, the growth and propagation of fish, other aquatic life, and wildlife and which are also potable. Use I streams are generally not cold water habitats, though some streams in this study area are. State use III-P waters are defined as those which have the potential for, or are suitable for, the growth and propagation of trout (by definition cold water habitats), and are capable of supporting self-sustaining trout populations and their associated food organisms and which are also potable. The state water use IV includes waters that are capable of holding or supporting adult trout for put and take fishing, and that are managed as a special fishery by periodic stocking and seasonal catching and which are also potable (COMAR § 26.08.01).

Watersheds

Figure 2



streams in the county. Many of these streams are considered "reference streams" and are essential for the development and maintenance of the Indexes of Biological Integrity the county uses to manage streams resources. The Bennett Creek watershed also maintains excellent to good stream conditions and is considered a healthy agricultural watershed.

Streams in fair condition are generally found in the most heavily developed section of the study area – the Magruder Branch subwatershed of Upper Great Seneca Creek; their degradation a direct result of suburbanization.

Forests within the study area generally follow stream valleys, with several larger stands also including significant upland habitat. These large blocks of contiguous forest are important habitat for forest interior dwelling animal and plant species, and are relatively rare in Montgomery County due to land development and agriculture. Significant areas of woodland habitat occur along the mainstems of Bennett and Little Bennett Creeks and the Patuxent River. In other areas within the study area, development or agricultural practices have significantly reduced, or highly fragmented forested areas.

Wetlands occur throughout the study area, generally along streams. By far, the greatest amount of known wetlands occur within the Upper Great Seneca and Little Bennett watersheds. A variety of functions are performed by these wetlands, including provision of terrestrial and aquatic wildlife habitat, amelioration of flooding, filtering of stormwater, and provision of groundwater flow to surface streams.

Agricultural land uses are found throughout the study area, save the Damascus town center. This is due in part to the inclusion of the Damascus area in the Rural Density Transfer (RDT) zone which has resulted in a more compact development pattern around the town center and protection of agricultural land. Approximately, 13,605 acres of pasture, cropland, and orchards occupy approximately 34 percent of the study area with 19 percent of these agricultural areas in parkland.

Natural resources in the study area receive varying levels of protection on public lands. Public lands cover 7,808 acres of the study area (about 19 percent); they include M-NCPPC and state of Maryland parklands and one Montgomery County Revenue Authority property. Sixty-three percent of study area parkland is within Little Bennett Regional and Patuxent

River State Parks. Though the remaining parkland is found in the stream valleys (much of this in the Upper Great Seneca Creek watershed), many miles of streams within the study area receive no public land protection; this is especially true of headwater streams. Protection of these areas therefore, relies primarily on conservation areas set aside during the land development process, and the sensitivity with which agricultural practices and agricultural practices private actions are carried out.

Air quality in the study area is similar to that found throughout the county. Ground-level ozone is formed from a regional mixture of vehicle and industrial emissions, creating unhealthy ozone levels throughout the metropolitan area several days each summer.

Noise is generated by roadway traffic. Noise is created along main roads by vehicular traffic. In the study area these roads occur mainly along the ridgelines. Therefore the highest noise levels are found here as well as in the Damascus town center.

Community water and sewer systems serve approximately one tenth of the study area. Community water and sewer service is available primarily to properties zoned higher density residential, commercial, or industrial found within the planning area boundary between Ridge (MD 27), Woodfield (MD 124) and Damascus (MD 108) Roads; it is not currently planned for the majority of the study area though some areas near Clarksburg and Germantown have been, or are approved for, service. Potable water is provided by WSSC from either the Potomac Water Filtration Plant (WFP) or the Patuxent Water Filtration Plant. The WSSC trunk line and Damascus Wastewater Treatment Plant, located along the mainstem of Magruder Branch, provide the majority of sewer service for the study area.

Environmental Policy Framework

Many existing environmental laws, policies, and regulations affect planning for Damascus and vicinity. This policy framework is reflected in the environmental goals and objectives of the General Plan Refinement. The federal, state and local framework helps identify resources to be protected and guides local decisions regarding land use planning and zoning as it affects the natural environment.

Damascus and Vicinity Environmental Resources

The identification and protection of sensitive areas are required by the state of Maryland Economic Growth, Resource Protection, and Planning Act of 1992. This

environmental inventory report is designed to satisfy the requirements of the Planning Act's Sensitive Areas Element for Damascus and vicinity.