

HAZARD MITIGATION PLAN for Pittsfield Township

November 2004



Pittsfield Charter Township
Washtenaw County
Resolution 04-48

A Resolution To Adopt The Hazard Mitigation Plan For Pittsfield Charter
Township
November 23, 2004

Minutes of a regular meeting of the Board of Trustees for Pittsfield Charter Township, Washtenaw County, Michigan, held at the Township Administration Building, 6201 W. Michigan Avenue, on the 23rd day of November, 2004 at 7:30 pm.

Present: Brostrom, Burhop, Conner, Lironcs, Meyer, Urda-Thompson, Walter
Absent: None

The following preamble and resolution were offered by Member Conner and supported by Member Burhop.

- Whereas** Pittsfield Charter Township Michigan has experienced disasters that have resulted in loss of life or injury, damaged commercial, residential and public properties, displaced citizens and businesses, closed streets and bridges, and presented general public health and safety concerns, and
- Whereas** as of November of 2004 the Federal Emergency Management Agency (FEMA) requires that communities have an adopted Hazard Mitigation Plan as a requirement to receiving funding under certain FEMA programs, and
- Whereas** the Hazard Mitigation Plan ranks hazards for the community, and identifies goals, objectives and strategies to reduce overall damage and impact from natural and technological hazards, and
- Whereas** Pittsfield Charter Township has worked with Washtenaw County to prepare a Hazard Mitigation Plan, by participating in the planning process and providing comments with respect to hazards, vulnerable areas and strategies, and
- Whereas** residents, community officials, business owners, educational institutions neighboring jurisdictions and the Michigan State Police Division of Emergency Management have had the opportunity to review the plan and their comments have been incorporated,

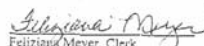
Now, therefore, be it resolved that:

1. The Hazard Mitigation Plan is hereby adopted as an official plan of Pittsfield Charter Township.
2. The Hazard Mitigation Plan will be an annual agenda item for the Pittsfield Charter Township Board of Trustees to review. The annual review shall include the following:
 - a. A review of the original plan.
 - b. A review of any disasters or emergencies that occurred during the previous calendar year.
 - c. A review of actions taken, including what was accomplished during the previous year.
 - d. A discussion of any implementation problems.
 - e. Recommendations for new projects or revised action items. Such recommendations shall be subject to approval by the Pittsfield Charter Township Board of Trustees.
3. The Hazard Mitigation Plan will be updated every five years as required by FEMA, with the assistance of Washtenaw County.
4. The Township Supervisor will be responsible for ensuring that the strategies in the Plan are implemented, with the understanding that implementation is based on the availability of funding and staff resources.

ROLL CALL VOTE:

AYES: Brostrom, Burhop, Conner, Lironcs, Meyer, Urda-Thompson, Walter
NAYS: None
ABSENT: None
ABSTAIN: None

RESOLUTION DECLARED ADOPTED.


Feliziana Meyer, Clerk
Pittsfield Charter Township
DATED: November 23, 2004

CERTIFICATE

I, Feliziana Meyer, hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the Township Board of Pittsfield Charter Township, County in Washtenaw, State of Michigan, at a Regular meeting held on November 23, 2004 and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.

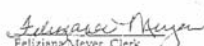

Feliziana Meyer, Clerk
Pittsfield Charter Township
DATED: November 23, 2004

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Pittsfield Township

1.0 INTRODUCTION

Hazard Mitigation is defined as any action taken before, during or after a disaster to permanently eliminate or reduce risks to human life and property from natural, technical or societal hazards. Pittsfield Township has experienced hazards at varying degrees, and can expect to encounter hazards in the future. The value of a Multi-Hazard Mitigation Plan (Plan) lies in reducing future emergencies to events; by implementing mitigation strategies set forth in this Plan, the expectation is for hazard occurrences to result in fewer deaths and injuries to people, and lessened damage or destruction to structures and the environment. Response and recovery costs should also be reduced.

The Federal Emergency Management Agency (FEMA) provides assistance to local units of government when faced with disasters through the Robert T. Stafford Disaster Relief and Emergency Assistance Act the Stafford Act. Recognizing that planning for hazards is an important component of hazard preparedness, response and recovery programs, the Stafford Act was amended in 2000 to require governments to have an adopted Hazard Mitigation Plan as condition of receiving financial assistance through the FEMA Hazard Mitigation Grant Program by November of 2004.

1.1 Purpose

There are three purposes of this Plan: 1) to identify and rank hazards in Pittsfield Township; 2) to analyze areas particularly vulnerable to hazards; and 3) to identify feasible mitigation strategies that can be acted upon after adoption of the Plan. The mitigation goals and strategies should also be incorporated into the Pittsfield Township General Development Plan, and other plans, as applicable.

1.2 Plan Organization

This Plan was prepared by Washtenaw County on behalf of Pittsfield Township. Individual plans were prepared for each local unit of government in recognition of their unique circumstances and potential differences in priorities, goals and mitigation strategies. General information, such as community profile data and hazard descriptions, is contained in the County plan (Attachment 1).

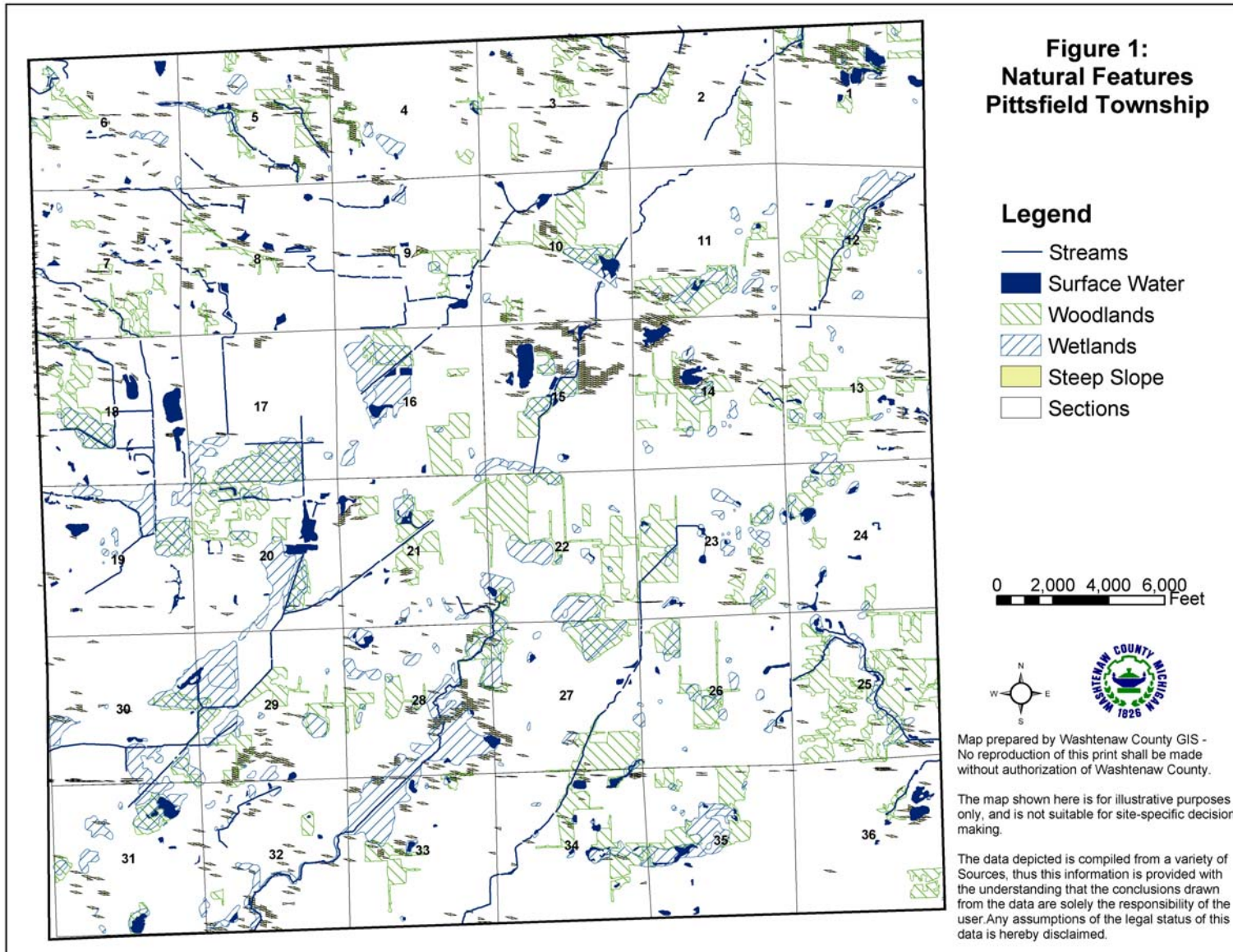
1.3 Public Participation

Representatives from Pittsfield Township worked with the Washtenaw County Emergency Management Division and Department of Planning and Environment to draft the hazard mitigation plan. An opportunity for the citizens of Township to comment on the draft plan was provided in June of 2004, when five regional planning workshops were held at various locations around the county in conjunction with the Comprehensive Plan for Washtenaw County. Another workshop was held on June 9, 2004 for commission, board and council members from every community. The draft plan was introduced and copies were available for review at every workshop. Regional workshops were advertised in the local newspapers.

The Township Board of Trustees also provided an opportunity for public comment prior to adopting the plan.

Continued public participation is encouraged through Washtenaw County through website postings, emails, and general contact with local governments. Any comments received by the County on the plan concerning Pittsfield Township will be shared with the Township.

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2.0 Community Profile

2.1 Historic Overview

Once the home of mega fauna such as mastodons and, later, buffalo, Pittsfield Township was the crossroads of native people for more than 10,000 years. In the early 1800s, the famous Sauk Indian chief, Black Hawk, crossed through Pittsfield Township with other Indians from the junction of the Rock River and Mississippi River (in Illinois) on their annual trip to Malden (in Canada) to receive tribute payments from the British. In his autobiography, Black Hawk also records coming through the township to fight on behalf of the British during the War of 1812.

The first European settlers began to arrive in Pittsfield during 1824. They struggled to establish farmsteads in the Michigan wilderness. Most of these emigrants came from New York, New England, Pennsylvania, and Virginia.

A number of black families were among the early settlers and property owners in Pittsfield Township. During the summer of 1825, Pittsfield erected the first schoolhouse in Washtenaw County. Built of logs, it was located on the northwest quarter of section 11 (south of Packard 7/10th mile west of Carpenter near the corner of Packard and Platt Roads).

By 1834, nearly two-thirds of the land in Pittsfield had been sold by the government land office in Detroit, resulting in enough residents to establish a township. By an act of the Territorial Council, Pittsfield was formally organized, and the first town meeting was held in April 1834. Township residents selected Pitt, later Pittsfield, for their township's name in honor of the British statesman William Pitt the Elder, who was an advocate of representative government prior to the American Revolution.

Pittsfield Township became a charter township in 1972; it was the first Charter Township in Washtenaw County.

Today, Pittsfield Charter Township is the third largest municipality in Washtenaw County. The present population is approximately 33,334. It is this diverse and rich heritage that the Pittsfield Township Historical Society works to document, preserve where possible, and bring alive again – through displays and websites – for the benefit of current and future generations. Historic preservation efforts include restoration of the historic Sutherland-Wilson Farm, which is owned by Pittsfield Township.

2.2 Natural Features

Woodlands and wetlands can be found throughout the community. Woodlands are made up of several forests. White Oak-Hickory Forest makes up majority of the Township. Black/White Oak Forest is found in small clusters in the Township and is fire prone. Beech-Sugar Maple Forests are concentrated in the northwest corner of the Township and are characterized by most well drained lake plains. Several wetlands exist within the Township and include Mixed Wooded Wetlands, Forested and Non-Forested Wetlands.

There are three major watersheds in the Township. The Saline River Basin drains 14 square miles to the south and southwest areas of the township. The Stoney Creek Basin consisting of nine square miles drains several eastern sections to the east. The smallest drainage area, the Huron River Basin, takes surface water toward the north and northeast.

Erodible soils are found mostly in the northern and Southern sections of the Township. Minor areas of steep slopes at 12% or greater are found the southwest and upper northwest areas of the Township.

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2.3 Land Use

Pittsfield Charter Township consists of approximately 17,990 acres. Residential uses are located throughout the township: high-density residential in the northeast, along Michigan Avenue, Carpenter Road, and Ann Arbor-Saline Road; and medium density residential subdivisions and low-density, large-lot residential uses are scattered throughout the township. Further conversion of agricultural lands, mostly found in the south, is expected.

There are three manufactured housing developments located within the Township – two off of Michigan Avenue and one off of Carpenter Road. Together, the developments provide for 600 housing units.

Commercial/Office and Industrial uses comprise approximately 4% and 5% of Township lands. These uses are located throughout the Township, generally off of the major roads.

Other Population Centers in Pittsfield Township are the Michigan Department of Correction Facilities Huron Valley Center State Prison, Washtenaw County Juvenile Detention Complex (court and jail), Washtenaw County Jail, and the Technical Rules Violations Center.

2.4 Transportation Network

Pittsfield Charter Township is located among a well-developed transportation system. US-23 runs north-south through the eastern portion of the Township, I-94 east-west through the northern portion of the Township, and Michigan Avenue bisects from the southwest to northeast. In addition, there are a series of minor arterials, urban collectors, and local streets, roads and railroads that provide convenient access to generally all areas of the Township.

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3.0 HAZARDS

Pittsfield Township is susceptible to a variety of natural, technological, and societal hazards. The purpose of this section is to rank the hazards for Pittsfield Township, analyze the risks for each hazard, and identify vulnerable areas for the Township, and appropriate goals and mitigation strategies for certain hazards.

3.1 Hazard Ranking

The ranking of hazards for Pittsfield Township is presented as Table 1. The ranking of hazards was determined on a county-wide basis, and adjusted based on input from Local Units of Government. The ranking order was developed by the Washtenaw County Emergency Management Division using a program provided by the Michigan State Police Emergency Management Division. The model takes into account worst-case scenario data for frequency of occurrence, likelihood of occurrence, significance of impact/threat, potential size of geographic area impacted and total population impacted.

3.2 Hazard Assessment

The purpose of the hazard assessment is to map out where hazards exist and gain information about their frequency of occurrence, and potential for harm using worst-case scenario estimates. Different levels of risk analysis are performed, depending on the significance of the hazard for the community:

- **Cursory:** A short statement explaining why the hazard is not a threat, prepared for hazards that have little impact or are unlikely to occur.
- **Standard:** An explanation of concerns with limited quantitative research, prepared for hazards likely to occur and impact our communities.

Table 1: Hazard Ranking

Hazard	Rank
Convective Weather (Severe Winds, Tornadoes, Lightning, Hail)	1
Hazardous Materials Incidents: Transportation	2
Hazardous Materials Incidents: Fixed Site	3
Severe Winter Weather Hazards (Snow Storms and Ice/Sleet Storms)	4
Infrastructure Failures	5
Transportation Accidents: Air and Land	6
Petroleum and Natural Gas Pipeline Accidents	7
Public Health Emergencies	8
Extreme Temperatures	9
Nuclear Attack	10
Fire Hazards: Wildfires	11
Fire Hazards: Structural Fires	12
Sabotage & Terrorism	13
Drought	14
Earthquakes	15
Nuclear Power Plant Accidents	16
Flood Hazards: Riverine/Urban Flooding	17

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- **Advanced (Vulnerability):** A vulnerability determination using probabilities, prepared for hazards that have the highest frequency of occurrence and/or the most potential to cause death, injury or damage to personal property.

Vulnerability assessments were prepared for convective weather, hazardous materials transportation incidents, hazardous materials fixed site incidents, infrastructure failures and severe winter weather hazards. The goal is to quantitatively measure the threat experienced by Washtenaw County communities. By placing a monetary value on a hazard, a cost-benefit comparison can be made: the benefit of implementing a mitigation strategy compared to the cost of the hazard event.

Table 2 presents the results of the vulnerability assessment. The value of the vulnerability assessment is to provide a cost by which the mitigation strategies may be compared. A discussion of the determination is provided in the hazard section of the County Plan (Section 3.2). The methodology for each is presented in Appendix A of the County Plan.

Table 2. Vulnerability Assessment Summary

Rank	Hazard	Estimated Annual Cost
#1	Convective Weather	
	Tornado	\$5,078,755
	Severe Winds and Lightning	\$90,242,418
	Hail Storm	\$3,738,153
#2	Hazardous Material Transportation Incidents	\$6,838,963
#3	Hazardous Material Fixed Site Incidents	\$2,913,038
#4	Severe Winter Weather	\$36,191,763
#5	Infrastructure Failure	\$6,139,214

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4.0 Hazard Goals and Strategies

The following sections present goals and strategies by hazard. Figure 2 presents the assets and hazards identified for Pittsfield Township, and may be referred to in the following sections. The Goals and Strategies are not an inclusive list; rather the Goals and Strategies are those that the Township is focusing on at this time.

The repetition of strategies reflects the need for their implementation, not the duplication of services. For example, distribution of educational materials should not be performed several times, throughout the year per hazard, rather one mailing regarding family preparedness kits would address all hazards for which this strategy is listed..

4.1 Non-Hazard Specific Goals and Strategies

Goal: Integrate mitigation strategies into the Township General Development Plan

Mitigation Strategy: Plans

- Establish a committee charged with amending the General Development Plan to include hazard mitigation goals and strategies, as applicable.

4.2 Hazard Specific Goals and Strategies

Convective Weather

Areas particularly vulnerable to convective weather events in Pittsfield Township include:

- The senior citizen care “American House” located on Carpenter Road which holds about 102 different units.
- The Apartment Building “Carpenter Place” which is designed for people older than 62 years and people with disabilities (approximately 150 units)

- The three manufactured housing communities: Saline Meadows (148 units); Coachville Mobile Park (121 units); and Arbor Meadows (409 units).

A tornado touch-down at a population centers would result in a substantial loss.

Goal: Reduce the loss of life and injury, and damage to public property, and provide a safe environment to residents in the event of a convective weather hazard event.

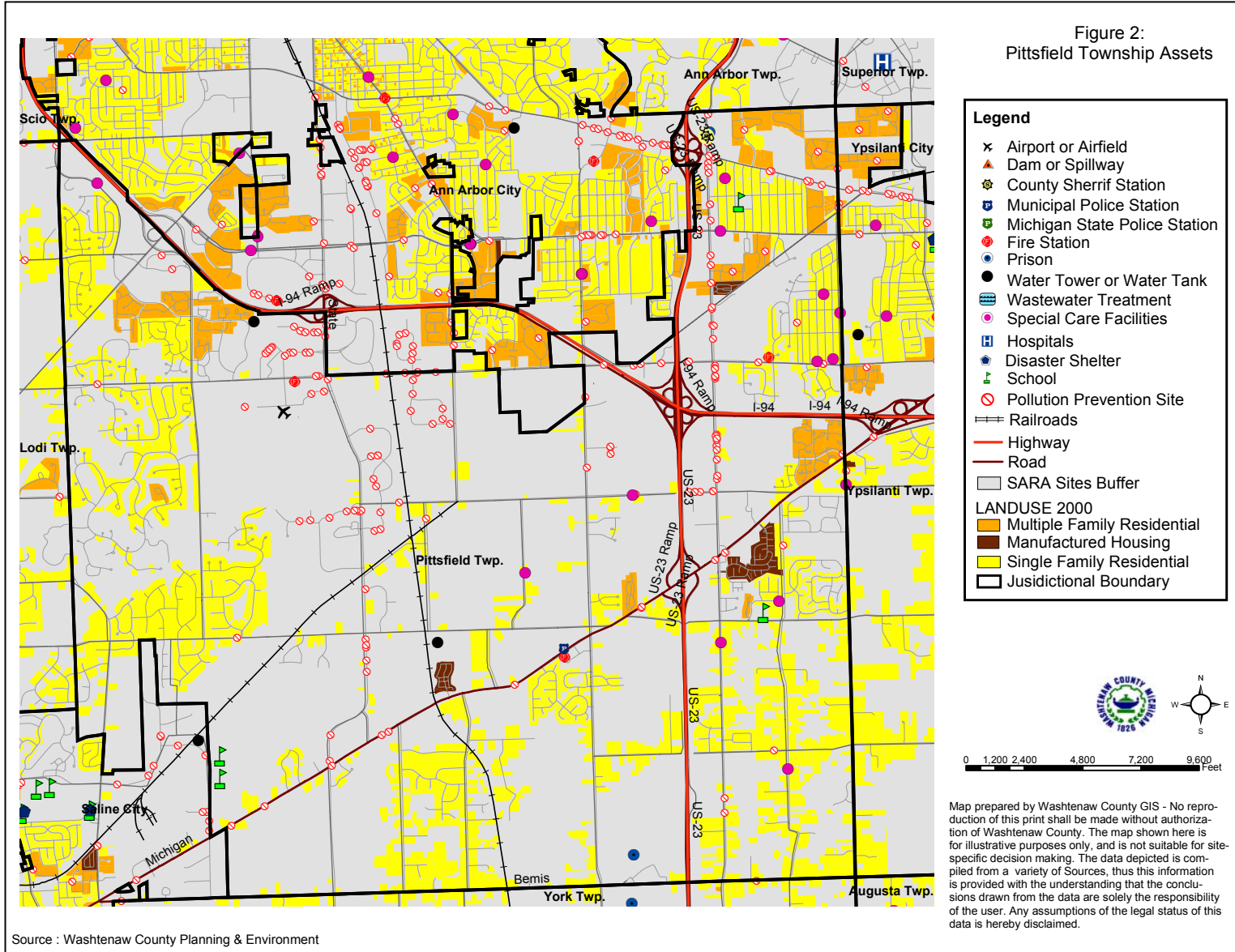
Mitigation Strategy: Warning Sirens

- Secure funding for installation of warning sirens. Currently portions of the Township are covered by a warning siren (see Figure 3). The sirens are located in the City of Ann Arbor and in the City of Saline. The entire southeast portion is not within reach. New sirens should be strategically located such that residents living in the southern part of the township are reached, in addition to schools, special care facilities and manufactured housing facilities (Figure 2).

Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. At a minimum generators should be installed at key Township facilities, such as the Township Hall and the four sanitary lift stations. Equipping the Township Hall and other buildings will enable the Township to function and provide assistance to residents and travelers during or after a hazard event. Equipping the lift stations can prevent a major health hazard by ensuring that sanitary waste leaves the Township. Other buildings that may be in need of generators are the special care facilities.

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Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials to Township residents, informing them on actions to take during an event, or actions to minimize damage caused by an event (see Family Preparedness Kit information box). Included should be limiting water and sewer usage, such as unnecessary lawn watering, car washing, or laundering. Methods to disseminate the information include: an on-line link to Washtenaw County's Emergency Management Division website; mention within an existing newsletter; a separate mailing; or an enclosure in an annual Township mailing (e.g. tax bills).

Mitigation Strategy: Maintenance

- Distribute annual reminders to ground utility providers, encouraging them to keep power lines clear of trees and tree limbs. This would reduce the chance of electrical power failure for Townships residents and businesses.
- Prepare a storm debris clean-up plan to expedite post-hazard clean-up processes. Work with the Washtenaw County Road Commission to eliminate large tree limbs overhanging roadways, particularly main emergency routes.

Mitigation Strategy: Training

- Continue to work with Washtenaw County Division of Emergency Management on weather spotter training and coverage. Training is free to residents 18 years of age or older.

Hazardous Material Transportation Incidents

Due to the number of manufacturing facilities located in Pittsfield Township, the potential for a hazardous materials transportation accident are higher than in many other communities. The most vulnerable areas in the Township are major highways and interchanges including I-94, US-23 and

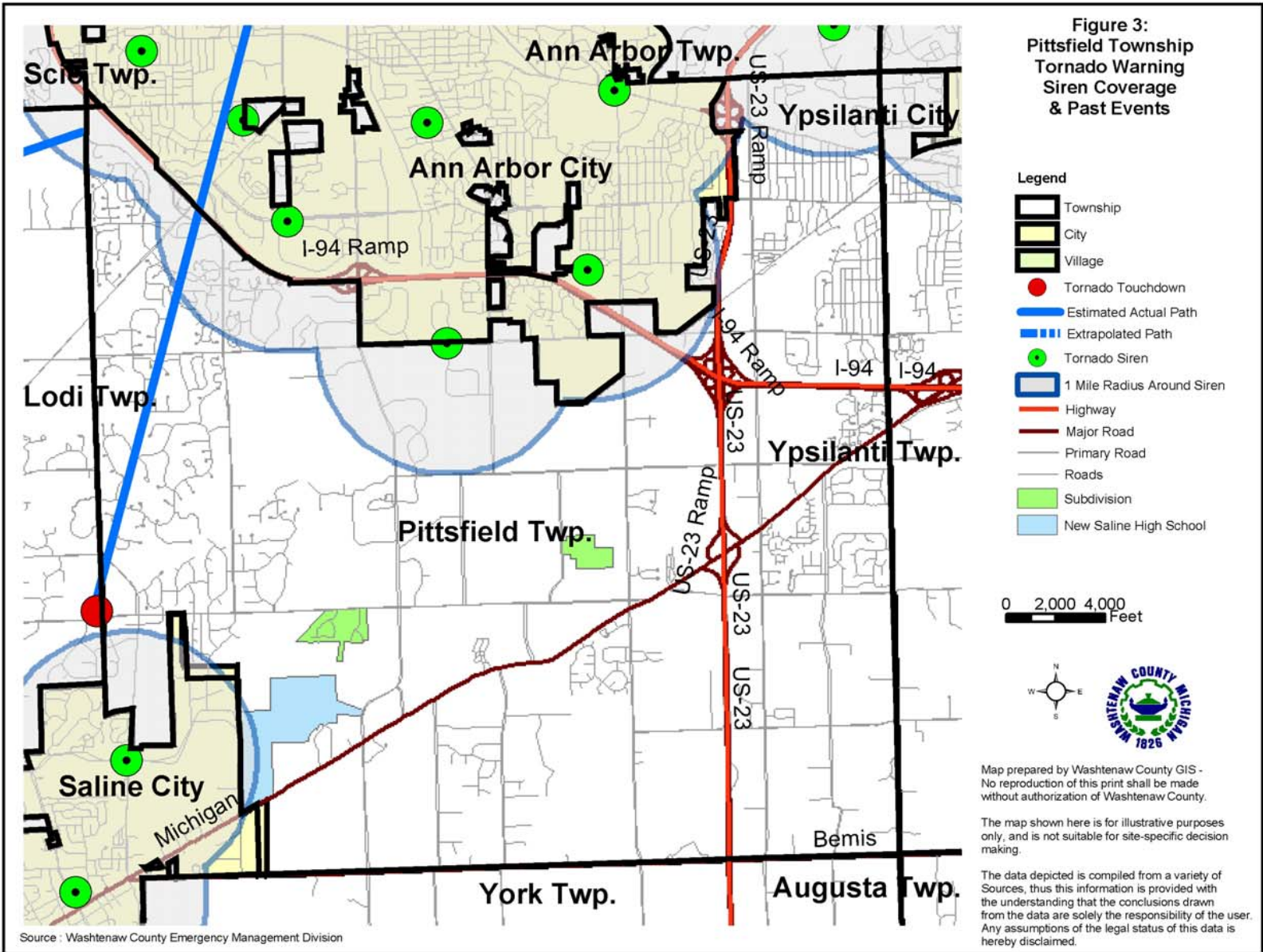
Family Preparedness

1. Have Emergency Supplies at the ready:
 - A three-day supply of water one gallon/person/day and food that won't spoil
 - One change of clothing, footwear, and blanket/sleeping bag per person
 - First aid kit including family prescription medications
 - Tools: flashlight, battery-powered radio and extra batteries
 - Extra car keys, credit cards, cash or travelers checks
 - Sanitation supplies
 - Special items for infant, elderly or disabled family members
 - Extra pair of glasses
 - Locate the fuse box water service main and natural gas main and learn how to turn on and off.
2. Create a disaster plan where to meet, contact numbers, who will take care of the family pet, take first aid, learn how to use a fire extinguisher, etc.
3. Practice the Plan and maintain supplies!

If having electric power is extremely important to you, consider having a qualified electrician install an emergency generator before a disaster strikes!

For more information, see FEMA's website at <http://www.fema.gov/pdf/library/yfdp.pdf>

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Michigan Avenue. In particular, I-94 which is the major east-west corridor for all of southeast Michigan, and US-23 which is a major north south corridor and untold amounts of hazardous material travel this road daily.

Mitigation Strategy: Warning Sirens

- Secure funding for installation of warning sirens. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Road Regulations/Notifications

- Work with the Washtenaw County Road Commission and the State of Michigan to provide safer roadways, resulting in the decrease of accident frequency and severity.
- Ensure that officers are following and enforcing Michigan Department of Transportation (MDOT) regulations for hazardous material transportation, as well as being diligent in enforcement of weight and travel restrictions will reduce the hazardous materials transportation accidents in Pittsfield Township.
- Continue diligent enforcement of weight and travel restrictions.
- Ensure appropriate agencies are notified when spills occur (i.e. hazardous materials enter sanitary storm sewers or waterways).
- Amend Township specifications to include procedures for on-site containment in response to hazardous materials spill incidents.

Mitigation Strategy: Training

- Continue to train, equip and maintain the Hazardous Material Response Team through the Pittsfield Township Fire Department, and support the Washtenaw County Hazardous Materials (HazMat) team.
- Continue to expand emergency response plans, and train and equip police to ensure safe, quality responses during an emergency.

Mitigation Strategy: Public Education

- Distribute Emergency Preparedness information. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Hazardous Spills Expense Recovery Ordinance

- Adopt the Hazardous Spills Expense Recovery Ordinance, a vehicle whereby a local unit of government may recover costs of response and recovery to a release of hazardous materials.

Hazardous Materials Fixed Site Incidents

There are several facilities located in Pittsfield Township that store hazardous materials, and therefore have the potential for impacting people and causing environmental impact.

Goal: Reduce the risks of hazardous material fixed site incidents in the Township by increasing the ability to respond and minimizing the impacts to the citizens, environment and economy.

Mitigation Strategy: Warning Sirens

- Secure funding for installation of warning sirens. See strategy under Convective Weather for further discussion.

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Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Submeter GPS/GIS

- Locate the Township sanitary water and sewer facilities to ensure that these areas are identified and quickly protected in the event of a fixed site incident.

Mitigation Strategy: Training and Support

- Ensure that the Washtenaw County and Saline Fire Department Hazardous Material Response Teams are knowledgeable of the locations and chemicals stored at Sara Title III facilities facilitates response to incidents.
- Support and cooperate with the Washtenaw County Pollution Prevention Program.
- Continue to participate in the Washtenaw County Emergency Action Guidelines.
- Ensure appropriate agencies are notified when spills occur (i.e. hazardous materials enter sanitary storm sewers or waterways).
- Amend Township specifications to include procedures for on-site containment in response to hazardous materials spill incidents.

Mitigation Strategy: Hazardous Spills Expense Recovery Ordinance

- Adopt the Hazardous Spills Expense Recovery Ordinance, a vehicle whereby a local unit of government may recover costs of response and recovery to a release of hazardous materials.

Mitigation Strategy: Public Education

- Distribute Emergency Preparedness information. See strategy under Convective Weather for further discussion.

Severe Winter Weather Hazard

Above ground power supply, coupled with mature trees can be a disaster when heavy snows or freezing rain occurs. The weight of the frozen precipitation causes tree limbs to fall on power lines, causing power outages, which is a significant problem. Loss of power in the winter generally means loss of heat for citizens. Falling tree limbs also damage property, block emergency routes and roadways, endanger lives and are very costly to clean up and remove.

Goal: Reduce the damage and impacts caused by severe winter weather hazards continue to reduce the impact of such an event on the community.

Mitigation Strategy: Maintenance

- Distribute annual reminders to ground utility providers. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Public Education

- Distribute Emergency Preparedness information. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. See strategy under Convective Weather for further discussion.

Infrastructure Failures

Goal: Decrease the Township's vulnerability to infrastructure failures and continue to strengthen the Township's ability to assist its citizens during an event.

Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. See strategy under Convective Weather for further discussion.

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Mitigation Strategy: Maintenance

- Distribute annual reminders to ground utility providers. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Public Education

- Distribute Emergency Preparedness information. See strategy under Convective Weather for further discussion.

Petroleum and Natural Gas Pipeline Accidents

There are two pipelines that run through the Township. The most vulnerable areas are the subdivisions located in close proximity to the pipelines, such as Centennial Park and Farms, Pittsfield Glen (proposed), Warner Creek, Harwood Farms (proposed), Svo Ridge, Lohr Lake, East Horizons and Rolling Meadows (Beacon Square).

Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Training

- Continue to train, equip and maintain a Hazardous Material Response Team, and collaborate with the Washtenaw County HazMat team.
- Hold annual pipeline awareness meetings for fire and police officials.

Mitigation Strategy: Public Education

- Distribute Emergency Preparedness information. See strategy under Convective Weather for further discussion.

Mitigation Strategy: Enforcement

- Support and enforce buffer distances from pipelines to minimize the population impacted in the event of a Petroleum and Natural Gas Pipeline Accident. Residential development near the location of petroleum and natural gas pipelines is a growing issue.

5.0 Implementation, Funding and Monitoring

The purpose of this plan is to identify mitigation strategies that will be implemented before, during or after a disaster to permanently eliminate or reduce risks to human life and property from natural, technical or societal hazards. The following sections present implementation actions, funding sources, and the method for monitoring the plan.

5.1 Implementation

The following schedule is given for hazard mitigation strategies described in Section 4.0. Completion dates have not been included as such dates are subject to uncertain factors, and will only begin after the mitigation strategy has been approved. While all strategies are important, priority is has been given to those that may be funded by a FEMA hazard mitigation grant program (see Section 5.2). Action on strategies will depend upon staff, resource and funding availability.

High Priority Strategies

Warning Sirens

Responsible Agencies: Pittsfield Township and Washtenaw County Emergency Management Division

Estimated Cost: \$18,000 for siren and first year of maintenance fees, \$500 annually thereafter (does not include replacement parts).

Emergency Generators

Responsible Agencies: Pittsfield Township

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Estimated Cost: \$800,000 for all Township facilities (\$50,000 per generator).

Other Important Strategies

Training and Education

- Continued training, equipment and maintenance for the Washtenaw County and City of Saline Fire Department Hazardous Material Response Team.
- Encourage residents and businesses to work with the Washtenaw County Pollution Prevention Program.
- Continue to participate in the Washtenaw County Emergency Action Guidelines.
- Ensure appropriate agencies are notified when spills occur (i.e. hazardous materials enter sanitary storm sewers or waterways).
- Amend Township specifications to include procedures for on-site containment in response to hazardous materials spill incidents.

Responsible Agency: Pittsfield Township

Estimated Cost: \$30,000 annually for training; costs for other strategies are to be determined.

Hold Annual Pipeline Awareness Meetings for Fire and Police Officials

Responsible Agency: Pittsfield Township

Estimated Cost: Staff time.

Locate and Map Township Sanitary Water and Sewer Facilities with Submeter GPS/GIS,

Responsible Agency: Pittsfield Township

Estimated Cost: Staff time.

Maintenance Reminders to Utility Providers

- Prepare a storm debris clean-up plan

Responsible Agency: Pittsfield Township

Estimated Cost: \$2,000.

Adopt Spill Expense Recovery Ordinance

Responsible Agency: Pittsfield Township

Estimated Cost: Staff time.

Public Education (brochures, mailings regarding Family Preparedness kits)

Responsible Agency: Pittsfield Township

Estimated Cost: \$15,000 annually.

Amend Master Plan to incorporate hazard mitigation goals, strategies

Responsible Agency: Pittsfield Township

Estimated Cost: Staff time.

Road Safety, Enforcement

- Work with WCRC and MDOT to provide safer roadways when possible.
- Ensure continued diligent enforcement of MDOT regulations for Hazardous Material transportation, and weight and travel restrictions.
- Ensure appropriate agencies are notified when spills occur (i.e. hazardous materials enter sanitary storm sewers or waterways).
- Amend Township specifications to include procedures for on-site containment in response to hazardous materials spill incidents.

Responsible Agency: Pittsfield Township

Estimated Cost: Staff time.

5.2 Sources of Financial Assistance

Implementation of the mitigation strategies is often dependent on funding assistance from Federal and State sources. FEMA provides funding for “bricks-and-mortar” projects through the hazard mitigation grant programs. These include the Hazard

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Mitigation Grant Program, Pre-Disaster Mitigation Assistance Program, and the Flood Mitigation Assistance Program.

FEMA emphasizes the implementation of structural mitigation strategies. The strategies that are a priority for FEMA are not a priority for Pittsfield Township at this time. The strategies listed in this plan that qualify for FEMA funds include emergency generators and warning sirens.

Financial support for other mitigation strategies proposed in this plan may be sought through alternative funding sources. For example, funds for public outreach, equipment and training may be obtained through the FEMA Emergency Management Performance Grant (EMPG). Projects may be implemented with the assistance of non-profit organizations, or funds secured from Community Foundations. There are many State and Federal programs that are available to local governments, as provided in Attachment 2.

5.3 Monitoring of the Plan

The plan will be monitored on a regular basis, and is the responsibility of the Pittsfield Township Supervisor. The plan will be an annual agenda item for the Pittsfield Board of Trustees. At a minimum, during its review, the Board will discuss the monitoring of the plan, the number of projects pursued, or reasons for lack of pursuit for approved projects. Prior to the meeting, the Washtenaw County Emergency Management Division can be contacted for updates or recommended amendments to the plan.

To assist with the annual evaluation and review of the plan, the Township may consider forming a local hazard mitigation committee. The committee could also be charged with identifying methods of obtaining public input.

Although review of the plan will occur annually, and a formal revision may not be needed each year, an update of the plan will be prepared every five years, based on annual reviews, amendments, monitoring, evaluation and accumulation of official feedback and public input. The revised plan will again be adopted by the Pittsfield Township Board of Trustees.

**Attachment 1
County Hazard Plan**

**Attachment 2
Alternative Funding Sources**

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
FEDERAL SOURCES																											
Business and Industry Loans	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
CDC-Investigations and Technical Assistance																		√									√
CEPP Technical Assistance Grants Program											√	√						√								√	√
Community Assistance Program-State Support Services Element (NFIP)								√	√	√																	√
Community Development Block Grant/Economic Development Initiative									√	√			√										√				√
Community Development Block Grant/Entitlement Grants	√	√	√	√	√	√	√	√	√	√	√	√	√					√	√	√	√	√	√	√	√	√	√
Community Development Block Grant/Small Cities Program	√	√	√	√	√	√	√	√	√	√	√	√	√					√	√	√	√	√	√	√	√	√	√
Community Development Block Grant/State's Program	√	√	√	√	√	√	√	√	√	√	√	√	√					√	√	√	√	√	√	√	√	√	√
Community Disaster Loans	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Community Facilities Loans and Grants	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Community Outreach Partnership Center Program	√	√	√	√	√	√	√	√	√	√	√	√	√					√	√	√	√	√	√	√	√	√	√
Conservation Reserve Program									√	√													√		√	√	√
Cooperative Forestry Research							√																				√
Cora Brown Fund	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√
Direct Housing Natural Disaster (Very Low/Low Income Loans)						√	√		√												√	√	√		√	√	√
Disaster Housing Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Disposal of Federal Surplus Property (Transfers)									√																		
Economic Adjustment Assistance								√	√	√													√		√	√	√
Economic Development Tech Assistance									√																		√
Emergency Advance Measures for Flood Protection								√	√	√																	√

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
FEDERAL SOURCES																											
Emergency Community Water Assistance Grants		√							√		√		√					√	√							√	
Emergency Conservation Program		√							√													√			√	√	
Emergency Flood and Shelter National Board Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Emergency Management Institute-Resident Ed Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Emergency Management Institute-Training Assistance	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Emergency Management Performance Grants	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Emergency Management-State and Local Assistance	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Emergency Operations Flood Response and Post-Flood Response								√	√	√																√	
Emergency Rehabilitation of Flood Control Works								√	√																	√	
Engineering Grants	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Farmland Protection Program									√																	√	
Fire Suppression Assistance							√																			√	
Fisheries Disaster Relief		√					√	√	√	√	√	√							√							√	
Flood Insurance								√	√	√																	√
Flood Mitigation Assistance									√	√																√	
Flood Plain Management Services								√	√	√																√	
Food Control Projects								√	√																	√	
Forestry Incentives Program																						√			√	√	
Forestry Research									√	√												√			√	√	
Grants for Public Works and Economic Development								√	√	√			√													√	

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
FEDERAL SOURCES																											
Grants-in-Aid for Railroad Safety-State Participation												√												√			√
Habitat Conservation																											√
Hazard Mitigation Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
HazMat Training Program for Implementation of SARA											√	√															√
Health Program for Toxic Substances and Disease Registry											√							√									√
Highway Planning and Construction													√														√
Historic Preservation Funds Grants-In Aid						√			√	√										√	√	√	√		√		√
HOME Investment Partnerships Program									√	√										√	√	√					√
Hydrologic Research		√						√	√	√																	√
Individual and Family Grant Program		√	√	√			√	√	√	√																	√
Planning Grants (HazMat Emergency Preparedness Grant)											√	√															√
Motor Carrier Safety												√															√
National Dam Safety Program							√																				√
National Pollutant Discharge Elimination System Related State Program Grants																√	√	√									√
National Urban Search and Rescue Response System			√										√						√						√		√
North American Wetlands Conservation Fund								√	√																		√
Nursing Homes						√																					√
Planning (Land and Water Conservation Fund Grants)									√																		√
Physical Disaster Loans	√		√		√	√			√	√			√						√	√	√	√	√		√	√	√
Pipeline Safety																√	√										√

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
FEDERAL SOURCES																											
Project Impact: Building Disaster-Resistant Communities	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Protection Clearing and Straightening Channels									√																		√
Protection of Essential Highways, Highway Bridge Approaches, and Public Works								√	√																		√
Public Assistance Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Public Health and Social Services Emergency Fund (Post-Declaration Only)																		√									√
Public Telecommunications Facilities Planning and Construction																									√		√
Railroad Safety												√												√			√
Resource Conservation and Development		√	√	√			√		√	√																	√
Rivers, Trails, and Conservation Assistance									√																		√
Rural Business Opportunity Grants									√																		√
Rural Development Grants									√				√														√
Rural Electrification Loans													√									√	√	√	√	√	√
Rural Housing and Economic Development	√	√	√	√	√	√	√	√	√	√	√	√	√					√	√	√	√	√	√	√	√	√	√
Rural Housing Site Loans and Self-Help Housing and Development Loans									√																		√
Snagging and Clearing for Flood Control								√	√																		√
Soil and Water Conservation		√	√	√			√		√	√																	√
State and Community Highway Safety													√											√			√
State Domestic Preparedness Equipment, Support Program																			√								√
Superfund State Site-Specific Cooperative Agreements											√							√									√
Superfund Technical Assistance Grants for Citizen Groups at Priority Sites											√																√
Surveys, Studies, Investigations and Special Purpose Grants											√	√			√	√	√	√									√

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petro/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
FEDERAL SOURCES																											
Technology Development for Environmental Management												√			√												√
Very Low Income Housing Repair Loans/Grants				√		√	√		√												√	√	√			√	√
Very Low to Moderate Income Housing Loans				√		√	√		√												√	√	√			√	√
Water and Waste Disposal System for Rural Communities									√		√		√					√	√								√
Water/Waste Disposal Loans/Grants									√		√		√					√									√
Watershed Protection and Flood Prevention								√	√	√								√									√
Watershed Surveys and Planning		√							√																		√
Weatherization Assistance for Low-Income Persons				√																							√
Wetlands Protection-Development Grants									√	√																	√
Wetlands Reserve Program									√	√																	√
Wildlife Habitat Incentive Program									√																		√

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
STATE OF MICHIGAN																											
Department of Agriculture																											
Energy Conservation Program									√														√			√	√
Groundwater Stewardship Program											√							√								√	√
Intercounty Drain Program (available to Drain Commissioner only)								√	√	√																	√
Economic Development Corporation																											
Community Development Block Grant									√	√			√													√	
Urban Land Assembly									√																	√	
Environmental Quality																											
Abandoned Well Mgmt. Program																		√								√	
Alternate Water Supply Replacement Program									√	√	√		√					√								√	
Brownfield Redevelopment Grants											√							√								√	√
Drinking Water Revolving Loan Fund													√					√	√							√	
Municipal Landfill Cost-Share Grant Program																		√								√	
Non-community Water Supply Program Grant																		√								√	
Scrap Tire Collection Site Cleanup Grants					√																					√	
State Revolving Loan Fund									√	√			√					√								√	
Wellhead Protection Program									√	√								√								√	
Wetland Program Development									√	√																√	

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
STATE OF MICHIGAN																											
Housing Development Authority																											
Community Development Block Grants/Housing Resource Fund						√			√	√											√		√		√	√	
Home/Property Improvement Loans						√			√	√											√		√		√	√	
Department of Natural Resources																											
Habitat Improvement Fund Project Grants									√																		√
Land and Water Conservation Fund									√																		√
Natural Resources Trust Fund						√			√																		√
Recreational Trails Program Grants									√																		√
Urban and Community Forestry Program																						√	√		√	√	
Volunteer Fire Assistance					√	√	√																				√
State Police																											
Emergency Management Performance Grants	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Flood Mitigation Assistance									√	√																	√
Hazard Mitigation Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Individual and Family Grant Program									√	√			√														√

Pittsfield Township

Funding Source	Civil Disturbance	Drought	Earthquake	Extreme Temperature	Scrap Tire Facilities	Structural Fire	Wildfire	Dam Failure	Flooding: Riverine	Flooding: Urban	Hazardous Materials Incidents - Fixed Site	Hazardous Materials Incidents - Transportation	Infrastructure Failure	Nuclear Attack	Nuclear Power Plant Incidents	Oil/Nat Gas Well Incidents	Petrol/Nat Gas Pipeline Incidents	Public Health Emergencies	Sabotage/Terrorism	Hail	Lightning	Severe Winds	Severe Winter Weather	Transportation Accidents	Tornado	Financial Assistance	Technical Assistance
STATE OF MICHIGAN																											
State Police (continued)																											
Interagency HazMat Public Sector Training and Planning Grants (HazMat Emergency Preparedness Grant)											√	√		√	√	√	√									√	
Project Impact	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Public Assistance Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Department of Transportation																											
Rail Loan Assistance Program												√	√													√	
Trans. Econ. Development Fund								√	√	√																√	
Department of Treasury																											
Municipal Bond Authority-Local Government Loan Program				√		√			√	√			√						√	√	√	√	√	√		√	
Municipal Bond Authority-State Aid Note Program				√		√			√	√			√						√	√	√	√	√	√		√	