

# HAZARD MITIGATION PLAN for the City of Saline

September 2004



**City of Saline  
Washtenaw County, Michigan**

**RESOLUTION ADOPTING THE HAZARD MITIGATION PLAN  
FOR LOCAL UNITS OF GOVERNMENT**

**WHEREAS**, the City of Saline, 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**, the City of Saline 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 the City of Saline.
2. The Hazard Mitigation Plan will be an annual agenda item for the City Council of the City of Saline 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 Saline City Council.
3. The Hazard Mitigation Plan will be updated every five years as required by FEMA, with the assistance of Washtenaw County.

4. The City Manager 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.

MOVED Ping, SUPPORTED Martin, that the above resolution be adopted.

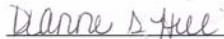
AYES: Driskell, Hess, Law, Little, Martin, Ping

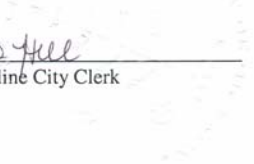
NAYES: None

ABSENT: Kuss

Resolution declared adopted at a regular meeting of the Saline City Council held on September 13, 2004 in the Saline City Hall.

I hereby certify that the foregoing resolution is a true and exact copy of the original now on file in my office in the City of Saline.

  
\_\_\_\_\_  
Dianne Hill, Saline City Clerk



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- Attachment 2: Federal and State Funding Sources



## 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. The City of Saline 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 The City of Saline; 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 City of Saline General Development Plan, and other plans, as applicable.

## 1.2 Plan Organization

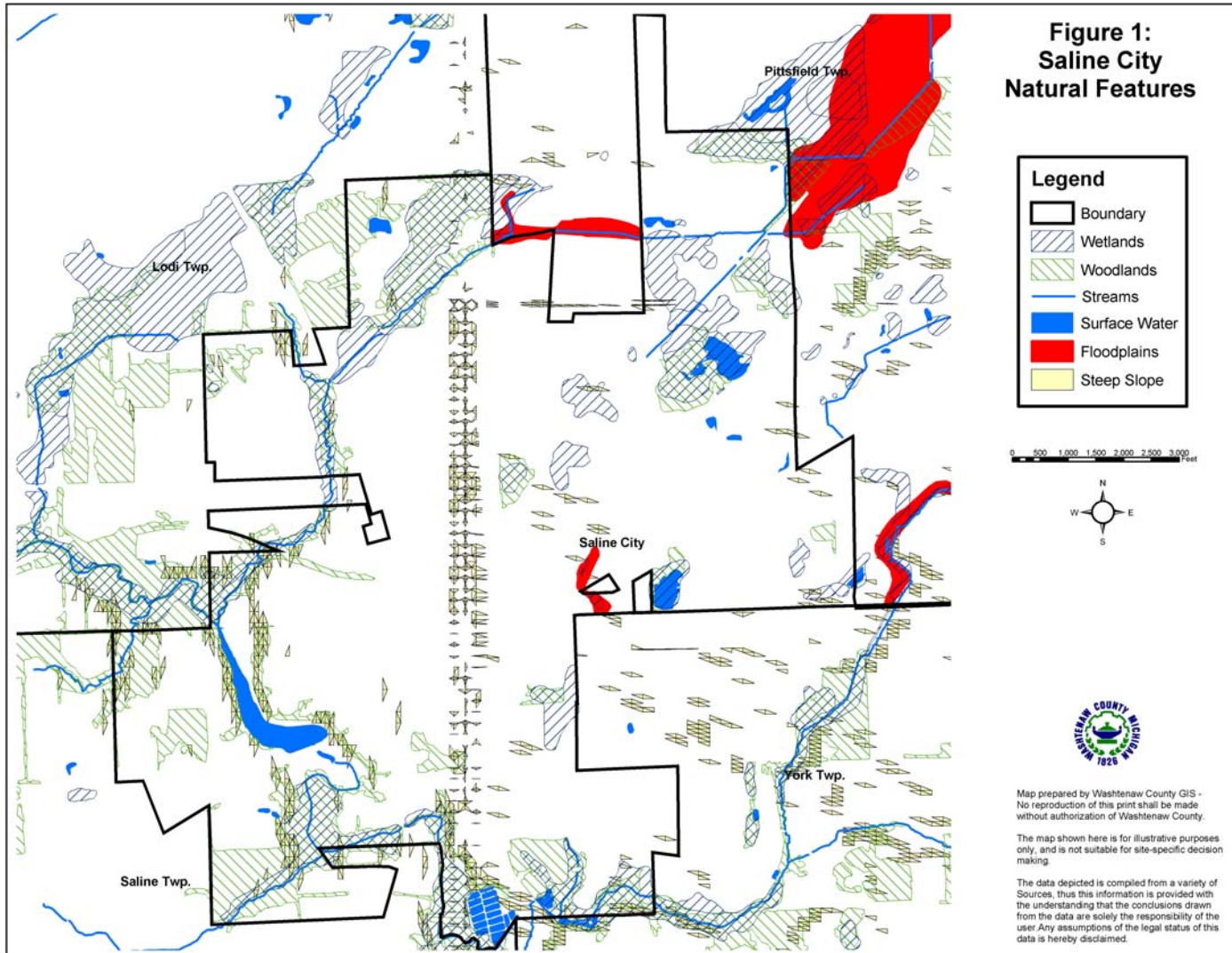
This Plan was prepared by Washtenaw County on behalf of The City of Saline. Individual plans were prepared for each local unit of government in recognition of their unique circumstances and potential differences in priorities, goals and mitigation strategies. General information, such as community profile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

## 1.3 Public Participation

Representatives from The City of Saline 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 City 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 City Council also provided an opportunity for public comment prior to adopting the plan on September 13, 2004.

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 The City of Saline will be shared with the City.



# City of Saline

## 2.0 Community Profile

### 2.1 Historic Overview

The City of Saline became an incorporated village in 1866. During the following years the village grew along the Great Sauk Trail which is known as US-12 today. French explorers then named the area Saline, since it was known for its salt springs. The area was largely agricultural, and the dispersion of local produce spurred the construction of the railroad that was ready for use in July 4, 1870. Although the railroad went bankrupt by 1875, the resulting growth was well underway. By 1931, the Village became a City.

### 2.2 Natural Features

The Saline River is a valued natural feature in the City of Saline, flowing across the southwest corner and to smaller drains. Floodplains are associated with the Saline River.

There are no groundwater recharge areas within the City. Designated wetland areas can be found along the southern part of the boundary, wooded areas are located along the periphery.

The topography is relatively flat. The soils in the community are suitable for development, and some have severe septic limitations; steep slopes are located in the northern portion of the City.

### 2.3 Land Use Patterns

The City of Saline comprises 2,660 acres. Most of the land is used for single family residential (39%), and consists of historic homes in the downtown and suburban subdivisions in the outlying areas. Only 4% of the lands are taken up by five apartment-style/multiple-family residential sites. There is one mobile home park in the City that includes 81 home sites. Light and heavy industrial uses can be found in the northeastern



Downtown Saline

portion of the City. These include the Ford Plant, and three industrial parks south of the downtown. Schools are also located throughout the City.

### 2.4 Transportation Network

The transportation network consists of minor arterials, urban collector and local streets and roads. US-12, the former Great Sauk Trail, runs southwest to northeast through the City, from Clinton (Lenawee County) to Ypsilanti City. The Ann Arbor Railroad terminates in Saline at Maple Road. There are no interstate highways or airports in the City.

## 3.0 HAZARDS

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

### 3.1 Hazard Ranking

The ranking of hazards for The City of Saline 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	Ranking
Convective Weather (Severe Winds, Tornadoes, Lightning, Hail)	1
Hazardous Materials Incidents: Transportation	2
Hazardous Materials Incidents: Fixed Site	3
Infrastructure Failures	4
Severe Winter Weather Hazards (Snow Storms and Ice/Sleet Storms)	5
Transportation Accidents: Air and Land	6
Extreme Temperatures	7
Flood Hazards: Riverine/Urban Flooding	8
Petroleum and Natural Gas Pipeline Accidents	9
Fire Hazards: Wildfires	10
Fire Hazards: Structural Fires	11
Flood Hazards: Dam Failures	12
Public Health Emergencies	13
Sabotage & Terrorism	14
Drought	15
Earthquakes	16
Nuclear Power Plant Accidents	17
Civil Disturbances	18
Nuclear Attack	19
Oil and Gas Well accidents	20
Fire Hazards: Scrap Tire Fires	21

# City of Saline

- **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.

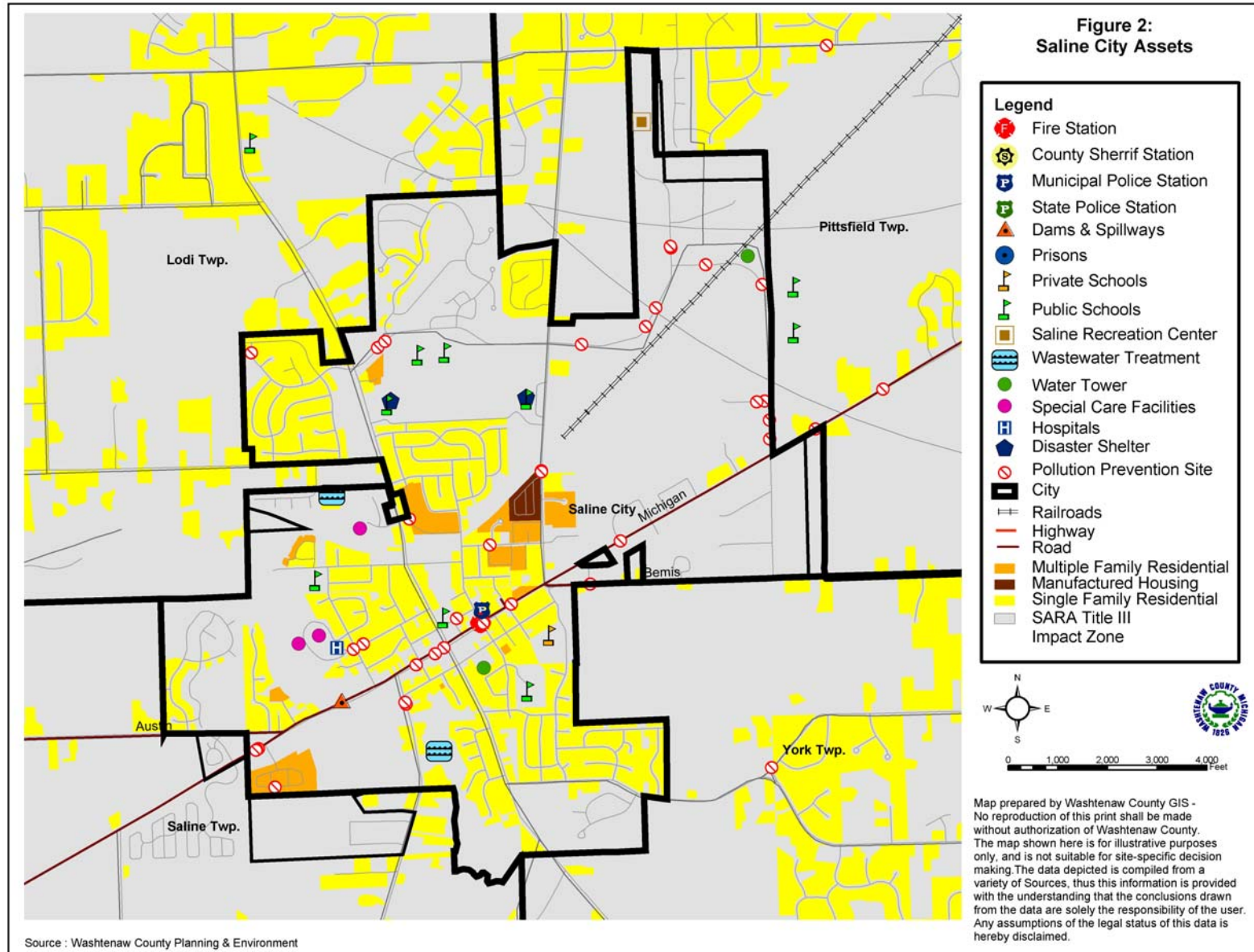
Vulnerability assessments were prepared for convective weather, hazardous materials transportation incidents, hazardous materials fixed site incidents, infrastructure failures and severe winter weather hazards. The goal is to quantitatively measure the threat experienced by Washtenaw County communities. 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
<b>#1</b>	<b>Convective Weather</b>	
	Tornado	\$5,078,755
	Severe Winds and Lightning	\$90,242,418
	Hail Storm	\$3,738,153
<b>#2</b>	<b>Hazardous Material Transportation Incidents</b>	\$6,838,963
<b>#3</b>	<b>Hazardous Material Fixed Site Incidents</b>	\$2,913,038
<b>#4</b>	<b>Severe Winter Weather</b>	\$36,191,763
<b>#5</b>	<b>Infrastructure Failure</b>	\$6,139,214

# City of Saline



## 4.0 Hazard Goals and Strategies

The following sections present goals and strategies by hazard. Figure 2 presents the assets and hazards identified for The City of Saline, 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 City 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 City General Development Plan

Objective: Amend plan goals, objectives and policies to include mitigation strategies.

#### Mitigation Strategy: Plans

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

### 4.1 Hazard Specific Goals and Strategies

#### **Convective Weather**

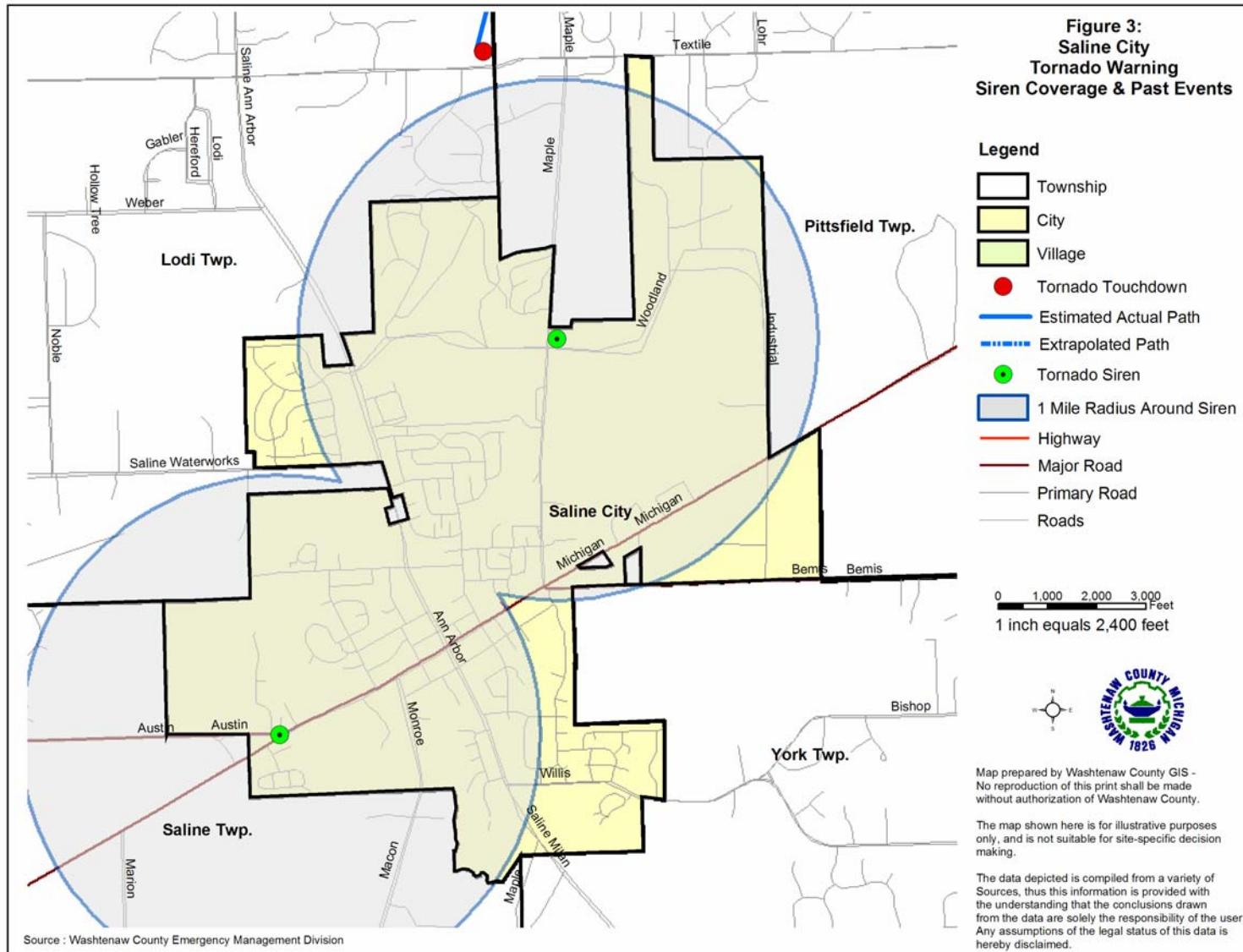
There are a number of facilities that hold large numbers of people and are therefore particularly vulnerable in an event of a convective weather hazard event. The area of most concern is the Manufactured Housing Community located on North Maple. Fortunately, most of the City is reached by a siren. Additional sirens would overlap into either Lodi, Pittsfield or York Townships, and locations should be coordinated with these jurisdictions.

#### **Family Preparedness Kits**

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 website at <http://www.fema.gov/pdf/library/yfdp.pdf>



# City of Saline

Goal: Reduce the City's vulnerability to convective weather storm hazards, minimize loss of life and injury, and damage to public property

## Mitigation Strategy: Warning Sirens

- Secure funding for warning sirens. The City has two warning sirens which reach most City residents and businesses. Additional sirens would overlap into adjacent township (Lodi, Pittsfield or York), therefore the City should coordinate siren locations with these jurisdictions.

## Mitigation Strategy: Emergency Generators

- Install emergency generators at the Evangelical Home, Millpond Manor and Brecon Village special care facilities as these are places with residents with medical conditions that may depend on power.

## Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials to City 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). 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 City 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.

## 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.

## Mitigation Strategy: Manufactured Housing Communities (MHC)

- Assist unit owners of existing units with proper fastening of units if not already anchored properly.
- Work with park owner on installing a shelter for the community.

## **Hazardous Material Transportation Incidents**

### Vulnerable areas

The City of Saline is vulnerable to hazardous materials transportation accidents. Highway US-12 carries truck traffic through the southeast portion of the County and traverses the City's downtown. An incident in the City center involving hazardous materials could easily impact the creeks, as well as people and businesses in the immediate area.

Goal: Reduce the risk of damage, loss of life, and other costs resulting from hazardous material transportation incidents by enforcing regulations providing appropriate training to responders, and ensuring citizens are prepared and aware of actions to take in the event of this hazard.

## Mitigation Strategy: Warning Sirens

- Secure funding for warning sirens. See strategy under convective weather for further information.

## Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators at key community facilities. See strategy under convective weather for further information.

## Mitigation Strategy: Road Regulations

- Work with Washtenaw County and the State of Michigan to provide safer roads, resulting in the decrease of accidents. Ensure that officers are following and enforcing Michigan Department of Transportation regulations for Hazardous Material transportation, as well as being diligent in enforcement of weight and travel restrictions.

## Mitigation Strategy: Training

- Continue to train and equip the City of Saline Fire Department to respond to hazardous materials transportation accidents.

## Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials. See strategy under convective weather for further information.

## **Hazardous Materials Fixed Site Incidents**

The City of Saline has hazardous materials sites and sites registered with the County's Pollution Prevention Program. The areas surrounding these sites are vulnerable (Figure 2). Emergency Managers know the location of these facilities, and amount and type of materials stored within each facility. Similar to transportation accidents, hazardous material fixed site accidents can impact residences, businesses and the environment located in close proximity to the facility.

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

## Mitigation Strategy: Warning Sirens

- Secure funding for warning sirens. See strategy under convective weather for further information.

## Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators at key community facilities. See strategy under convective weather for further information.

## Mitigation Strategy: Training

- Continue to train and equip the City of Saline Fire Department with regard to handling of hazardous materials incidences.

## **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, encouraging them to keep power lines clear of trees and tree limbs, specifying addresses and locations of problem trees.

# City of Saline

## Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials. See strategy under convective weather for further information.

## **Infrastructure Failure**

Southeast Michigan, New York and portions of Ohio lost power for one to three days during August 2003, due to a grid malfunction. This incident left many communities struggling to assist their citizens. Saline will proactively implement the following to be prepared in the event that an infrastructure emergency occurs again.

The vulnerable areas in the City of Saline include the Evangelical Home, Millpond Manor and Brecon Village. These facilities host people dependent on power for medical care.

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

## Mitigation Strategy: Emergency Generators

- Secure funding to install emergency generators at key community facilities. See strategy under convective weather for further information.

## Mitigation Strategy: Maintenance

- Distribute annual reminders to ground utility providers, encouraging them to keep power lines clear of trees and tree limbs, specifying addresses and locations of problem trees.

## Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials. See strategy under convective weather for further information.

## **Petroleum and Natural Gas Pipeline Accidents**

There are pipelines that are located in the City, and therefore accidents due to pipeline ruptures are a concern. Vulnerable areas are the residential neighborhoods and the industrial parks inhabitants located in close proximity to a pipeline (generally, the northern area of the City).

## Mitigation Strategy: Training Hazardous Material Response Team

- Continuing to train, equip and maintain the Washtenaw County Hazardous Material Response Team through the Saline City Fire Department based on Petroleum and Natural Gas Pipeline Accidents will ensure to get the best response in case of an emergency.

## Mitigation Strategy: Ordinance Changes

- Review ordinance requirements to determine if revisions are necessary to increase buffer distances between pipelines and development. Residential development is occurring near the location of petroleum and natural gas pipelines, supporting and honoring buffers will help to minimize the people being affected in case of a Petroleum and Natural Gas Pipeline Accident.

## Mitigation Strategy: Public Education

- Distribute Emergency Preparedness materials. See strategy under convective weather for further information.

## **Flood Hazards due to Dam Failure**

There is one dam located in the City of Saline, which is a hazard concern for the community. In case of a Dam Failure the Downstream rural residents and communities would be the one most affected.

Goal: Reduce the potential for a dam failure and flooding and ensure that proper steps are taken in the event of a failure

## Mitigation Strategy: Warning System

- Install a public warning system that would alert downstream residents and businesses in the event of a dam failure, giving them time to evacuate. Establishing a procedure for notification of the downstream communities through the EOC would minimize the people at risk in case of a dam failure.

## Mitigation Strategy: Plans

- Annually update the Dam Plan.
- Continue building department review of all building permits applications for compliance with applicable law.

## Mitigation Strategy: Enforcement

- Enforce plans and ordinances to prevent building in floodplains.
- Modify the review process. One important step toward reducing the loss of houses and lives in case of an emergency is to ensure that the building department reviews all building permits application for compliance with applicable laws.

## Mitigation Strategy: Maintenance

- Continue to maintain a full-time dam operator to conduct routine inspections, and provide repair and maintenance, as needed.
- Secure funds to implement recommendations provided in State Inspection Reports. Work with FEMA and follow any recommendations provided with regard to dam safety.

## Mitigation Strategy: Public Education

- Disseminate information to residents and businesses, informing them about the potential hazard and about appropriate responses in case of a dam failure.

## **Wildfires**

Many wildfires are caused by sparks from railroad cars. The railroad track running northwest through the City's Industrial Park places businesses as well as the new high school located on Industrial Street at risk. Even a very small railroad spark can start a wildfire.

Goal: Reduce losses due to wildfires to vulnerable areas

## Mitigation Strategy: Training

- Continue to properly train and equip the City's Fire Department Staff. A quick response is most important in case wildfires occur in order to keep the impacted area small.

## Mitigation Strategy: Public Education

- Provide educational program on fire and burn prevention programs. Common alert is helpful to prevent fires and for this reason educating the public about fire safety through the City Public Fire Education Committee is needed. The program may target elementary school children, senior citizens and neighborhood watch groups.

## **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.

# City of Saline

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:* City of Saline 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 at Special Care Facilities

*Responsible Agencies:* City of Saline

*Estimated Cost:* \$200,000 per generator.

### Assist Units in Manufactured Housing Communities with Proper Anchoring

*Responsible Agencies:* Washtenaw County Building Department and City of Saline

*Estimated Cost:* To be determined.

### Work with Manufactured Housing Community Owner to Construct Emergency Shelter

*Responsible Agencies:* City of Saline

*Estimated Cost:* To be determined.

## Other Important Strategies

### Maintenance Reminders to Utility Providers

*Responsible Agency:* City of Saline

*Estimated Cost:* Staff time.

### Amend Master Plan to incorporate hazard mitigation goals, strategies

*Hazard Mitigation Plan  
September 2004*

*Responsible Agency:* City of Saline

*Estimated Cost:* \$1,000.

### Road Safety Enforcement

- Work with WCRC and MDOT on weight and travel restrictions.

*Responsible Agency:* City of Saline

*Estimated Cost:* \$40,000 (1/2 Full Time Employee).

### Training and Education

- Continued training, equipment and maintenance for the Hazardous Material Response Team

*Responsible Agency:* City of Saline and Washtenaw County Emergency Management Division

*Estimated Cost:* \$25,000.

### Dam Failure Preparedness

- Prepare Evacuation Plan
- Ensure Building Department reviews all plans for compliance with Floodplain regulations

*Responsible Agencies:* City of Saline and Washtenaw County Emergency Management Division

*Estimated Cost:* \$5,000 annually.

### Public Education (brochures, mailings regarding Family Preparedness kits)

*Responsible Agencies:* City of Saline and Washtenaw County Emergency Management Division

*Estimated Cost:* \$2,000 annually.

## 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 structural projects through the hazard mitigation grant programs. These include the Hazard

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 The City of Saline at this time. The strategies listed in this plan that qualify for FEMA funds include: emergency generators, warning sirens, shelter for manufactured housing communities, and assistance to unit owners for proper anchoring of their manufactured housing unit.

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 City Manager. The plan will be an annual agenda item for the Saline City Council. At a minimum, during its review, the Council 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 City 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 Saline City Council.

**Attachment 1  
County Hazard Plan**



**Attachment 2  
Alternative Funding Sources**

# City of Saline

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
<b>FEDERAL SOURCES</b>																											
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								√	√	√																√	√

# City of Saline

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
<b>FEDERAL SOURCES</b>																											
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								√	√	√			√													√	

# City of Saline

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
<b>FEDERAL SOURCES</b>																											
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																√	√										√

# City of Saline

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
<b>FEDERAL SOURCES</b>																											
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											√	√			√	√	√	√								√	

# City of Saline

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
<b>FEDERAL SOURCES</b>																											
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									√																		√

# City of Saline

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
<b>STATE OF MICHIGAN</b>																											
<b>Department of Agriculture</b>																											
Energy Conservation Program									√													√				√	√
Groundwater Stewardship Program											√							√								√	√
Intercounty Drain Program (available to Drain Commissioner only)								√	√	√																	√
<b>Economic Development Corporation</b>																											
Community Development Block Grant									√	√			√													√	
Urban Land Assembly									√																	√	
<b>Environmental Quality</b>																											
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									√	√																√	

# City of Saline

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	
<b>STATE OF MICHIGAN</b>																												
<b>Housing Development Authority</b>																												
Community Development Block Grants/Housing Resource Fund						√			√	√											√		√		√	√		
Home/Property Improvement Loans						√			√	√											√		√		√	√		
<b>Department of Natural Resources</b>																												
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					√	√	√																				√	
<b>State Police</b>																												
Emergency Management Performance Grants	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	
Flood Mitigation Assistance									√	√																	√	√
Hazard Mitigation Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		
Individual and Family Grant Program									√	√			√														√	

# City of Saline

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
<b>STATE OF MICHIGAN</b>																											
<b>State Police (continued)</b>																											
Interagency HazMat Public Sector Training and Planning Grants (HazMat Emergency Preparedness Grant)											√	√		√	√	√	√									√	
Project Impact	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Public Assistance Grant Program	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
<b>Department of Transportation</b>																											
Rail Loan Assistance Program												√	√													√	
Trans. Econ. Development Fund								√	√	√																√	
<b>Department of Treasury</b>																											
Municipal Bond Authority-Local Government Loan Program				√		√			√	√			√						√	√	√	√	√	√		√	
Municipal Bond Authority-State Aid Note Program				√		√			√	√			√						√	√	√	√	√	√		√	