Section 3
Background

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3.1 Introduction

The University of Maryland sought to develop this Hazard Mitigation Plan (“the Plan”) because of increasing awareness of the risks the campus and its operations face from natural hazards. With the support of the Maryland Emergency Management Agency (MEMA) the University requested and received a grant through the Federal Emergency Management Agency (FEMA) to develop a mitigation plan. As noted in various other parts of this document, the purpose of a mitigation plan is to rationalize the process of reducing risks to its people, physical assets, and operations.

3.2 The University of Maryland, Past and Present

Established in 1856 as the Maryland Agricultural College (MAC), the University of Maryland now offers 127 undergraduate degrees and 112 graduate degrees. Founded by Charles Benedict Calvert, the University has grown from 34 students in 1859 to 90 departments within 13 colleges and schools, with about 35,000 total enrollment in 2007. The Colleges include James Clark School of Engineering; College of Agriculture and Natural Resources; School of Architecture, Planning, and Preservation; College of Arts and Humanities; College of Behavioral and Social Sciences; College of Chemical and Life Sciences; College of Computer, Mathematical and Physical Sciences; College of Education; College of Health and Human Performance; College of Information Studies; Philip Merrill College of Journalism; Robert H. Smith School of Business; and the School of Public Policy.

Faced with bankruptcy during the Civil War, the college’s campus was used solely as a boys’ prep school for two years until 1866, when the Maryland legislature acquired half ownership. The school’s present-day reputation as a research institution began in 1887 with establishment of the federally-funded Agricultural Experiment Station. Tragedy nearly forced the college to close again in the Great Fire of 1912, which caused the destruction of all university buildings except one, Morrill Hall. In 1916 the state took full control of the school, making it a state institution. By 1920 enrollment had reached 500 students. Today, the University’s academic and athletic programs have gained national prominence. Known as a public “ivy” specializing in research, the University recently added 150 acres to develop a research park known as “M Square” and has recently completed construction of a Bioscience Research Building.
3.3 Geography, Population and Climate of the Planning Area

3.3.1 Geography

The University of Maryland’s College Park campus is comprised of over 1,500 acres in Prince George’s County. The campus is located about eight miles northeast of Washington D.C., in an urbanized area that includes a fairly high density of infrastructure, housing and businesses. The campus is bordered by the City of College Park to the east and south, and by Prince George’s County on the north and west. The UM campus (and the area in general) is characterized by rolling terrain. It is located generally at 39.00 N Latitude, 76.93 W Longitude.

The planning area is situated 50 miles east of the Blue Ridge Mountains and 34 miles west of the Chesapeake Bay at the western edge of the middle Atlantic Coastal Plain, on slightly rolling terrain. The area’s station elevation is approximately 72 feet above mean sea level. Three distinct regions characterize the state’s topography, including the Atlantic Coastal Plain, Piedmont Plateau, and the Appalachian Mountain Region. Maryland’s predominant region is the Atlantic Coastal Plain, bisected unequally by the Chesapeake Bay into the Eastern Shore and the more expansive Western Shore. West of the coastal lowlands is the Piedmont Plateau noted for its broad, rolling upland with many deep gorges carved out by rivers. Further west is the Appalachian Mountain Region, which stretches from the Catoctin Mountains in Frederick County to the West Virginia border. The state’s highest summits can be found in this mountainous region.

Rivers in Maryland include the Potomac, forming most of the southern and western borders; the Patapsco, which passes through Baltimore; the Patuxent, draining the Western Shore; and the Susquehanna, crossing the Pennsylvania border and emptying into the Chesapeake Bay in northeastern Maryland. The state has 23 rivers and other bays, as well as many mid- to small-sized lakes and creeks.

The main water feature that affects the campus is the Paint Branch, a tributary of the Anacostia River. Paint Branch is oriented in a roughly a north-south direction in this area, and runs along the eastern side of the UM main campus, west of U.S. Route 1. Paint Branch is not in the regulatory jurisdiction of UM. Campus Creek also crosses the UM campus in roughly a northwest to east direction, and is variously channelized and above ground in different locations. The creek is a minor tributary to Paint Branch. These two water courses are depicted in graphics in Appendices E and G of this plan.

3.3.2 Population

The planning area population is a mixture of ages and other demographics, not surprisingly with a weighting toward college-aged students. The neighboring City of College Park has a population of 24,657, according to the 2000 Census. Out of that population, 28.7% of residents (7,080) were between the ages of 20 and 24 years of age, 57%
(12,783) have never been married, and 49.6% (2,989) live in non-family households. In 2000 approximately 86% of the population (13,162) were enrolled either as undergraduate or graduate students.

There is no readily-available information about the age of the UM campus population (which includes students and staff, plus a considerable number of visitors on any given day), although it is likely that the demographics of the campus are similar to the surrounding City because of the large number of students living off-campus. The campus itself is home to about 35,000 students and 3,700 staff, although the exact number of people on campus varies significantly with the time of day and the academic cycle. During academic hours, students and staff are widely distributed across various parts of the campus, while in the evenings and on weekends there is a higher ratio of students (versus faculty and staff), and the populations tend to be concentrated in the residential areas recreational areas such as Stamp Student Union and sports venues, as well as in the academic buildings where evening classes are held.

On-campus student housing is concentrated in two areas. The north end of the campus is the site of numerous high-rise dormitories of steel and masonry construction. There are also numerous mid-rise masonry structures on the south end of the campus. There is no plan for increasing the size or extent of residential facilities on the campus, nor is there any expectation that there will be any significant changes in the size or demographic characteristics of students or staff.

In the City of College Park, the top five industries include Education (14,015 employed); Public Administration (4,140); Professional, Scientific, Management, Administration and Waste Management Services (2,605); Retail Trade (1,490); and Arts, Entertainment, Recreation, Accommodation and Food Services (1,460) (Source: 2000 Census Data, HUD State of the Cities Data System).

Growth trends point to an increase in population in the general planning area based on an 11% rise in population from 1990 to 2000, according to census data. From 21,927 residents in 1990 to 24,657 in the year 2000, the population increased by 2,730 residents. The College Park campus has grown steadily over the past decades, both in terms of physical development and expansion, and in the number of students that are enrolled. The physical growth of the campus is guided by the UM Master Plan and the University's Capital Improvement Plan, as well as by various state regulations to which UM is subject.

### 3.3.3 Climate

Summers in the planning area are warm and sometimes humid and the winters are generally mild. Especially pleasant weather prevails in the spring and autumn. The coldest weather occurs in late January and early February, with an average daily maximum temperature of 45 degrees Fahrenheit and an average daily minimum of 28 degrees Fahrenheit. The warmest weather occurs in late July, when daily high temperatures commonly exceed 86 degrees Fahrenheit. There are no well-defined wet and dry seasons. Snowfall is not uncommon, though it averages only about 17 inches per winter season. During the summer, showers are frequent and thunderstorms occur approximately one of every five days.
Figure 3-1
Central Maryland Average Temperatures and Precipitation by Month

Based on data reported by over 4,000 weather stations.

3.3 Maps of the Planning Area

The figures immediately below show the location of the UM College Park campus, which is located between Baltimore and Washington, inside the Washington beltway (I-495), with primary access via U.S. Route 1.
The UM campus is located inside the Washington beltway (I-495) about 10 miles northeast of center-city Washington D.C.
Figure 3-4

Satellite view of the UM College Park campus. The campus is located in central Maryland in an area of moderate- to high-density urban and suburban development. The campus borders the City of College Park. Photo from Google Earth.