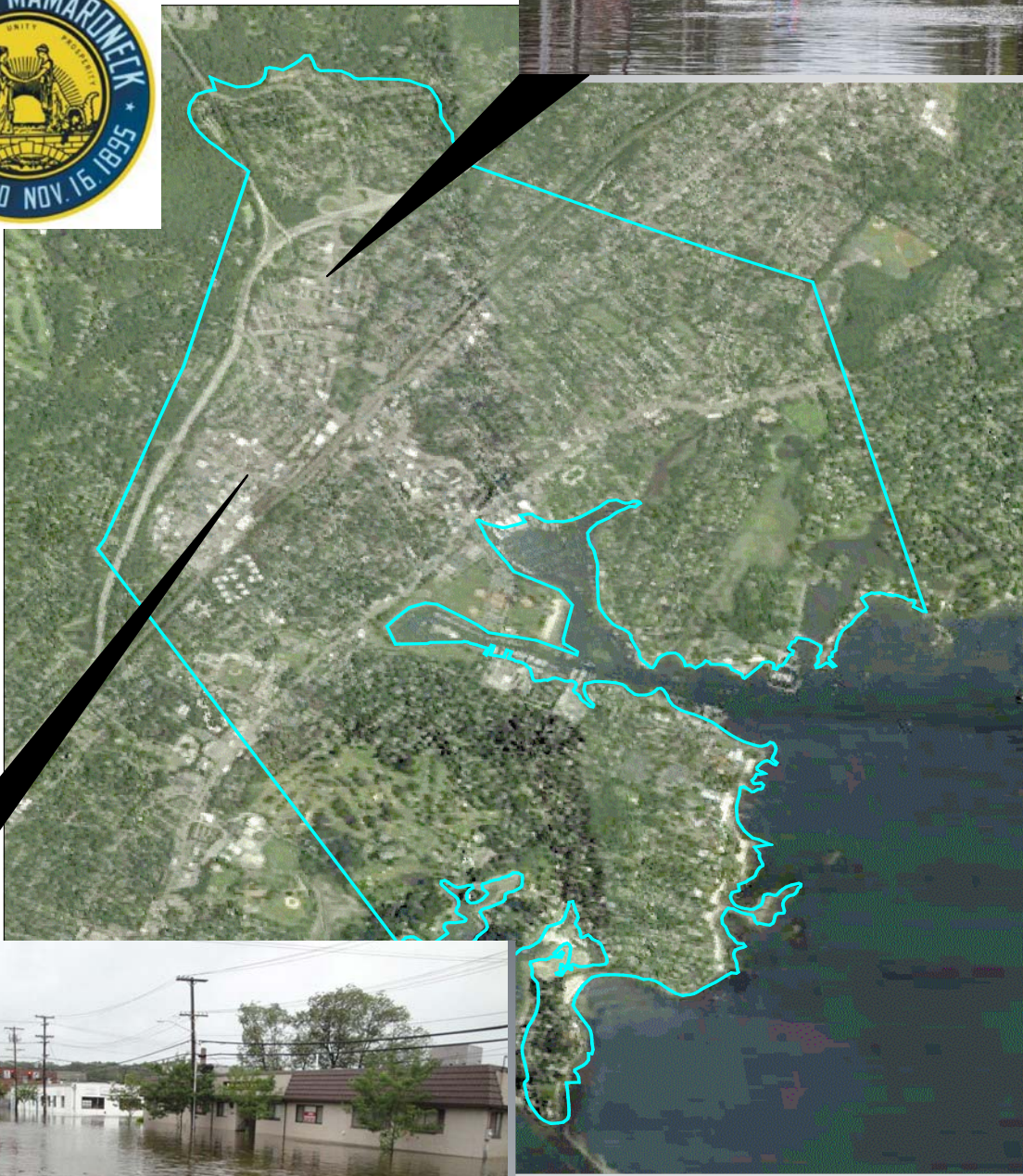


**INCORPORATED VILLAGE OF
MAMARONECK, NEW YORK**

May 2012

**FINAL
LOCAL MULTI-HAZARD
MITIGATION PLAN**



PREPARED BY:



**Environmental
Technology
Group, Inc.**

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INCORPORATED VILLAGE OF MAMARONECK, NEW YORK

LOCAL MULTI-HAZARD MITIGATION PLAN

April 2012

Submitted to

Village of Mamaroneck

**123 Mamaroneck Avenue
Mamaroneck, New York 10583**

Prepared By



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Village of Mamaroneck, NY Local Multi-Hazard Mitigation Plan

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Incorporated Village of Mamaroneck: Multi-hazard Mitigation Plan

Preface and Summary Statement

This Local Multi-Hazard Mitigation Plan for the Village of Mamaroneck identifies and assesses natural and manmade hazards that could adversely impact the community and proposes and evaluates feasible mitigation activities for the village, which could reduce the hazard's impacts. The plan applies to the jurisdiction of the Village. The Village will coordinate with any future multi-jurisdictional plan prepared by Westchester County. The main body of the Plan follows the Federal Emergency Management Administration (FEMA) guidance used to develop hazard mitigation plans. Where applicable, Geographic Information Systems (GIS) maps are used in this plan. The plan includes an appendix with supporting documents and articles and hazard analyses details which were discussed in the main part of the plan.

The Village of Mamaroneck, New York, incorporated in 1895, is an incorporated municipality located within the Town of Mamaroneck and the Town of Rye in south eastern Westchester County along Long Island Sound at 40.5559 North Latitude and 0734334 West Longitude. (See Figures 0-1 and 0-2) The area is bounded on the north by the City of Rye and the Town/Village of Harrison, NY, to the west and south by the Town of Mamaroneck and to the East by Long Island Sound. (See Figure 0-2.) Mamaroneck was originally a farming community located on both sides of the Mamaroneck River.

The portion of the village which is located on the east side of the Mamaroneck River is within the Town of Rye and is also known as Rye Neck. Today the Village is largely a residential and commuter community on Long Island Sound. It has a major inland harbor and facilities to build and service large pleasure boats and yachts.

Mamaroneck has a temperate coastal climate with an average high July temperature of 81.7 degrees Fahrenheit. The average minimum temperature in January is 28 degrees. The highest and lowest recorded temperature since 1948 in White Plains was 102 degrees in 1966 and minus 10 degrees in both 1961 and 1979, respectively. The average annual rainfall is 50.24 inches.



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Project Name
Incorporated Village of Mamaroneck
Multi-Hazard Mitigation Plan

Figure Title

Regional Location Map
for Mamaroneck, NY

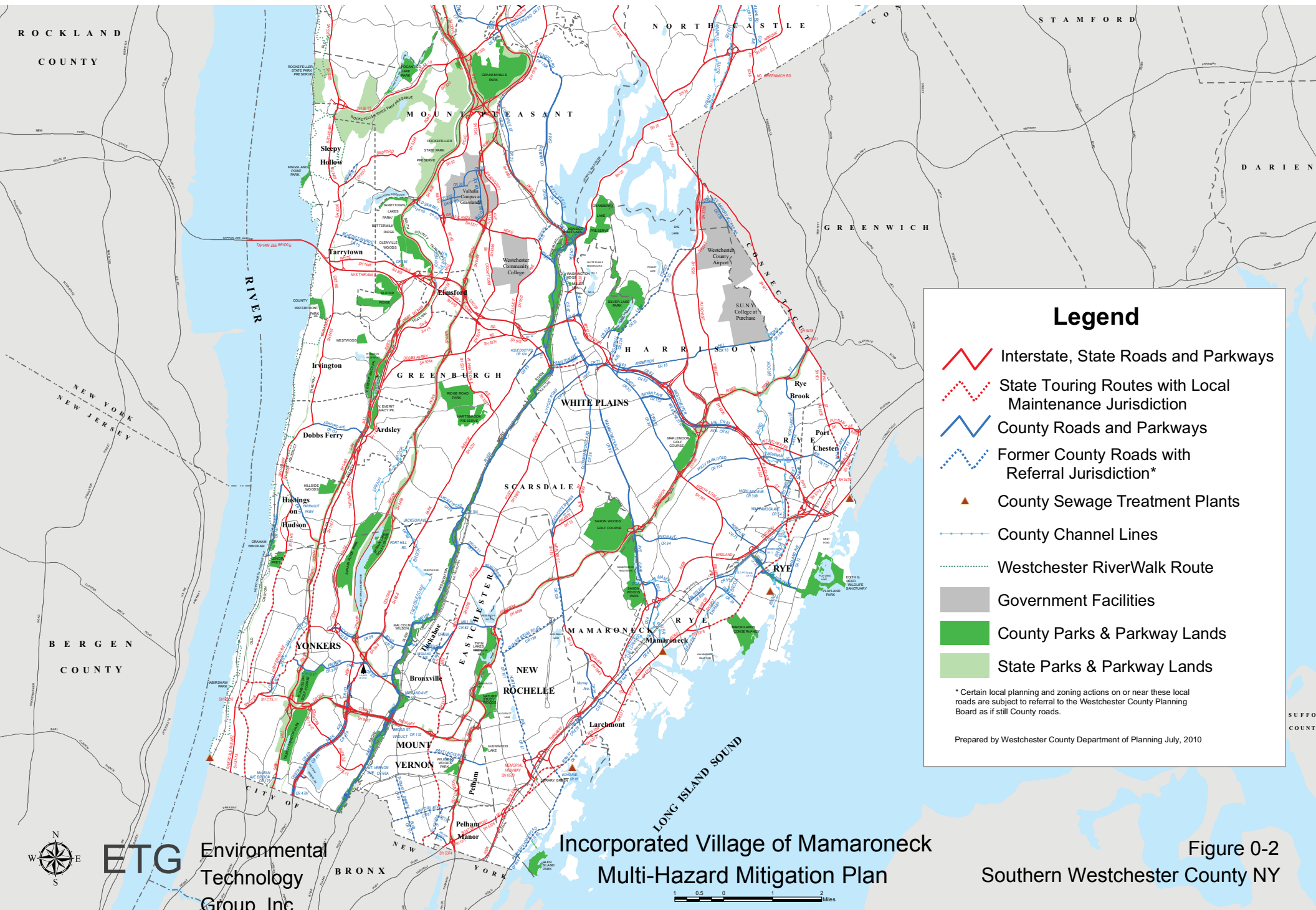
Figure 0-1

DWN BY: AJZ

CHK BY: JB

SCALE: AS SHOWN

DATE: 04/27/12



The Village is home to a number of distinct residential neighborhoods, each with its own characteristics. Along the Sound, there are Shore Acres, several homes in the Greenhaven section, and Orienta; areas where all properties were previously owned by wealthy families from New York City, and utilized as summer residences.

Heathcote Hill overlooks the harbor. Harbor Heights, at the northeastern corner of the Village was developed in the 1920's. The Old Rye Neck area is populated with older homes built in the 1880's along North Barry and Melbourne Avenues. Further east in Rye Neck, neighborhoods began to develop in the 1920's and 1930's. The Washingtonville area, first developed before the Civil War, is encircled by higher ground, making it especially susceptible to flooding.

The main commercial areas are Mamaroneck Avenue from 1-95 to Boston Post Road (U.S. Route 1). An industrial and light manufacturing area is located along Fenimore Road and Waverly Avenue.

Interstate 95, a major highway serving the north east corridor from New York City to Boston, cuts across the northwestern section of the village. It is the busiest transportation route in the northeast. The local railroad from New York City, the New Haven line of Metro North, runs north/south through the center of the village. Today the village of Mamaroneck is a commuter's home for individuals working in Manhattan.

Mamaroneck was at one time the location of summer residences for wealthy families from New York City. A harbor on the Long Island Sound supports facilities for pleasure boating and also contains a large park with sporting facilities. The enclosed harbor with its park is a valued resource to the community and is used by residents to participate in sports or relax and enjoy the view of the harbor and its surroundings.

The Harbormaster oversees the Village's nine miles of shoreline. There are numerous yacht clubs, boat yards and marinas located along the coastline, containing approximately 800 boat slips and 400 moorings. Beach Clubs can also be found along the Sound. Harbor Island Park is the centerpiece of the waterfront community. It provides a public beach, soccer, softball and baseball fields and a tennis facility.

The Village population grew from about 1,500 in 1895, when it was a small farming community, to just under 18,930 for the 2010 census. The census of 2010 showed little population increase of 0.9% to 18,930 people since 2000 and 6,998 occupied housing units in the village. In 2009 there were 6495 households in the village with a median income of \$94,396. The population density was 5,799.4 inhabitants per square mile (2,239.2 /km²) and 7,353 housing units at an average density of 2,274.1 per square mile (878.0 /km²). The racial makeup of the village in 2010 was 65.3% White, 3.7% Black or African American, 0.1% Native American, 4.8% Asian, 0.4% from other races, and 1.4% from two or more races. Hispanic or Latino of any nationality was 24.3% of the population.

In 2000 about 4.2% of families and 6.9% of the population were below the poverty line, including 6.7% of those under age 18 and 9.0% of those ages 65 or over. Males had a median income of \$52,103 compared to \$40,186 for females. The per capita income for the village was \$36,926.

The Village of Mamaroneck is protected by 5 volunteer fire companies of the Village of Mamaroneck Fire Department (VMFD) that operate out of 4 Fire Stations, located throughout the village. The combined volunteer fire companies operate a total of 5 Engines, 2 Trucks, 3 Utility Units, and 3 Command Vehicles. The combined volunteer fire companies respond to approximately 1,000 emergency calls annually.

The village has a total area of 6.7 square miles, of which 3.2 square miles is land and 3.5 square miles or 52%, is water with approximately 9 miles of coastline. The Village Department of Public Works maintains approximately 46 miles of roadways and has 50 employees.

The Village is situated immediately adjacent to the Long Island Sound. The village terrain slopes upward from Long Island Sound on the east and ranges from sea level at the Mamaroneck Harbor to 50 feet above sea level in the west central part of the Village (see Figure 4-1). Elevations range from 300 feet on the western boundary to 10 to 15 feet at the shores of Long Island Sound. The Mamaroneck River which runs north to south through the area, contributes to frequent flooding. Drainage from the Village flows mostly into the harbor and then into the Sound.

The majority of the Village is located in designated flood zones according to the Village Flood Insurance Rate Maps (FIRM) and Flood Insurance Study (FIS). (See Figure 4-2)). Accordingly, the Village is prone to, and, has experienced serious flooding problems over the years.

The Village operates under a Council-Manager form of government, where the elected Mayor and four Trustees set Village policy and the Manager oversees the day to day operations of the Village. The Village administration is responsible for services which include fire and police protection, public works, snow removal, street and sewer repair and park maintenance. The Village Department of Public Works performs solid waste collection and recycling. The Village organization and services are discussed further in Section 1A.

The Village receives most of its water from a system owned and operated by Westchester Joint Water Works, a public benefit corporation of the Village of Mamaroneck, Town of Mamaroneck, and Town/Village of Harrison, established through state law. The Water Works provides potable water to its member communities. The Waterworks also conveys water to portions of the City of Rye, the City of New Rochelle, and the Village of Larchmont, as well as the private system operated by United Water, New Rochelle

This Multi-Hazard Mitigation Plan follows the Community Rating System (CRS) planning process and FEMA regulations and guidelines for State and local mitigation planning. (See 44 CFR Part 201 and FEMA Example Plans, 2003.) The requirements for the Hazard Mitigation Planning and Hazard Mitigation Grant Program are described in the Federal Register (Vol. 67 No. 38/February 26, 2002). The approach involves collecting and profiling hazard information, assessing hazard impacts, setting goals and objectives, developing and reviewing mitigation alternatives, evaluating risks and benefits, establishing priorities and preparing a course of action. This plan also satisfies requirements for several federal programs. Target grant and insurance rate reduction programs include, but are not limited to:

- FMA, (Flood Mitigation Assistance Program)
- PDM (Pre-Disaster Mitigation Grant Program)
- HMGP (Hazard Mitigation Grant Program)
- DMA 2000 (Disaster Mitigation Act of 2000)

The DMA 2000 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act by adding a section, which places emphasis on Mitigation Planning. It requires local governments to have an approved “All-Hazard Mitigation Plan in place to be eligible to receive Hazard Mitigation Grant Program funding. The plan must also include criteria established in 44 CFR Part 201.6 Hazard Mitigation Planning and Hazard Mitigation Grant Program. Requirements and criteria for developing the Plan are specified in this regulation. This Multi-Hazard Mitigation Plan for the Village of Mamaroneck incorporates all probable hazards in accordance with these requirements. Completion and approval of a Multi-Hazard Mitigation Plan is required by federal regulations in order to receive funding for flood prevention and storm protection projects or other FEMA Programs. For disasters declared after November 1, 2004 a local government must have this Plan approved by FEMA in order to receive grants.

The flood hazards mitigation portion of this plan can be used as the first step in getting approval for the Community Rating System (CRS) Program. This Program is a National Flood Insurance Program (NFIP) that provides incentives for the communities to complete activities that reduce flood hazards risks. When a community completes these activities, the insurance premiums of these policyholders can be reduced. This Plan, subsequent filing of an application, and receiving approval are necessary for qualifying for this Program. Under the CRS Program, each homeowner’s flood insurance cost could be reduced from 5% to 50%.

Mamaroneck is a densely populated community, which has, on several occasions, been impacted by major storms, floods and other hazards that have caused damage to property. (See Section 4.) Flooding has long been identified as a major problem in the Village. The Village Storm Water Management Program Annual Report (MS4) for 2010 Draft and earlier years is available online. (http://www.village.mamaroneck.ny.us/Pages/MamaroneckNY_Stormwater/index).

These reports discuss the Village’s program for managing flood problems.

This Multi-Hazard Mitigation Plan is the result of a process that involved the work of the consultant, the Environmental Technology Group (ETG), Inc. and the Village Hazard Mitigation Planning Committee, Village Board of Trustees, the Mayor’s Office, Village Manager and Assistant Village Manager, operating departments of the Village, Mamaroneck Fire Department,

Police Department, Public Works, participating citizens, Westchester County Department of Emergency Services and the New York State Office of Emergency Management (SOEM).

The purpose of this Plan is to address both the past and possible future hazards and to develop action items and a program, which the Village can implement to protect its citizens' businesses, and their property. This Plan is divided into 10 Sections. Each of the sections is a step in the FEMA process that addresses a phase in the planning process. The process is based on FEMA's guidance and example plans dated March 2003. These first 8 steps are:

Step 1 Organize Resources

Step 2 Involve the public, by creating a working committee and through public meetings

Step 3 Coordinate with other agencies and Organizations

Step 4 Assess the Hazards

Step 5 Assess the Problems

Step 6 Set Goals and Objectives

Step 7 Review Possible Activities

Step 8 Prepare a Draft Action Plan

These Steps represent the Multi-Hazard Mitigation Plan development. The last two Steps are action items for the Village to take once the Plan is approved by FEMA following its adoption by the Village Board of Trustees. They are:

Step 9 Implement, Evaluate and Revise the Plan

Step 10 Adopt the Plan.

The plan process involves identifying all possible hazards that could harm people in the community or damage buildings and structures. A profile of each hazard is prepared and each hazard is ranked according to their importance. Rating and ranking of scores are developed using the New York State Hazards NY (HAZNY) computer program. (See Section 4C.) This assessment is based on the frequency of occurrence, extent of impact, severity of impact to property and people, cascading effects on other hazards, duration of the hazard, warning time prior to onset of the hazard, and recovery time from the hazard. Based on this analysis and the

hazard assessment in each profile, only the most significant hazards were analyzed further for a detailed impact analysis, proposed mitigation measures and a cost benefit evaluation. Priorities were then established for mitigation activities based on these analyses and the goal and objectives set for the community.

This Plan contains information obtained from a variety of federal, State and local sources. (see Section 3, Coordination with Other Agencies.) The accuracy of this information has been verified to the best extent possible. For the majority of hazards evaluated in Section 4D and 4E (such as hurricanes, high winds, blizzards and ice storms), specific locations or extent of damages could not be specified since the entire Village is at risk. Flood information shown on the maps in this Plan is approximate and is based on existing data sources such as current Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies (FIS). Information on these maps is regarded as acceptable for planning purposes.

The public participation program is discussed in Section 2 of this plan. Village residents participate and provided input in public meetings and expressed concerns about the flood hazards they face on a regular basis. The Village Manager and staff have met personally with several residents who are impacted by local flooding. The residents provided strong support for actions that would correct the problems.

The public will continue to be involved in the revision and updating process. Public meetings on key issues will continue and notices ad progress will be published in local papers. The Village will post updates on their Website <http://www.village.mamaroneck.ny.us/Pages/index> . The Village will also send e-mail updates as well.

This Plan will be updated and modified by the Village according to Step 9 in Section 9. Updates will include the success of implementing the Plan's activities, availability of funds, availability of new information and changes in priorities.