
Multi-Hazard Mitigation Plan

5.0 Mitigation Strategy

The CPT reviewed and discussed the process of formulating mitigation goals. Each CPT member was provided with a written explanation of Goals and Objectives, the purposes they serve, and how they are developed and written. Up to this point in the planning process, the CPT has been involved in talking to agencies and organizations and collecting and recording hazard related data. From these discussions and efforts, the CPT completed all three components of the Risk Assessment:

1. Hazard Identification;
2. Vulnerability Assessment; and
3. Capability Assessment.

The first two components have painted a picture of the vulnerability of Evansville and Vanderburgh County to natural hazards. The CPT learned that:

1. Stream system and neighborhood flooding continues to be a significant threat to the community
2. Earthquakes pose a moderate threat
3. Most meteorological and natural biological hazards occur periodically (drought, extreme temperatures, infestations, severe thunderstorms/high wind, tornadoes, and severe winter storms), and constitute a significant on-going threat. All federal disaster declarations within the County have been due to severe storms.

The third document, Capability Assessment, described the current ability of Evansville and Vanderburgh County to counter these threats through existing policies, regulations, programs, and procedures. Here, the CPT learned that:

1. Flood insurance is available, but only 15 percent of those structures located within the floodplain are covered;
2. Repetitive loss “areas” need to be coordinated with existing Stormwater Master for the City of Evansville;
3. Building Codes contain seismic safety elements;
4. Building Codes contain design wind elements;
5. The Disaster Resistant Communities Program (coinciding with Project Impact) has outlined several public information and structural projects;



6. Public information could be made available to inform residents about the risks from hazards (earthquakes, floods, and tornadoes predominantly) and appropriate risk reduction actions that they can undertake; and
7. The Community is seeking to improve Warning Capabilities.

GOAL SETTING

The analysis of the three components of the Risk Assessment identified areas where mitigation improvements could be made, providing the framework for the CPT to formulate planning goals. Each CPT member was provided an alphabetized list of possible goal statements. In addition, each CPT member also received a list of goals from other community plans that have had public input and review and have already been formally adopted. This information was provided to CPT to ensure that the Mitigation Planning Goals would be in concert, not in conflict, with other existing community priorities. CPT members then each received three index cards and were asked to write what they felt would be appropriate goals for this plan using the information provided as a guide.

The CPT members were instructed that they could use, combine or revise the statements provided, or develop new ones. The goal statements were then attached to the meeting-room wall, grouped into similar topics, combined, rewritten, and agreed upon.

Some of the statements were determined to be better suited as objectives or actual mitigation projects, and were set aside for later use. Based upon the planning data review, and the process described above, the CPT developed the final goal statements listed below. None of the final goal statements are the same as those provided on the alphabetized list. The goals and objectives provide the direction for reducing future hazard-related losses in within Evansville and Vanderburgh County.

GOAL #1: Implement a comprehensive Public Education campaign regarding the hazards posing significant risk to Evansville and Vanderburgh County.

Objective 1.1: Promote awareness of Hazards and Vulnerability among citizens, business, industry, school systems, and government.

Objective 1.2: Provide information on Hazard Mitigation alternatives and their respective costs, benefit, and impacts.

Objective 1.3: Ensure that the information provided is accurate and consistent.

Objective 1.4: Promote hazard mitigation as a public value in recognition of its importance to the health, safety, and welfare of the population.



Objective 1.5: Strengthen communication and coordination between public agencies, citizens, non-profit organizations, business, industry, and school systems to create a widespread interest in hazard mitigation.

GOAL #2: Reduce exposure to hazard related losses, before and after disaster strikes.

Objective 2.1: Implement a Pre-Disaster mitigation Program.

Objective 2.2: Implement a Post-Disaster mitigation Program.

GOAL #3: Utilize latest technology and data in hazard mitigation activities

Objective 3.1: Maximize “Lead-Time” provided by an all-hazards warning system

As previously stated, this Plan covers the jurisdictions of the City of Evansville, Vanderburgh County and the Town of Darmstadt. As no unique vulnerabilities were identified for Darmstadt and the capabilities and responsibilities of Vanderburgh County and the Vanderburgh County Emergency Management Agency apply to Darmstadt, the goals and associated action items developed within this Plan shall wholly apply to the City of Evansville, Vanderburgh County, and the Town of Darmstadt.

IDENTIFICATION OF MITIGATION MEASURES

Following the goal setting meeting, the CPT undertook a brainstorming session to generate a set of viable alternatives that would support the above goals. Each CPT member was provided with the following list of categories of mitigation measures:

- Prevention
- Property Protection
- Structural Projects
- Natural Resource Protection
- Emergency Services, and
- Public Information.

Potential mitigation measures, within each of the six categories, were presented to the CPT. A facilitated discussion examined and analyzed the alternatives. Then, with an understanding of the alternatives, the CPT generated a list of preferred mitigation actions to be recommended. Similar to the goal-setting activity, the CPT included all previously recommended mitigation actions from existing mitigation plans in its review. This process reinforced the use of the Multi-Hazard Mitigation Plan as an umbrella document for all existing mitigation plans mentioned in Section 3. Thus, this plan puts forth existing recommendations that are still to be implemented in addition to the new recommendations that resulted from the CPT’s detailed Risk Assessment process. This plan serves as an update to the existing mitigation plans by identifying the recommendations from previous plans that have already been implemented and by reprioritizing those that remain.



Once the old and new mitigation actions were identified, the CPT members were provided with decision-making criteria to prioritize the recommended actions. FEMA's recommended "STAPLE/E" criteria set (social, technical, administrative, political, legal, economic, and environmental criteria) was utilized in order to help decide why one recommended action might be more important, more effective, or more likely to be implemented than another.



Figure 23. Mitigation Measures

With these tools, the CPT then undertook an exercise to prioritize the recommended mitigation measures. CPT members were provided with colored "stars" – 3 red, 3 blue, and 3 green. Each color represented either high, medium, or low priority with regard to the importance, and each color was assigned a corresponding value (high = 5 points, medium = 3 points, and low = 1 point).

CPT members then voted for their preferred mitigation measures by placing their "stars" on specific mitigation measures. Team members were allowed to place as many as they wished of any or all colors on any one recommendation or to spread the stars among multiple mitigation actions. They were allowed to trade "stars", or otherwise negotiate with any other Team member, and they did not have to use all of their "stars" if they did not wish to do so. This process provided both consensus and priority for the CPT recommendations.

THE MITIGATION STRATEGY

The results of the planning process, the Risk Assessment, the Goal Setting, the Identification of Mitigation Measures, and the hard work of the CPT led to the Action Plan presented herein. It also helped the CPT clearly comprehend and identify the overall mitigation strategy that will lead to the implementation of the Action Plan.

All of the recommendations set forth fall into four easily identifiable strategies:

- ENFORCE existing rules, regulations, policies and procedures. Communities can reduce future losses not only by pursuing new programs and projects, but also by paying closer attention to what's already "on the books."
- EDUCATE the community on the hazard information that Evansville-Vanderburgh County has collected and analyzed through this planning process so that the community understands what disasters can happen, where disasters might occur, and what they can do to prepare themselves better. As part of public education, publicize the "success stories" that are achieved through the CPT's ongoing efforts;



- IMPLEMENT the Action Plan, much of which is comprised of reiterating recommendations that have previously been made as a result of existing community plans;
- MOM --- ardently monitor “Multi-Objective Management” opportunities, so that funding opportunities may be shared and “packaged” and broader constituent support may be garnered.



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ACTION PLAN

The Action Plan presents the prioritized recommendations for Evansville-Vanderburgh County to pursue in order to lessen the vulnerability of people, property, infrastructure, and natural and cultural resources to future disaster losses. The recommendations are presented in order of priority to the community both in terms of need and effectiveness. The recommendations are also listed under the corresponding developed goal. Each recommendation includes a cost estimate and community benefit to meet the regulatory requirements of DMA. Action items that were considered, but not recommended, are included at the end of this section.

GOAL #1: IMPLEMENT A COMPREHENSIVE PUBLIC EDUCATION CAMPAIGN REGARDING THE HAZARDS POSING SIGNIFICANT RISK TO EVANSVILLE AND VANDERBURGH COUNTY.

Objective 1.1: Promote awareness of Hazards and Vulnerability among citizens, business, industry, school systems, and government.

Objective 1.2: Provide information on Hazard Mitigation alternatives and their respective costs, benefit, and impacts.

Objective 1.3: Ensure that the information provided is accurate and consistent.

Objective 1.4: Promote hazard mitigation as a public value in recognition of its importance to the health, safety, and welfare of the population.

RECOMMENDED ACTION 1:

Develop and Conduct a multi-hazard, seasonal Public Awareness Program that provides citizens and businesses with accurate information describing the risk and vulnerability to natural hazards, and is implemented on an annual basis.

Issue/Background:

Evansville and Vanderburgh County, including the Town of Darmstadt, are subject to several natural hazards, each which poses a different degree of risk and associated vulnerability. Some hazards have a combination of attributes, including a high likelihood of occurrence, a specific location which would likely be impacted, and proven approaches that can reduce the impact, such that the CPT has recommended specific actions be taken. For other hazards, where either the likelihood of occurrence is very low, or the area of likely impact is not specifically known, or there is very little that can be done to reduce the impacts, that the CPT has determined that the best approach would simply be public awareness. People should know what the CPT knows: information describing historical events and losses, the likelihood of future occurrences, the range of possible impacts, appropriate actions they can take to save lives and minimize property damage, and where additional information can be found. Any information provided through this effort should be accurate, specific, timely, and



consistent with current and accepted local emergency management procedures as promoted by the Indiana State Emergency Management Agency, Vanderburgh County Emergency Management Agency, Southwest Indiana Disaster Resistant Community Corporation, and the American Red Cross.

Among the specific activities cited by the CPT for program consideration are:

- Educate the public on the appropriate office or point of contact for hazard information;
- Develop and distribute a mailing to repetitive loss properties and potentially all properties located within the floodplain regarding the ongoing potential for flooding and flood safety information;
- Distribute Multi-Hazard Information and Emergency Preparedness pamphlets to residential sectors, specifically noting Habitat for Humanity; Local Apartment Associations; Realtor Association; Neighborhood Associations; and Evansville Housing Authority;
- Determine distribution locations for Multi-Hazard Information and Emergency Preparedness pamphlets within the Town of Darmstadt;
- Distribute information to public as received from the upcoming 5-year USGS and CUSEC Urban Hazard Earthquake Mapping update;
- Coordinate with Safety Week at Eastland Mall;
- Investigate public education opportunities for the commercial community;
- Investigate opportunities to coordinate with local churches for emergency planning;
- Utilize the newly constructed Main Library as a distribution location for multi-hazard information and access point for digital/technology information;
- Minimize the duplication of hazard information presented in the public and private school systems;
- Educate the local television, radio, and newspaper media on Multi-Hazard information, specifically noting driver safety education.



Mitigation Category: Public Information
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): High
Cost Estimate: \$5-20,000, depending upon printing and mailing costs, level of volunteer participation, and scope and frequency of events.
Community Benefit: Life-Safety, Relatively Low Cost, Multi-Hazard program is efficient, relies upon work already accomplished by CPT and others.
Potential funding: 5% state set aside from future HMGP funding and PDM funds
Schedule: Part of a seasonal multi-hazard public awareness campaign



GOAL #2: REDUCE EXPOSURE TO HAZARD RELATED LOSSES, BEFORE AND AFTER DISASTER STRIKES.

Objective 2.1: Implement a Pre-Disaster mitigation Program.

Objective 2.2: Implement a Post-Disaster mitigation Program.

RECOMMENDED ACTION 2:

Incorporate the Hazard Identification and Management Strategies into the 2004 – 2025 Comprehensive Plan for Evansville and Vanderburgh County.

Mitigation Category:	Public Information
Responsible Office:	Vanderburgh County Area Planning Commission
Priority (H, M, L):	Medium
Cost Estimate:	Existing staff time during periodic Plan update
Community Benefit:	Improved and coordinated planning efforts, efficient use of existing resources
Potential Funding:	None necessary
Schedule:	Comprehensive Plan is updated every five years.

FLOODING

▶ **RECOMMENDED ACTION 3:**

Develop County-Wide Stormwater Master Plan to provide relief from run-off and flooding resulting from rainfall events.

Generally, Master Plans are made for sub-watersheds, and include master drainage planning, construction, and maintenance elements. They can also propose new development regulations and drainage utility fees to pay for the necessary improvements. The overall intent is to allow the community to address increasing runoff as there are increases in impervious surfaces (roofs, sidewalks, roads, parking lots), and to plan for drainage in a comprehensive manner so that development in one area has minimal impacts on another, either up or downstream, minimizing future flood damage.

Mitigation Category:	Property Protection and Structural Projects
Responsible Office:	Vanderburgh County Engineer
Priority (H, M, L):	Medium
Cost Estimate:	\$100,000 for watershed studies and stormwater feasibility analysis
Community Benefit:	Long-term reduction in future damages
Potential Funding:	County Budget; PDM and HMGP Funding
Schedule:	Within the next 5 to 10 years

▶ **RECOMMENDED ACTION 4:**

Based on existing City Stormwater Master Plan, develop formalized policies (level-of-service and extent-of-service) for maintenance of the storm water drainage system.



Mitigation Category: Preventative Measure
Responsible Office: City Engineer
Priority (H, M, L): Medium
Cost Estimate: \$20,000
Community Benefit: Regular maintenance, such as sediment and debris clearance, is necessary for the storm sewer system to carry out its design function.
Potential Funding: FMA; PDM; HMGP
Schedule: Within the next 5 years

► **RECOMMENDED ACTION 5:**

Define repetitive loss areas adjacent to the repetitive loss properties in order to identify problematic areas and educate appropriate residents on the flooding hazard.

Mitigation Category: Public Information and Property Protection
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Building Commission
Priority (H, M, L): Medium
Cost Estimate: Existing staff time and budget
Community Benefit: Targeting public information and mitigation efforts on a known problem area
Potential Funding: None necessary
Schedule: Within the next year (November 2005)

► **RECOMMENDED ACTION 6:**

Develop a property acquisition plan and associated policies to acquire prioritized properties in the repetitive loss areas.

Mitigation Category: Preventative Measure and Structural Project
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Building Commission
Priority (H, M, L): Medium
Cost Estimate: \$40,000
Community Benefit: Life-Safety; Permanent restrictions on development within a defined problem area
Potential funding: HMGP; PDM; FMA
Schedule: Within the next year (November 2005)

► **RECOMMENDED ACTION 7:**

Update City and County Ordinances to coordinate design requirements of Detention/Retention Ponds.

Mitigation Category: Preventative Measure
Responsible Office: Building Commission in conjunction with Evansville City Engineer and Vanderburgh County Engineer



Priority (H, M, L): Medium
Cost Estimate: Staff Time / Existing Budgets
Community Benefit: Consistent design methods throughout the county to reduce runoff following construction and development.
Potential Funding: Existing Budgets
Schedule: Within the next two years (November 2006)

▶ **RECOMMENDED ACTION 8:**

Develop method for record keeping of levee maintenance efforts. Task requires coordination with the Levee Authority and U.S. Army Corps of Engineers, Louisville District.

Mitigation Category: Preventative Measure
Responsible Office: Building Commission in conjunction with Levee Authority
Priority (H, M, L): Medium
Cost Estimate: Staff Time / Existing Budgets
Community Benefit: Life-Safety; confirmation of levee safety; requirement for update to the FIRM
Potential Funding: Existing Budgets
Schedule: Within the next year (November 2005)

▶ **RECOMMENDED ACTION 9:**

Complete a review of all historically proposed capital improvement projects and develop a priory list for implementation.

The Stormwater Master Plan for the City of Evansville includes alternative design solutions for noted problematic flooding areas within the City. These alternatives should be prioritized based on factors such as repetitive loss structures, benefit-cost, number of homes removed from the floodplain, etc.

In coordination, current watershed studies of Carpenter Creek and two basins in the eastern portion of Evansville, identify potential alternatives to relieve flooding. These alternatives should be prioritized with the City of Evansville Stormwater Master plan.

Mitigation Category: Property Protection and Structural Project
Responsible Office: Building Commission in conjunction with Evansville City Engineer and Vanderburgh County Engineer
Priority (H, M, L): Low
Cost Estimate: \$40,000
Community Benefit: Long-range and prioritized plan for capital improvements.
Potential Funding: Existing Budgets
Schedule: Within the next year (November 2005)



► **RECOMMENDED ACTION 10:**

Based upon the completed CIP priority list and watershed studies, initiate design and construction of high priority capital improvement projects.

Mitigation Category: Structural Project
Responsible Office: Building Commission in conjunction with Evansville City Engineer and Vanderburgh County Engineer
Priority (H, M, L): Low
Cost Estimate: Excess \$1 million (construction cost)
Community Benefit: Life-Safety
Potential funding: HMGP; PDM; FMA
Schedule: Within the next 5 to 10 years

EARTHQUAKES

► **RECOMMENDED ACTION 11:**

Investigate financial incentives for property owners to make seismic retrofits to existing buildings, particularly un-reinforced masonry structures, located within the earthquake hazard area.

Mitigation Category: Preventative Measure
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Building Commission
Priority (H, M, L): High
Cost Estimate: Staff Time / Existing Budgets / University Research Project
Community Benefit: Life-Safety; Continued community development within historical districts
Potential Funding: Existing Budgets
Schedule: Within the next five years

► **RECOMMENDED ACTION 12:**

Explore partnerships to provide retrofitting classes for homeowners, renters, building professionals, and contractors.

Mitigation Category: Preventative Measure and Public Information
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Building Commission and Southwestern Indiana Disaster Resistant Communities
Priority (H, M, L): High
Cost Estimate: Staff Time / Existing Budgets
Community Benefit: Life-Safety; Continued community development within historical districts
Potential Funding: Business Partners
Schedule: Within the next three years (November 2007)



▶ **RECOMMENDED ACTION 13:**

Investigate potential to include residential seismic requirements in the Building Code.

Mitigation Category: Preventative Measure
Responsible Office: Building Commission
Priority (H, M, L): Medium
Cost Estimate: Staff Time / Existing Budgets
Community Benefit: Life-Safety
Potential Funding: Existing Budgets
Schedule: Within the next five years

▶ **RECOMMENDED ACTION 14:**

Encourage purchase of earthquake hazard insurance throughout Vanderburgh County, including the City of Evansville and the Town of Darmstadt.

Mitigation Category: Preventative Measure
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): Medium
Cost Estimate: \$5,000
Community Benefit: Life-Safety
Potential Funding: None necessary
Schedule: Ongoing

▶ **RECOMMENDED ACTION 15:**

Pursue alternative funding sources for structural retrofits.

Mitigation Category: Preventative Measure
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Building Commission
Priority (H, M, L): Low
Cost Estimate: Staff Time / Existing Budgets / University Research Project
Community Benefit: Life-Safety; Continued community development within historical districts
Potential Funding: None necessary
Schedule: Within the next five years



SEVERE WEATHER

▶ **RECOMMENDED ACTION 16:**

Purchase and distribute NOAA weather radios throughout Vanderburgh County, including the City of Evansville and the Town of Darmstadt.

Mitigation Category: Emergency Services Measure
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): Medium
Cost Estimate: \$5,000
Community Benefit: Life-Safety
Potential Funding: Coordinated project with local News and Radio Station / Business Partners; HMGP and PDM Funds
Schedule: Within the next year (November 2005)

▶ **RECOMMENDED ACTION 17:**

Develop a plan and schedule to modify and enhance the existing Building Code regulations to require hurricane clips with the intent of minimizing future damages from high winds and tornadoes.

Mitigation Category: Preventative Measure
Responsible Office: Building Commission
Priority (H, M, L): Medium
Cost Estimate: \$15,000
Community Benefit: Life-Safety
Potential Funding: HMGP and PDM Funds
Schedule: Within the next year (November 2005)

▶ **RECOMMENDED ACTION 18:**

Continue program with Habitat for Humanity to provide materials for strapping down hot water heaters and hurricane clips.

Mitigation Category: Structural Project
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Southwestern Indiana Disaster Resistant Communities
Priority (H, M, L): Low
Cost Estimate: \$15,000
Community Benefit: Life-Safety
Potential Funding: HMGP and PDM Funds
Schedule: Ongoing



► **RECOMMENDED ACTION 19:**

Continue efforts to train local contractors in tree trimming practices

Mitigation Category: Natural Resource Protection
Responsible Office: County Arborist
Priority (H, M, L): Low
Cost Estimate: Existing Staff time and budget.
Community Benefit: Life-Safety
Potential Funding: Existing Budgets
Schedule: Ongoing

► **RECOMMENDED ACTION 20:**

Continue coordination with Southwest Indiana Disaster Resistant Community Corporation to select locations for tornado safe rooms. Potential sites are located throughout Vanderburgh County, including the City of Evansville and the Town of Darmstadt.

Mitigation Category: Structural Project
Responsible Office: Vanderburgh County Emergency Management Agency in conjunction with Southwest Indiana Disaster Resistant Communities and Darmstadt Town Board
Priority (H, M, L): Low
Cost Estimate: Staff Time / Existing Budget
Community Benefit: Life-Safety; Public education for residents within the community
Potential Funding: Existing Budgets
Schedule: Within the next year (November 2005)



GOAL #3: UTILIZE LATEST TECHNOLOGY AND DATA IN HAZARD MITIGATION ACTIVITIES

Objective 3.1: Maximize “Lead-Time” provided by an all-hazards warning system

RECOMMENDED ACTION 21:

Purchase and install stream gages and water table gages to provide flood warning capabilities.

Mitigation Category: Property Protection; Emergency Services; and Natural Resource Protection
Responsible Office: Building Commission
Priority (H, M, L): High
Cost Estimate: \$15,000
Community Benefit: Stream gages and water table gages are the first step toward a flood warning system. Although a flood warning system generally does not provide long-term damage reduction, it can alleviate health and safety risk by providing citizens time to escape and possibly remove belongings that could be damaged.
Potential Funding: USGS; Existing Budgets; HMGP and PDM Funding
Schedule: Coordination with USGS, within the next 5 years

RECOMMENDED ACTION 22:

Investigate the potential for utilizing mass e-mailing system for information distribution regarding multi-hazard information.

Mitigation Category: Emergency Services Measure
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): Medium
Cost Estimate: \$10,000
Community Benefit: Life-Safety; Hazard information readily available and updated for the residents of the community
Potential Funding: 5% state set aside from future HMGP funding
Schedule: Within the next five years

RECOMMENDED ACTION 23:

Expand warning siren coverage into new areas as development and housing expand.

Mitigation Category: Emergency Services Measure
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): Medium
Cost Estimate: \$45,000



Community Benefit: Life Safety
Potential Funding: HMGP and PDM Funds
Schedule: As necessary

RECOMMENDED ACTION 24:

Investigate the potential for utilizing the 211 system for Indiana.

Mitigation Category: Emergency Services Measure
Responsible Office: Vanderburgh County Emergency Management Agency
Priority (H, M, L): Low
Cost Estimate: \$10,000
Community Benefit: Life-Safety; Hazard information readily available and updated for the residents of the community
Potential Funding: Existing Budgets
Schedule: Within the next year (November 2005)



OTHER ACTION ITEMS CONSIDERED

Not all of the mitigation alternatives presented, discussed and considered by the CPT and PIAC became recommended action items within this plan. These alternatives may have been determined to not be cost-effective or supportive of other community goals and priorities. Additionally, some alternatives were determined to lack political and/or constituent support and funding. Mitigation alternatives considered, but not recommended or included in the priority Action item list are presented below.

GENERAL HAZARD

- Develop incentives for community to focus on natural hazards education.

Assessment: The CPT determined the Public Awareness Program, developed as Recommended Action Item #1, would be the first step toward educating the public on the risks and vulnerabilities to natural hazards. Providing accurate information in a unified manner across the community was considered to be the primary goal. A separate, stand-alone alternative for incentive development was not considered to be necessary at this time. Additionally, the continued campaign of giving away NOAA All-Hazard radios through the local news media (see Recommended Action #16) already serves as incentive for public participation.

SEVERE WEATHER HAZARDS

Severe weather hazards within the Evansville and Vanderburgh County area include drought, extreme temperatures, thunderstorms and high winds, tornadoes, and winter storms. Severe storms and tornadoes have been among the causes of significant losses to the community resulting in presidential disaster declarations. The CPT and PIAC discussed the following potential mitigation measures to address severe weather hazards:

- “GIS-based Emergency Notification” (Reverse 911) system.

Assessment: The CPT determined the “Reverse 911” system was financially not feasible for the community with a large initial set up fee, as well as, annual maintenance fee. Additionally, the number of telephone lines requiring continual maintenance was beyond the current EMA office capabilities. The current warning system was determined to be satisfactory.

- Development of tree-trimming program to lessen the risk of power outages by falling limbs.

Assessment: The CPT determined the Tree Advisory Board and City Arborist sufficiently enforce the City Code for planting, trimming, pruning and removal of trees on public property at the present time. The CPT, instead, recommended utilizing a training class for local contractors and licensed tree pruners in appropriate tree trimming practices. See Recommended Action #19.



- Take no action for severe weather hazards. .

Assessment: The CPT and PIAC determined that taking no action for the severe weather hazards would be unacceptable due to the significant losses to the community as noted in the multiple historic presidential disaster declarations.

FLOODING

Floodprone areas within the community have been categorized as neighborhood flooding; combined sewer related flooding; stream system flooding; and stream maintenance problems. The CPT and PIAC discussed the following potential mitigation measures to address stream maintenance problems:

- Improve maintenance and/or design of stormwater drainage ditches; and
- Develop enforcement mechanism for the maintenance of detention ponds located within subdivisions.

Assessment: The CPT discussed the manpower requirements these action items would necessitate. The CPT determined the recommended action item of developing formalized policies (level-of-service and extent-of-service) for maintenance of the stormwater drainage system was the preferred step toward maintenance of open channels and detention ponds at this time. See Recommended Action #4.

