

X. Hazard Mitigation Action Plan

Table 10-1 lists specific hazard mitigation actions and/or projects that are estimated to be implemented during the planning period. This table serves as a plan of action for the various jurisdictions and agencies that play a pivotal role in all-hazards mitigation. For each action, a general level of importance is given, as is the timeframe for which an action is planned. Many of the mitigation actions listed are ongoing activities that do not have a specific starting or ending date. They are critical actions that various agencies are continually working to implement.

Often times more than one agency is involved in a particular project. For each action item, the agencies involved are listed. The projected lead agency is highlighted in bold. The fact that an agency is not listed in the table, does not mean that it cannot be involved in a project. The last column simply indicates that an action or project could potentially be eligible for FEMA program funding.

FEMA Funding Programs:

HMGP: Hazard Mitigation Grant Program

PDMG: Pre-Disaster Mitigation Grant Program

FMA: Flood Mitigation Assistance Program

Table 10-1: Action Implementation Table

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Prevention Mechanisms				
Continue to enhance the capabilities of the county GIS system to function as a planning tool to aid in regulatory efforts to mitigate hazard events.	High	Ongoing	SCCIT, MPC, OEM	HMGP
Develop a system to organize, implement, and evaluate grant activities to assure maximum accountability and outcomes.	Medium	2006	OEM, local units	
Continue the county's investment in the safest and most cost beneficial traffic control devices/safety improvements available.	Medium	Ongoing	SCCRC, SCCOTS, MPC	HMGP
Mitigate delays and safety deficiencies associated with at-grade railroad crossings.	Medium	Ongoing	MDOT, SCCRC, SCCOTS, local units	HMGP
Implement consistent access management design controls on all corridors with a National Functional Classification of minor arterial or higher.	Low	Ongoing	MDOT, SCCRC, SCCOTS, local units	

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Develop a model access management ordinance and adopt the access management standard at the county level.	Low	2007-2008	MDOT, SCCRC, SCCOTS, MPC , local units	
Communities must coordinate site plan review with the Road Commission to ensure driveway design and sight distance standards are met.	High	Ongoing	SCCRC , local units	
Use land development techniques, such as cluster housing, to preserve natural resources and features.	Low	Ongoing	MPC , local units	
Require that development and redevelopment site plans protect wood lots, wetlands, and other natural vegetation.	Medium	Ongoing	MPC , local units	
Work cooperatively across government lines to minimize possibilities for release of hazardous materials that are, or might be, transported through the county. Involve federal officials and state officials in this discussion, and – because of our association and proximity to Canada – include government leaders from that country.	Medium	Ongoing	OEM , MPC, local units, Canadian officials, EPA, DEQ, private sector	
Prevent contamination of surface and ground water from new sources, especially new residential, commercial, or industrial development.	Medium	Ongoing	MPC, local units, SCCHD , SCCDC, MDEQ	
Require an undisturbed setback from natural features areas such as water bodies and wetlands.	Medium	Ongoing	MPC , local units	
Develop consistent stormwater management standards that promote a natural flow and rate of drainage.	High	Ongoing	MPC, local units, SCCDC, SCCRC, SCCHD	PDMG
Continue to ensure that street widths, paving, and grades can accommodate emergency vehicles.	High	Ongoing	SCCRC , local units	
Map out potential terrorist targets within the county, as well as in Lambton County in Ontario.	Medium	2006; ongoing	OEM , MPC, SCCIT, Lambton County	HMGP
Continued support of the St. Clair County Local Emergency Planning Committee (LEPC).	High	Ongoing	OEM , private sector, LEPC	HMGP
Identify acceptable areas for growth	High	2006-2007	MPC , local units	
Implement land use planning regulations in floodplain and coastal zone areas.	Medium	2006 and beyond	MPC, local units, MDEQ, FEMA	PDMG, FMA

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Develop an Emergency Management Technology Resource Plan	High	2006	OEM, SCCIT, MPC	HMGP
Property Protection Mechanisms				
Encourage the burying of power lines	Medium	Ongoing	MPC, local units, utilities	PDMG, HMGP
Conduct comprehensive inventory of utilities infrastructure in county.	Medium	2006-2007	MPC , private sector, local units	
Proper separation and buffering between industrial areas and other land uses.	Medium	Ongoing	MPC, local units	PDMG, HMGP
Increase National Flood Insurance Program (NFIP) participation.	Medium	Ongoing	Local units, citizens	
Continue county's Purchase of Development Rights program.	Medium	2006 and beyond	MPC , local units, citizens	
Acquire floodprone properties.	High	Ongoing	County, local units	PDMG, HMGP, FMA
Elevation of floodprone structures.	Medium	Ongoing	County, local units , general public	PDMG, HMGP, FMA
Clean out debris that is blocking streamflows and/or leading to flooding.	High	Ongoing	Local Units, County, SCCDC, SCCHD	PDMG, HMGP, FMA
Flood mitigation for Bunce Creek and Huffman Drain, including acquisition of property, culvert upsizing, channel reshaping, and installation of erosion control structures.	High	2006-2007	SCCDC, OEM, Local Units	PDMG, HMGP
Enhance stream bank stabilization.	Low	Ongoing	MPC, local units, SCCDC, SCCHD, MDEQ	PDMG, HMGP, FMA
Obtain and provide portable heating systems for large facilities and designated county shelters.	Medium	2006-2008	OEM , local units, public safety agencies	PDMG
Encourage the requirement of residential fire-sprinkler systems.	Medium	Ongoing	OEM, local units, public safety agencies, MPC	HMGP
Work with communities to require backup power systems for large facilities, commercial facilities, and facilities identified as shelters.	Medium	Ongoing	OEM , local units, public safety agencies, private sector	HMGP

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Natural Resource Protection				
Invest in road improvements that improve the county's air and water quality	Medium	Ongoing	SCCRC, SCCOTS	HMGP
Sustain the health, diversity, and extent of natural resources.	Medium	Ongoing	MPC, SCCHD , local units	HMGP
Install storm drain markers.	Medium	2006-2007	SCCHD, SCCDC	HMGP
Install buffers and protect riparian corridors	Medium	2007	SCCDC , local units	PDMG, HMGP, FMA
Inventory natural features that might be adversely affected or impacted as a result of improper or accidental dumping of hazardous materials.	Medium	2007-2008	MPC , SCCHD, PARC, SCCDC, MDEQ, MDNR, local units	HMGP
Identify and eliminate sources of existing sewage contamination, especially contamination entering county drains.	High	Ongoing	SCCHD, SCCDC , OEM, MDEQ	PDMG, HMGP
Work in concert with the St. Clair Conservation District to mitigate invasive species, infestations, and natural diseases.	Low	Ongoing	MPC, local units, MSU Extension	HMGP
Emergency Services				
Ensure that the County and individual communities have adequate equipment, staff, and training to respond to hazard events specific to their needs.	High	Ongoing	County , local units	HMGP
Training, planning, and preparedness by local law enforcement and other responders for terrorist/sabotage/WMD attacks.	High	Ongoing	County, OEM , local public safety agencies, hospitals, EMS	
Alertness, awareness, and monitoring of organizations and activities that may threaten the community.	High	Ongoing	OEM , local public safety agencies, media, citizens	
Establish, implement, and communicate a schedule for conducting and evaluating exercises.	High	2 exercises in 2006; at least one per year thereafter	OEM , local public safety agencies	HMGP
OEM will obtain voluntary accreditation from a nationally recognized accreditation entity.	Medium	2006	OEM	

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Verify that the procedures, networks, and equipment necessary to issue warnings, alert officials, alert emergency personnel, and inform the public are in place and operational.	High	Ongoing	OEM , local public safety agencies, hospitals, media	HMGP
Design and implement processes to strengthen interagency cooperation as a means to enhance collaborative planning and response regarding emergency situations.	Medium	Ongoing	OEM , local public safety agencies, EMS, hospitals	
Replace Emergency-personnel radios throughout the county with 800-megahertz radios and expand network to include all potential emergency management partners, both public and private	High	2007-2008	OEM , local public safety agencies, private sector	HMGP
Build new communication radio towers and upgrade existing radio towers in the county.	High	2006-2007	OEM , local public safety agencies, private sector	HMGP
Obtain mobile generators that can be moved to various emergency locations to provide power	High	2006-2007	OEM , public safety agencies	HMGP, PDMG
Continued support of the St. Clair County Hazardous Operations Team.	High	Ongoing	OEM , local public safety agencies	
Train and equip police officers.	High	Ongoing	OEM , local units	
All fire department personnel within the county be trained and certified to the Hazardous Materials Operations level.	High	Ongoing	Local fire departments	
Establish an easy flow of information from the field into the EOC during times of emergency.	High	2007	OEM , SCCIT, MPC, local units	
Establish a network for data sharing during emergencies and non-emergency situations	High	2008	OEM , SCCIT, local units, private sector	
Integrate NIMS training into the county Emergency Management Program	High	2006-2007	OEM , public safety agencies	HMGP
Install new all-hazards sirens throughout the county and increase the number of all-hazards/outdoor warning sirens.	High	Ongoing	OEM , public safety agencies	HMGP, PDMG
Upgrade and/or replace existing all-hazards/outdoor warning sirens.	High	Ongoing	OEM , public safety agencies	HMGP, PDMG

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Equip all emergency vehicles with laptop computers to allow for easy access to data, maps, and other communication.	Medium	2006-2010	OEM, SCCIT, public safety agencies, RESA	
Make the county completely wireless for the purposes of communications and data flow.	Medium	Ongoing	SCCIT, OEM, local units	
Promote and implement in-home all-hazards notification devices.	Medium	Ongoing	OEM, public safety agencies, general public	
Structural Mitigation Mechanisms				
Require detention basins to be natural configured with gentle slopes, natural landscaping, and avoid the use of fencing.	Medium	Ongoing	MPC, local units, SCCDC	
Construct storm shelters in public buildings, public properties, and mobile home parks.	High	Ongoing	County, local units, developers	PDMG, HMGP
Construct emergency shelters for special needs populations.	High	Ongoing	County, local units, private sectors	PDMG, HMGP
Public Education and Outreach				
Organize outreach program to vulnerable populations during and after hazard events and emergency situations that can impact the community.	Medium	Ongoing	OEM, MPC, local units, RESA, SCCHD, SCCRC	HMGP
Produce and distribute family emergency preparedness information relating to the various hazards affecting the county.	Medium	Ongoing	OEM, local units	
Enhance and expand an all hazards education and awareness program in schools, which includes classroom presentations and incorporating hazard preparedness into school curriculums.	Low	Ongoing	OEM, RESA, SCCHD	HMGP
Work with teachers and school officials to involve children in emergency and environmental awareness.	Low	Ongoing	OEM, RESA, SCCHD	
Increase awareness and enrollment of the county's Select Alert system.	Medium	Ongoing	OEM, general public	
Conduct workshops at community gatherings to encourage residents to develop a Family Disaster Plan which includes the preparation of a Disaster Supplies Kit.	Medium	Ongoing	OEM, local public safety agencies	

Mitigation Action	Priority	Timeframe	Agency Involvement (Lead Agency in BOLD)	Potential FEMA Funding
Continue to enhance the capabilities of the county GIS system to function as a tool to address multiple hazards	High	Ongoing	MPC, SCCIT , OEM	HMGP
Review and update public education and training materials to verify that they contain the most recent information and current processes.	High	Ongoing	OEM , MPC, local units, SCCHD, SCCRC, SCCDC, RESA	
Develop and implement an awareness program to inform and engage the private sector in the emergency management process.	High	2006	OEM , private sector, local public safety agencies	
Provide detailed and informative information and resources regarding all-hazard mitigation on the county's web sites, including the Emergency Management site and the CIS (Community Information System) website.	Low	2006-2007; ongoing updates	OEM , MPC, SCCIT	HMGP
Develop a parent education program regarding parental responsibility during a school lock-down or in-place sheltering.	High	2006-2007	OEM, RESA , public safety agencies	HMGP, PDMG
Develop all-hazards education programs	Medium	2007-2008	OEM, RESA , public safety agencies	HMGP
Organize educational workshops for local governments and citizens about the dangers of developing in floodplains.	Medium	2007-2008	MPC , OEM, local units, SCCHD	HMGP, PDMG, FMA

OEM: St. Clair County Office of Emergency Management

MPC: St. Clair County Metropolitan Planning Commission

SCCHD: St. Clair County Health Department

SCCDC: St. Clair County Drain Commission

SCCRC: St. Clair County Road Commission

SCCIT: St. Clair County Information Technology

SCCOTS: St. Clair County Transportation Study

MDOT: Michigan Department of Transportation

RESA: St. Clair County Regional Educational Service Agency

PARC: St. Clair County Parks and Recreation Commission

The following table represents the top mitigation priorities in each jurisdiction in St. Clair County. A full range of mitigation objectives, projects, and strategies for each community is detailed in Chapter 9, which contains language from each jurisdiction’s Master Plan, as well as input garnered during the planning process.

Table 10-2: Priority Mitigation Actions by Community

Jurisdiction	Top Mitigation Priority(s)	Timeframe	Potential FEMA Funding
Algonac City	Ensure that critical facilities have access to an auxiliary power supply.	Ongoing	HMGP
Berlin Township	Provide for the reasonable protection, preservation and enhancement of fragile environmental areas, together with other important natural assets and features.	Ongoing	HMGP, PDMG
Brockway Township	Installation of emergency warning systems for severe weather, fires, and other hazard events.	2006 – 2010	HMGP
Burtchville Township	Enhance emergency shelters for public facilities and manufactured home parks.	2006 – 2010	HMGP, PDMG
Capac Village	Installation of emergency warning systems for severe weather, fires, and other hazard events; public education and outreach.	Ongoing	HMGP
Casco Township	Enhance emergency warning system to notify residents of a hazard event.	2006 – 2010	HMGP
China Township	Flood Control Measures: Acquisition of floodprone property; Elevation of Structures; localize flood control projects.	2006 - 2010	PDMG, HMGP
Clay Township	Invasive species mitigation and public education program; protective measures to preserve water quality and supply.	2006 – 2010	HMGP
Clyde Township	Natural resource protection; forest management; public education on wildfire prevention.	Ongoing	HMGP
Columbus Township	Upgrade existing and install new all-hazard warning systems; protection of gas and electric transmission lines.	2006 – 2010	HMGP
Cottrellville Township	Organize outreach program to vulnerable populations during and after hazard events and emergency situations that can impact the community.	Ongoing	HMGP
East China Township	Flood Control Measures: Acquisition of floodprone property; Elevation of Structures; localize flood control projects.	2006 - 2010	PDMG, HMGP

Jurisdiction	Top Mitigation Priority(s)	Timeframe	Potential FEMA Funding
Emmett Township	Upgrade and improve radio communications systems to enhance emergency response; Upgrade existing and install new all-hazard warning systems	2006 -2010	HMGP
Emmett Village	Upgrade and improve radio communications systems to enhance emergency response; Upgrade existing and install new all-hazard warning systems	2006 -2010	HMGP
Fort Gratiot Township	Provide auxiliary power supply to public buildings and major structures in an emergency.	2006 - 2010	HMGP
Grant Township	Upgrade and improve radio communications systems to enhance emergency response.	2006 -2010	HMGP
Greenwood Township	Upgrade existing and install new all-hazard warning systems for hazardous materials spills, fires, and tornados.	2006 – 2010	PDMG, HMGP
Ira Township	Enhance emergency shelters for public facilities and manufactured home parks.	Ongoing	PDMG, HMGP
Kenockee Township	Protect and enhance the Township’s environmental assets, including clean air, water, and soils, as well as the woodlands, wetlands, and abundance of wildlife.	Ongoing	PDMG, HMGP
Kimball Township	Organize outreach program to vulnerable populations during and after hazard events and emergency situations that can impact the community.	Ongoing	HMGP
Lynn Township	Enhance the capacity for emergency services within the Township.	Ongoing	HMGP
Marine City	Provide auxiliary power supply to public buildings and major structures in an emergency	Ongoing	HMGP
Marysville City	Promote flood plain management through implementation of “sound land use” within flood plain areas; Public education and outreach on preparedness.	Ongoing	HMGP, PDMG
Memphis City	Ensure that critical facilities have access to an auxiliary power supply; public outreach programs.	Ongoing	HMGP
Mussey Township	Upgrade existing and install new all-hazard warning systems; public education and outreach.	2006 – 2010	HMGP
Port Huron Township	Provide auxiliary power supply to public buildings and major structures in an emergency; public education about hazard events.	2006 - 2010	HMGP
Riley Township	Public awareness campaigns to inform residents on hazard events.	Ongoing	HMGP
St. Clair City	Ensure that critical facilities have access to an auxiliary power supply; flood control measures.	Ongoing	HMGP, PDMG

Jurisdiction	Top Mitigation Priority(s)	Timeframe	Potential FEMA Funding
St. Clair Township	Establish residential land use policies that are compatible with environmentally sensitive areas; flood control measures.	Ongoing	HMGP, PDMG
Wales Township	Cleaning and retrofitting county drains and road ditches.	2006 – 2010	PDMG, HMGP
Yale City	Provide auxiliary power supply to public buildings and major structures in an emergency.	2006 – 2010	HMGP