# Scott County, Iowa Multi-Jurisdictional Hazard Mitigation Plan





**Approved** 

August 30, 2012

# Scott County Multi-Jurisdictional Hazard Mitigation Plan

# 2011

This document was prepared by:





### EXECUTIVE SUMMARY

The Scott County Multi-Jurisdictional Local Hazard Mitigation Plan was developed to meet the requirements of the Disaster Mitigation Act of 2000, also known as DMA 2000. DMA 2000 places increased emphasis on local mitigation planning. It requires local governments to develop and submit mitigation plans as a condition of receiving Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Program (HMGP) project funds from the Federal Emergency Management Agency (FEMA). These grant programs enable communities to be proactive in their hazard mitigation by minimizing or eliminating potential risk to hazards. In addition to supporting ongoing mitigation actions, the plan assesses the vulnerability of the planning area to all hazards referenced in the State of Iowa Hazard Mitigation Plan 2007. The Plan identifies priority mitigation actions and establishes a process for implementation and maintenance of the plan.

Scott County received a grant of HMGP planning funds to initiate the Local Hazard Mitigation Plan process. Sixteen of the incorporated municipalities, three community school districts, and one community college district in Scott County agreed to participate in order to make it a county-wide multi-jurisdictional plan. The active participation of all these jurisdictions is recorded within the plan document. As each jurisdiction adopts the plan, it receives the same eligibility to apply for and receive its own FEMA project funds as described above.

Requirements for FEMA approval of the plan document include adoption of the plan by the local governing body. Chapter Two of the plan documents the planning process used and public participation. The process included a planning committee made up of representatives of the participating jurisdictions who assisted in reviewing and refining plan draft sections. Each participating jurisdiction designated one or more primary contacts to receive information and to respond to requests for data pertinent to that jurisdiction. Although other representatives may have been called on to attend meetings or respond to data requests, the primary contact structure established some continuity in the flow of information for each jurisdiction. In addition, an extended advisory committee was invited to represent a broader range of community interests and expertise. A list of those who received mailings or attended meetings during the planning process is included as an appendix to the document. For public participation, Scott County made use of its website to keep the public informed as the plan was developed and drafted, including the schedule of planning committee meetings, which were open to the public. An e-mail subscription through the website was utilized to allow citizens the opportunity to receive additional information and news as the planning process progressed. In addition, a separate public notice was published on two separate occasions.

Chapter Three of the plan addresses hazard analysis and risk assessment. Sixteen natural and 24 human-caused hazards were identified for the planning area and profiled. A scoring methodology was agreed upon by the Planning Committee and was used as an objective means of establishing an initial priority ranking of the hazards. With review and consultation of the Planning Committee, the hazards identified as a first priority for the county-wide planning area as a whole include:

• Thunderstorm and Lightning

 Fixed Hazardous Materials Incident

- Flash Flood
- Windstorm
- River Flood
- Transportation of Hazardous Materials Incident

- Severe Winter Storm
- Structural Fire
- Tornado
- Hailstorm
- Energy Failure

As a requirement of a multi-jurisdictional plan, each individual jurisdiction has its own risk assessment section in the plan. These highlight where local conditions differ from the county-wide planning area as a whole and reflect local hazard priorities.

Chapter Four of the plan develops the mitigation strategy. First, local hazard mitigation goals and objectives were developed for the county-wide planning area. The Planning Committee identified mitigation actions to address a comprehensive range of categories including prevention, property protection, public education and awareness, natural resource protection, and structural projects. Using FEMA guidance, all mitigation actions considered were analyzed under STAPLEE criteria (STAPLEE is an acronym for Social, Technical, Administrative, Political, Legal, Economic, and Environmental criteria). Mitigation actions were selected to address first priority hazards with an emphasis on flood mitigation. Each jurisdiction was required to develop at least one mitigation action specific to that jurisdiction's local priorities. The priority mitigation actions provide justification for future funding requests and grant applications.

Chapter Five describes existing planning mechanisms that will assist participating jurisdictions in implementation of priority actions. This part also outlines procedures for monitoring, evaluating, and updating the Local Hazard Mitigation Plan. Based on federal requirements, once FEMA has reviewed and approved the plan document, it must be reviewed and updated every five years or in the event of a federal Presidential Disaster Declaration, whichever comes first. Chapter Five provides for the schedule of continued plan maintenance and continued public input.

### **GLOSSARY OF TERMS**

This is a list of commonly referenced terms throughout the plan document.

**ARCMAP** – GIS software from ESRI

**DFIRM** – Digital Flood Insurance Rate Map

**DMA 2000** – Disaster Mitigation Act of 2000

**DNR** – Department of Natural Resources

**DOT** – Department of Transportation

**ESRI** – Environmental Systems Research Institute

**FEMA** – Federal Emergency Management Agency

**FMA** – Flood Mitigation Assistance Grant

**GIS** – Geographic Information System

**HAZMAT** – Hazardous Materials

**HAZUS-MH** – Hazards U.S. Multi-Hazard; Program developed by FEMA to model losses from earthquakes, hurricane, and floods using GIS.

**HMGP** – Hazard Mitigation Grant Program

**IHSEMD** – Iowa Homeland Security and Emergency Management Division

**KBDI** – Keetch-Byram Drought Index

NCDC – National Climatic Data Center

NFIP – The National Flood Insurance Program

**NOAA** – National Oceanic and Atmospheric Administration

**NPMS** – National Pipeline Mapping System

NRCS – Natural Resources Conservation Service

**NSDI** – National Spatial Data Infrastructure

**NWS** – National Weather Service

**PDM** – Pre-Disaster Mitigation Grant

PHMSA – Pipeline and Hazardous Materials Safety Administration

**QCIA** – Quad Cities International Airport

**SHMT** – State Hazard Mitigation Team

**SRL** – Severe Repetitive Loss Grant

TORRO - Tornado and Storm Research Organization of the United Kingdom

**USDA** – United States Department of Agriculture

**USACE** – United States Army Corps of Engineers

**USGS** – United States Geological Survey

**WFAS** – Wildland Fire Assessment System

# TABLE OF CONTENTS

I.	Prerequisites	1
	Adoption by the Local Governing Body	1
	Plan Adoption	
	Participation	2
II.	Plan Process	3
	Who was involved	3
	Planning Area and Map	
	Advisory Group	
	Public Involvement	
	Existing Planning Mechanisms	6
	Participation in the National Flood Insurance Program	
	Demographics	
III.	Risk Assessment	15
	Identifying Hazards	15
	Profiling Hazards	
	Hazard Scoring Methodology	
	Final Hazard Score for Each Jurisdiction	
	Prioritizing Hazards	
	Hazard Profiles	
	Agro Terrorism	28
	Air Transportation Incident	30
	Animal/Crop/Plant Disease/Infestation	
	Biological Terrorism	
	Chemical Terrorism	42
	Communications Failure	44
	Conventional Terrorism	46
	Cyber Terrorism	48
	Dam Failure	50
	Drought	54
	Earthquake	57
	Enemy Attack	60
	Energy Failure	62
	Expansive Soils	64
	Extreme Heat	67
	Fixed-Hazardous Materials Incident	69
	Fixed-Radiological Incident	73

F	Flash Flood	. 76
(	Grass and Wildland Fires	. 80
F	Hailstorm	. 82
F	Highway Transportation Incident	. 85
F	Human Disease Incident	. 93
F	Human Disease Pandemic	. 95
I	_andslide	. 97
I	evee Failure	100
F	Pipeline Transportation Incident	102
F	Public Disorder	106
F	Radiological Terrorism	108
F	Railway Transportation Incident	110
F	River Flood	112
S	Severe Winter Storm	116
S	Sinkholes and Land Subsidence	119
S	Structural Failure	124
S	Structural Fire	127
Т	Thunderstorm and Lightning	130
Т	Tornado	133
Т	Transportation Hazardous Materials Incident	136
Т	Transportation Radiological Materials Incident	139
V	Waterway Incident	141
V	Windstorm	148
Asse	essing Vulnerability	150
(	Community Profile: Scott County, Iowa	150
(	Geography and Land Use	152
I	ocal History	153
F	Housing	155
I	nfrastructure	156
N	Medical and Healthcare	156
Ι	Demographics	157
F	Recreation and Tourism	158
Ι	Determining Community Assets	159
Criti	cal Facilities	162
Asse	ssing Vulnerability: Estimating Potential Losses	165
F	Floodplain	165
F	HAZUS-MH	168
I	_evee Inundation Areas	170

	Development Trends	172
	Population and Housing Trends	172
	Existing Land Use	178
	Future Land Use	178
	Demographics	180
	Individual Jurisdiction Risk Assessment Profiles	181
	City of Bettendorf	181
	City of Blue Grass	184
	City of Buffalo	185
	City of Davenport	187
	City of Dixon	191
	City of Donahue	192
	City of Eldridge	194
	City of LeClaire	196
	City of Long Grove	197
	City of Maysville	199
	City of McCausland	200
	City of New Liberty	202
	City of Panorama Park	203
	City of Princeton	204
	City of Riverdale	206
	City of Walcott	208
	Unincorporated Scott County	210
	Bettendorf Community School District	212
	Eastern Iowa Community College District (EICC) (Scott County Campuses)	215
	North Scott Community School District	216
	Pleasant Valley Community School District	218
IV.	Mitigation Strategy	221
	Local Hazard Mitigation Goals	221
	Hazard Mitigation Objectives	
	Identification and Analysis of Mitigation Actions	222
	Range of Mitigation Measures	
	Evaluation of Alternative Mitigation Actions	228
	Multi-Jurisdiction Mitigation Actions	229
V.	Plan Maintenance Process	
	Monitoring the Plan	
	Evaluating the Plan	
	Updating the Plan	
	- r	

=	tion Into Existing Planning Mechanisms	
Continued	l Public Involvement	252
Appendix I-1	Draft Resolution	255
Appendix I-2	Adoption Resolutions	259
Appendix II-1	Planning Committee List	283
Appendix II-2	Advisory committee Invitation Letter	287
Appendix II-3	Advisory Committee List	291
Appendix II-4	Public Hearing Information and Comments	295
Appendix II-5	2010 Census Data	311
Appendix III-1	Individual Jurisdiction Hazard Scores	315
Appendix III-2	Special Flood Hazard Area Maps	369
Appendix IV-1	STAPLEE Evaluation Information and Instructions	403
Appendix IV-2	City of Davenport Hazard mitigation Action comparison Table	2409
Appendix IV-3	Completed Individual Jurisdiction STAPLEE Forms	413
Jurisdictio	on: Bettendorf	
Jurisdictio	on: Blue Grass	442
Jurisdictio	on: Buffalo	450
Jurisdiction	on: Davenport	454
Jurisdictio	on: Dixon	467
Jurisdictio	on: Donahue	470
Jurisdictio	on: Eldridge	471
Jurisdiction	on: LeClaire	479
Jurisdictio	on: Long Grove	488
Jurisdictio	on: Maysville	491
Jurisdictio	on: McCausland	492
Jurisdictio	on: New Liberty	500
Jurisdictio	on: Panorama Park	508
Jurisdictio	on: Princeton	519
Jurisdiction	on: Riverdale	525
Jurisdiction	on: Walcott	529
Jurisdiction	on: Unincorporated Scott County	536
Jurisdiction	on: Bettendorf Community School District	550
	on: North Scott Community School District	
Jurisdictio	on: Pleasant Valley Community School District	553
	on: Eastern Iowa Community College District (EICC) Scott County Community College District (EICC)	
Appendix V-1	Plan Updates	557

# LIST OF MAPS

Map II-1 Planning Area	5
Map III-1 Airports and Heliports	
Map III-2 Emerald Ash Borer	
Map III-3 Dams and Levees	53
Map III-4 Standardized Precipitation Index (24 Months)	5 <i>6</i>
Map III-5 Seismic Hazards	59
Map III-6 Expansive Soils	66
Map III-7 Fixed Extreme Hazardous Materials Sites	72
Map III-8 Fixed Radiological Areas	75
Map III-9a Crashes	89
Map III-9b Crashes – Inset	91
Map III-10 Slope	99
Map III-11 Pipelines	105
Map III-12 Special Flood Hazard Area with Repetitive Loss Properties	
Map III-13 Karst Areas	123
Map III-14 Major Roadways and Bridges	126
Map III-15 Waterway Mile Marker	147
Map III-16 Existing Land Use	154
Map III-17 Special Flood Hazard Area with Community Assets	163
Map III-18 Land Cover	
Map III-19 Future Land Use	177
Map III-20 Iowa Community Colleges	214
LIST OF TABLES	
Table II-1 Record of Review	7
Table III-1 Comparison of Potential Natural Hazards	
Table III-2 Comparison of Potential Man-Made/ Human-Caused Hazards	
Table III-3 Hazards Not Profiled in the Plan	
Table III-4 Hazard Scoring Methodology	19
Table III- 5 Weighted Hazard Scores by Jurisdiction	
Table III-6 Hazard Scores Weighted by Population	
Table III-7 Initial Hazard Prioritization for Compiled County-Wide Area	
Table III-8 Adjusted Hazard Priorities for Compiled County-Wide Area	
Table III-9 HAZUS Modeled River Flood Events for Selected Dates	
Table III-10 Land Value of Levee Inundation Areas	
Table IV-1 Multi-Jurisdictional Priority Actions	
Table A-II-5 Scott County Population 1950 - 2010	

### I. PREREQUISITES

### Adoption by the Local Governing Body

Scott County, Iowa is the subgrantee for the FEMA Hazard Mitigation Grant Program (HMGP) agreement for planning through the Iowa Homeland Security and Emergency Management Division (IHSEMD). Scott County is, therefore, the lead jurisdiction in a multi-jurisdictional plan process for the County and its constituent participating municipalities. As such, Scott County has adopted this Multi-Jurisdiction Local Hazard Mitigation Plan process and document in such form as it is approved by FEMA review. A copy of the signed resolution as adopted <u>(on specific date to be filled in later as appropriate) follows.</u>

### Plan Adoption

In addition to Scott County, sixteen incorporated municipalities, three community school districts, and one community college district have participated in the Multi-Jurisdiction Local Hazard Mitigation planning process with Scott County in order to receive individual approval of the plan. A draft resolution was provided as a sample for municipalities as shown in Appendix I-1. Each jurisdiction has adopted the plan process and document as dated below. A copy of each signed resolution as adopted is included in an Appendix I-2.

### **Participating Jurisdiction**

### **Date of Plan Adoption**

Scott County (includes unincorporated)

City of Bettendorf

City of Blue Grass

City of Buffalo

City of Davenport

City of Dixon

City of Donahue

City of Eldridge

City of LeClaire

City of Long Grove

City of Maysville

City of McCausland

City of New Liberty

City of Panorama Park

City of Princeton

City of Riverdale

City of Walcott

Bettendorf Community School District

North Scott Community School District

Pleasant Valley Community School District

Eastern Iowa Community College District (Scott

County Campuses)

### **Participation**

In addition to Scott County, incorporated municipalities within the County participated in the local hazard mitigation plan process as listed above except for the City of Durant. The corporate limits of the City of Durant crosses three counties, with Cedar County being the largest portion. With smaller portions in Muscatine and Scott Counties, the City of Durant was not included in the Scott County Multi-Jurisdictional Hazard Mitigation Plan as a participating jurisdiction. However, since the geography of the county-wide plan includes part of Durant, the city was contacted as part of the larger plan advisory group regarding information about the plan process.

The remaining participating jurisdictions took part in the planning process as more fully described in the "Planning Process" section. At the initial kick-off meeting held June 10, 2009, the planning committee discussed and determined satisfactory participation in the plan process consisted of the following: designate a primary contact; attend the majority of the planning meetings; submit inventory and review of existing planning mechanisms; submit a list of communities' critical facilities; score identified hazards from jurisdiction perspective; provide input and review individual jurisdiction's risk assessment; submit priority mitigation actions and their reviewed assessment; and review and comment on the draft plan. All of the above listed jurisdictions have met the necessary requirements to be considered a participating jurisdiction.

Each jurisdiction designated a primary contact and assigned staff to attend meetings as part of the core planning committee. The planning committee was responsible for directing staff research, reviewing document drafts, and approving the plan process and final document. In addition to attendance at meetings, local jurisdictions responded to requests for data and provided information when conditions in an individual jurisdiction varied from the entire county-wide planning area.

### II. PLAN PROCESS

Scott County was awarded a grant from the Federal Emergency Management Agency (FEMA) under its Hazard Mitigation Grant Program HMGP to develop a Multi-Jurisdiction Local Hazard Mitigation Plan. The grant is administered through the Iowa Homeland Security and Emergency Management Division (IHSEMD). The planning grant agreement between Scott County and IHSEMD was fully executed on April 22, 2009 with an approved performance period dated from March 3, 2009 through February 3, 2012. Scott County contracted with Bi-State Regional Commission to guide the preparation of a Local Hazard Mitigation Plan that meets the requirements of the Disaster Mitigation Act of 2000 with a contract date to start May 1, 2009. To assure compliance with the process for developing the plan document, the Local Mitigation Plan Review Crosswalk from FEMA dated July 1, 2008 was used for guidance in meeting the requirements of the plan.

The City of Davenport adopted its Pre-Disaster Mitigation Plan on February 21, 2007. The Scott County Multi-Jurisdictional Hazard Mitigation Plan will act as the City of Davenport's update to the Pre-Disaster Mitigation Plan. Explanations of how the City's Pre-Disaster Mitigation Plan has been changed as an update can be found throughout the plan.

The Scott County Multi-Jurisdictional Hazard Mitigation Plan will be a new plan for Scott County, the remaining 15 incorporated municipalities, three community school districts, and one community college district.

The first meeting of the Planning Committee was held on June 10, 2009. This was an introductory meeting for the municipal representatives. Bi-State staff presented an overview of the plan requirements as outlined in FEMA guidance, with particular note of multi-jurisdictional requirements for individual participating communities. This introduction included reference to the 2007 State of Iowa Hazard Mitigation Plan and the hazards that might be considered in the hazard assessment portion of the plan. A schedule of monthly Planning Committee meetings was agreed upon.

### Who was involved

Mr. Tim Huey, Planning and Development Director, was designated as lead staff for Scott County in development of the plan and served as the principal contact person for Bi-State staff. Mr. Huey made the initial contact with constituent municipalities in Scott County regarding planning participation. It was determined by staff to follow a Combination Model for participation in the multi-jurisdiction plan. The majority of the jurisdictions participated with Direct Representation; however the Cities of New Liberty and Panorama Park elected to participate by Authorized Representation due to its inability to provide staff who could regularly attend meetings. Mr. Huey was appointed as authorized representative to both New Liberty and Panorama Park by each jurisdiction respectively. Bi-State Regional Commission was contracted by Scott County to assist with grant administration, to support the plan process, and to research and write the plan document. The core Planning Committee is made up of staff and representatives of sixteen participating municipalities, three community school districts and one community college district in addition to Scott County as follows:

City of Bettendorf City of Buffalo
City of Blue Grass City of Davenport

City of Dixon City of Princeton
City of Donahue City of Riverdale
City of Eldridge City of Walcott

City of LeClaire Scott County (includes unincorporated)
City of Long Grove Bettendorf Community School District
City of McCausland North Scott Community School District

City of Maysville Pleasant Valley Community School District

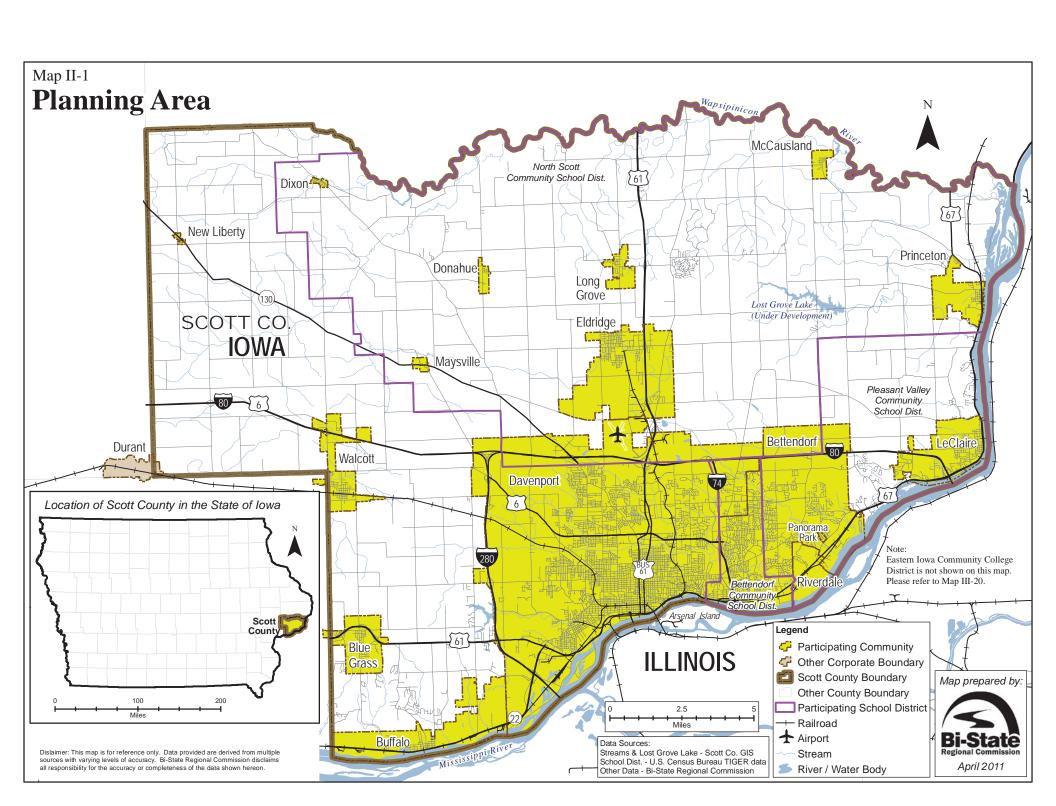
City of New Liberty Eastern Iowa Community College District (Scott

City of Panorama Park County Campuses)

It was determined that the municipalities that agreed to participate in the multi-jurisdictional plan would designate a primary contact for all correspondence. This would follow the Direct Representation Model as suggested in FEMA guidance for multi-jurisdictional plans. This primary contact, or another designated official or staff person, would attend planning meetings and form the core Planning Committee. The Planning Committee would be responsible for guiding decisions about the contents of the plan in relation to FEMA guidance and for reviewing staff-prepared documents. Since Planning Committee members would also be representing communities looking for individual FEMA approval of the multi-jurisdictional plan, they would also be responsible for noting any variation from the overall planning area for their community. Members of the Planning Committee and staff are listed in Appendix II-1. This includes primary contacts and other community representatives who attended meetings.

### Planning Area and Map

The planning area includes all of Scott County with participation of constituent municipalities as described above. A base map of the planning area was developed as follows (Map II-1) showing jurisdictional boundaries and indicating which are participating in the plan process. The base planning area map includes rivers and water bodies; highways, major roadways, and roads; railroads; and streams and creeks. This map will be used to overlay identified hazard areas, vulnerable facilities, and other features with a geographic reference in following parts of the plan document.



### Advisory Group

In addition to the Planning Committee, a broader list of community groups and agencies was developed using FEMA guidance to add more participation and expertise to the planning process. Representatives were invited to participate in the planning process in an advisory capacity. They would be available to staff as resources in their respective areas of interest and provide an additional layer of review in development of document drafts. A sample list of possible contacts was brought to the Planning Committee at its first meeting. As noted in the previous "Prerequisites" section, the City of Durant was included on the Advisory Group as a neighboring community, since it was not actively participating in the plan process. An invitation list of contacts was further developed. A copy of the invitation letter is included as Appendix II-2. A list of agencies contacted, indicating those who actively participated, is included as Appendix II-3. Media contacts were included in the Advisory Group invitation, which provided another opportunity for public information and participation.

### Public Involvement

At its first kick-off meeting, the Planning Committee discussed public involvement and participation. It was agreed that all the scheduled Planning Committee meetings would be open to the public. Scott County would make use of its website, http://www.scottcountyiowa.com/ planning/hazmit.php to provide information about the planning process, including meeting information and schedule, links to related mitigation information and plan guidance, and draft document sections for review and comment. Scott County has the ability to send out e-mail updates through a subscription process to those who would like updated information on the planning process. Those e-mails were sent out monthly as notification of upcoming meetings. Approximately 80 people subscribed to receive e-mail updates. Participating jurisdictions were encouraged to make use of their own websites to link to this information. In order to assure formal notification of public participation in the plan, notice of meetings were published in newspapers of general circulation on at least two occasions, once during plan draft development and once prior to adoption of the plan. Publication of such notices would be included in the three official newspapers used for countywide notices: Quad City Times, North Scott Press, and Bettendorf News. Participating jurisdictions were encouraged to have their own public meetings, and staff offered to make presentations to individual communities on request. The first public meeting with formal notification was held May 6, 2010. Information was distributed that all subsequent meetings of the planning committee would be considered open to the public. One additional public hearing was conducted on September 19, 2011 for review of a draft plan before being submitted to IHSEMD for review. Any public comments are included in Appendix II-4.

## Existing Planning Mechanisms

In addition to the persons included in the planning process, many written resources, existing plans, studies, reports, and technical information were reviewed and incorporated into the plan process as appropriate. Technical resources used to develop the hazard profiles are referenced to each profiled hazard, but general references of note include:

- FEMA Local Hazard Mitigation Plan Review Crosswalk July 1, 2008
- FEMA State and Local Mitigation Planning How-To Guides
- 2007 State of Iowa Hazard Mitigation Plan
- 2010 State of Iowa Hazard Mitigation Plan

- Iowa Hazard Analysis and Risk Assessment
- Davenport Pre-Disaster Mitigation Plan 2007

Participating jurisdictions were asked to inventory and review existing planning and technical documents within their own communities that could be incorporated into the plan (Table II-2).

Table II-1 Record of Review

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
City of Bett	endorf	
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Building Codes	Y	N
Floodplain Management Ordinance	Y	Y
Stormwater Management Ordinance	Y	Y
Site Plan Review Requirements	Y	N
Solid Waste and Hazardous Waste Regulations	Y	N
Comprehensive/ Land Use Plan	Y	Y
Capital Improvement Plan	Y	N
Redevelopment Plan	Y	N
Open Space Plan	Y	N
Economic Development Plan	Y	Y
Emergency Response Plan	Y	Y
Emergency Management Plan	Y	Y
Long Range Transportation Plan	Y	Y
Recreation Plan	Y	Y
Transportation Improvement Plan	Y	N
Existing Land Use Map	Y	Y
Flood Insurance Study	Y	Y
Downtown Redevelopment Program	Y	N
Stormwater Management Program	Y	Y
City of Blue	Grass	
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Building Codes	Y	N
Site Plan Review Requirements	Y	N
Solid Waste and Hazardous Waste Regulations	Y	N
Comprehensive/ Land Use Plan	Y	Y
Open Space Plan	Y	N

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)		
Existing Land Use Map	Y	Y		
City of Buffa	alo			
Zoning Ordinance	Y	N		
Subdivision Regulations	Y	N		
Building Codes	Y	N		
Floodplain Management Ordinance	Y	Y		
Stormwater Management Ordinance	Y	Y		
Site Plan Review Requirements	Y	N		
Solid Waste and Hazardous Waste Regulations	Y	N		
Capital Improvement Plan	Y	N		
Redevelopment Plan	Y	N		
Existing Land Use Map	Y	Y		
Flood Insurance Study	Y	Y		
MSA Stormwater Outfall Study	Y	Y		
Stormwater Management Program	Y	Y		
City of Davenport				
Zoning Ordinance	Y	Y		
Subdivision Ordinance Building Codes	Y	N		
Floodplain Management Ordinance	Y	Y		
Stormwater Management Ordinance	Y	Y		
Erosion Control Ordinance	Y	N		
Site Plan Review Requirements	Y	Y		
Solid Waste and Hazardous Waste Regulations	Y	N		
Comprehensive/ Land Use Plan	Y	Y		
Capital Improvement Plan	Y	N		
Redevelopment Plan	Y	N		
Regional Development Plan	Y	N		
Watershed Protection Plan	Y	Y		
Open Space Plan	Y	N		
College Campus Development Plan	Y	N		
Economic Development Plan	Y	Y		
Emergency Response Plan	Y	Y		
Emergency Management Plan	Y	Y		
Long Range Transportation Plan	Y	Y		
Transportation Improvement Plan	Y	N		
Riverfront Development Plan	Y	Y		
Critical Facilities Map	Y	Y		

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)		
Existing Land Use Map	Y	Y		
Flood Insurance Study	Y	Y		
Hazard Vulnerability Study	Y	Y		
Historic Preservation	Y	Y		
Downtown redevelopment Program	Y	N		
Stormwater Management Program	Y	Y		
City of D	ixon			
NONE	N/A	N/A		
City of Do				
Zoning Ordinance	Y	N		
Subdivision Regulations	Y	N		
Building Codes	Y	N		
Floodplain Management Ordinance	Y	Y		
Site Plan Review Requirements	Y	N		
Solid Waste and Hazardous Waste Regulations	Y	N		
Comprehensive/ Land Use Plan	Y	Y		
Existing Land Use Map	Y	Y		
Flood Insurance Study	Y	Y		
City of Eldridge				
Zoning Ordinance	Y	N		
Subdivision Regulations	Y	N		
Building Codes	Y	N		
Floodplain Management Ordinance	Y	Y		
Stormwater Management Ordinance	Y	Y		
Site Plan Review Requirements	Y	N		
Solid Waste and Hazardous Waste Regulations	Y	N		
Comprehensive/ Land Use Plan	Y	Y		
Capital Improvement Plan	Y	N		
Recreation Plan	Y	N		
Existing Land Use Map	Y	Y		
Flood Insurance Study	Y	Y		
City of Le	Claire			
Zoning Ordinance	Y	N		
Subdivision Regulations	Y	N		
Building Codes	Y	N		
Floodplain Management Ordinance	Y	Y		

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)			
Stormwater Management Ordinance	Y	Y			
Site Plan Review Requirements	Y	N			
Solid Waste and Hazardous Waste Regulations	Y	N			
Comprehensive/ Land Use Plan	Y	Y			
Emergency Response Plan	Y	Y			
Long Range Transportation Plan	Y	N			
Recreation Plan	Y	N			
Transportation Improvement Plan	Y	N			
Critical Facilities Map	Y	Y			
Existing Land Use Map	Y	Y			
Flood Insurance Study	Y	Y			
Stormwater Management Program	Y	Y			
Downtown Cultural & Entertainment District Designation (IDED)	Y	N			
City of Long Grove					
Zoning Ordinance	Y	N			
Subdivision Ordinance	Y	N			
Building Codes	Y	N			
Comprehensive/ Land Use Plan	Y	Y			
Capital Improvement Plan	Y	N			
Watershed Protection Plan	Y	Y			
Emergency Response Plan	Y	Y			
Emergency Management Plan	Y	Y			
Existing Land Use Map	Y	Y			
City of Maysv	ille				
Zoning Ordinance	Y	N			
Solid Waste and Hazardous Waste Regulations	Y	N			
City of McCaus	land				
Zoning Ordinance	Y	N			
Subdivision Regulations	Y	N			
Floodplain Management Ordinance (underway)	N/A	N/A			
Stormwater Management Ordinance	Y	Y			
Site Plan Review Requirements	Y	N			
Solid Waste and Hazardous Waste Regulations	Y	N			
Existing Land Use Map	Y	Y			

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
City of New I	iberty	
NONE	N/A	N/A
City of Panorai	ma Park	
Floodplain Management Ordinance	Y	Y
City of Princ	ceton	
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Building Codes	Y	N
Floodplain Management Ordinance	Y	Y
Solid Waste and Hazardous Waste Regulations	Y	N
Comprehensive/ Land Use Plan	Y	Y
Capital Improvement Plan	Y	N
Emergency Response Plan	Y	Y
Existing Land Use Map	Y	Y
City of Rive	rdale	
Solid Waste and Hazardous Waste Regulations	Y	N
Building Codes	Y	N
Floodplain Management Ordinance	Y	Y
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Stormwater Management Program	Y	Y
City of Wal	lcott	
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Building Codes	Y	N
Floodplain Management Ordinance	Y	Y
Stormwater Management Ordinance	Y	Y
Site Plan Review Requirements	Y	N
Solid Waste and Hazardous Waste Regulations	Y	N
Comprehensive/ Land Use Plan	Y	Y
Capital Improvement Plan	Y	N
Scott Cour	nty	
Zoning Ordinance	Y	N
Subdivision Regulations	Y	N
Building Codes	Y	N
Floodplain Management Ordinance	Y	Y

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)			
Stormwater Management Ordinance	Y	Y			
Site Plan Review Requirements	Y	N			
Solid Waste and Hazardous Waste Regulations	Y	N			
Comprehensive/ Land Use Plan	Y	Y			
Economic Development Plan	Y	Y			
Emergency Response Plan	Y	Y			
Emergency Management Plan	Y	Y			
Long Range Transportation Plan	Y	Y			
Recreation Plan	Y	N			
Transportation Improvement Plan	Y	N			
Critical Facilities Map	Y	Y			
Existing Land Use Map	Y	Y			
Flood Insurance Study	Y	Y			
Bettendorf Community	School District				
Crisis Management Plan	Y	Y			
North Scott Community	School District				
North Scott Safety Policy	Y	Y			
Pleasant Valley Communi	ty School District				
Pleasant Valley CSD Crisis Response Guide	Y	Y			
Eastern Iowa Community	y College District				
Emergency Readiness Plan	Y	Y			

### Participation in the National Flood Insurance Program

The National Flood Insurance Program (NFIP) was established in 1968 to mitigate future flood losses nationwide through sound, community-enforced building and zoning ordinances and to provide access to affordable, federally backed flood insurance protection for property owners. Participation in the NFIP is based on an agreement between local communities and the Federal Government that states that if a community will adopt and enforce a floodplain ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community and a financial protection against flood losses. Each participating jurisdictions' floodplain is mapped in a Flood Insurance Rate Map (FIRM) which indicates where areas with a 1% or a 0.20% annual chance of flooding in any given year. The FIRM helps determine the premium a property owner pays for the flood insurance. Each jurisdiction's FIRMs (also known as Special Flood Hazard Areas) are included in Appendix III-2.

The following jurisdictions have adopted and enforce floodplain ordinances as participating communities in the NFIP and will continue compliance:

- City of Bettendorf
- City of Buffalo

- City of Davenport
- City of Donahue

- City of Eldridge
- City of LeClaire
- City of Panorama Park

- City of Riverdale
- City of Walcott
- Scott County

The following jurisdictions do not have FIRMs and/or are not participating in the NFIP:

- City of Blue Grass
- City of Dixon
- City of Long Grove
- City of Maysville

- City of McCausland
- City of New Liberty
- City of Princeton

The Cities of Blue Grass and McCausland have both shown interest in taking the necessary steps to participating in the NFIP and are evaluating the merits of participating in the NFIP.

### **Demographics**

This plan utilized the newest Census data that was available at the time complied. However, the 2010 Census data was released (February and May 2011) after the majority of the plan was written. The weighted hazard scoring was done with 2009 Census population estimates because the 2010 Census information was not available at the time hazard scoring was completed. The individual jurisdiction profiles have both the 2009 Census population estimates and the 2010 census population counts for each jurisdiction, and the population ranking was done using the 2010 Census population counts. Appendix II-5 includes a table with the populations of Scott County from 1950 to 2010 to show population growth and decline within Scott County.

### III. RISK ASSESSMENT

### Identifying Hazards

At the Planning Committee's kick-off meeting, participants were introduced to types of hazards to be considered in the Local Hazard Mitigation Plan process. Sources of possible hazards to consider included FEMA's required natural hazards, the State of Iowa Hazard Mitigation Plan 2007, and the City of Davenport Pre-Disaster Mitigation Plan 2007. Table III-1 is a comparison table of natural hazards from each of these sources.

Table III-1 Comparison of Potential Natural Hazards

FEMA	Iowa 2007	Davenport 2007
Avalanche		
Coastal Erosion		
Coastal Storm		
Dam Failure	Dam Failure	Dam Failure
Drought	Drought	Drought
Earthquake	Earthquakes	Earthquake
Expansive Soils	Expansive Soils	Expansive Soils
Extreme Heat	Extreme Heat	Extreme Heat
Flood	Flash Flood	Flash Flood
	River Flooding	River Flood
Hailstorm	Hailstorms	Hailstorm
Hurricane		
Land Subsidence		
Landslide	Landslide	Landslide
	Levee Failure	Levee Failure
Severe Winter Storm	Severe Winter Storms	Severe Winter Storm
	Sink Holes	
	Thunderstorm & Lightning	Thunderstorm & Lightning
Tornado	Tornadoes	Tornado
Tsunami		
Volcano		
Wildfire	Grass or Wildland Fire	Grass or Timber Fires
Windstorm	Windstorm	Windstorm

In addition to natural hazards, which are required for consideration in the Local Hazard Mitigation Plan, the Planning Committee also reviewed potential man-made or human-caused hazards. The State of Iowa Hazard Mitigation Plan 2007 and the City of Davenport Pre-Disaster Mitigation Plan 2007 were reviewed. Table III-2 is a list of man-made or human-caused hazards from the plans.

Table III-2 Comparison of Potential Man-Made/ Human-Caused Hazards

Iowa 2007	Davenport 2007
Agro-Terrorism	
Air Transportation Incident	Air Transportation Incident
Animal/Plant/Crop Disease	Animal Disease Epidemic
Bioterrorism	Biological Terrorism
Chemical Terrorism	Chemical Terrorism
Communications Failure	Communications Failure
Conventional Terrorism	Conventional Terrorism
Cyber Terrorism	Cyber Terrorism
Enemy Attack	Enemy Attack
Energy Failure	Energy Disruption
Fixed Hazardous Materials Incident	Fixed Hazardous Materials Incident
Fixed Radiological Incident	Fixed Radiological Incident
Highway Transportation Incident	Highway Transportation Incident
Human Disease Incident	
Human Disease Pandemic	Human Disease Epidemic
Pipeline Transportation Incident	Pipeline Incident
Public Disorder	Public Disorder
Radiological Terrorism	Radiological Terrorism
Radiological Transportation	Transportation Radiological Incident
Rail Transportation Incident	Rail Transportation Incident
Structural Failure	Structural Failure
Structural Fire	Structural Fire
Transportation of Hazardous Materials Incident	Transportation of Hazardous Materials Incident
Waterway Incident	Waterway/Waterbody Incident

The Planning Committee eliminated some hazards from further profiling because they do not occur in the planning area or their effects are not considered significant in relation to other hazards. Table III-3 lists these hazards and provides a brief explanation for their elimination.

Table III-3 Hazards Not Profiled in the Plan

Hazard	Explanation for Omission
Avalanche	There are no mountains in the planning area.
Coastal Erosion	There are no coastal areas near the planning area.
Coastal Storm	There are no coastal areas near the planning area.
Hurricane	There are no coastal areas near the planning area.
Tsunami	There are no coastal areas near the planning area.
Volcano	There are no volcanic mountains in the planning area.

The Planning Committee decided to combine Land Subsidence with Sinkholes, since portions of Scott County are mined, and ground collapse has been known to happen, as will be described in the hazard profile. During the planning process, the State of Iowa published a Hazard Mitigation Plan Update (2010), where significant changes were made to the number of hazards in the plan. The Planning Committee decided to explore the hazards as outlined in the State of Iowa Hazard Mitigation Plan 2010 when updating the Scott County Plan in the future.

Based on the process discussed above, the Planning Committee identified a total of 40 hazards for the Scott County planning area. The City of Davenport agreed to update their plan to include the four extra hazards. These hazards are listed below in alphabetical order.

Agro-Terrorism Human Disease Pandemic

Air Transportation Incident Landslide

Animal/Plant/Crop Disease Levee Failure

Biological Terrorism Pipeline Transportation Incident

Chemical Terrorism Public Disorder

Communications Failure Radiological Terrorism

Conventional Terrorism Railway Transportation Incident

Cyber Terrorism River Flood

Dam Failure Severe Winter Storm

Drought Sinkholes and Land Subsidence

Earthquake Structural Failure

Enemy Attack Structural Fire

Energy Failure Thunderstorm and Lightning

Expansive Soils Tornado

Extreme Heat Transportation of Hazardous Materials

Fixed Hazardous Materials Incident

Transportation of Radiological Materials

Fixed Radiological Incident Incident

Flash Flood Waterway Incident

Grass or Wildland Fire Windstorm

Hailstorm

Highway Transportation Incident

**Human Disease Incident** 

### Profiling Hazards

The Planning Committee selected to use the format for profiling hazards outlined in the Iowa Hazard Analysis and Risk Assessment: 2003 Guidance. This format provides a worksheet that combines the required elements of hazard profiling for each hazard. The worksheet format was also used by neighboring Muscatine County, Iowa and Rock Island County, Illinois in addition to the City of Davenport's Pre-Disaster Mitigation Plan 2007. The worksheet provides space for a narrative description of the following categories:

Definition Vulnerability (of planning area to future

events)

Description Location

Maximum Extent

Historical Occurrence Severity of Impacts

Probability (of future events)

Speed of Onset

The hazard profiles are provided for all of the Scott County planning area. As part of the multijurisdictional participation of this plan, additions or exceptions from the general planning area are noted for individual jurisdictions in their individual risk assessment profiles later in this chapter to the extent available and reported.

### Hazard Scoring Methodology

Following the review of the hazard profiles, the Planning Committee utilized the methodology from the 2010 State of Iowa Hazard Mitigation Plan to evaluate the identified hazards for further consideration, ranking, and priority. The City of Davenport Pre-Disaster Mitigation Plan did not include this methodology; however the City of Davenport rescored their hazards according to this methodology. The cascading matrix done in the previous plan was not done for the plan update. The participating jurisdictions were asked to discuss each hazard and review data and information for each hazard. The Community School Districts (CSD) did not participate in the hazard scoring exercise due to the duplicative nature of their boundaries. The areas the CSDs serve are already being covered in the hazard scoring process by a participating governmental jurisdiction. It was important for the jurisdictions to score each hazard as a single event. Only effects from that particular hazard were to be considered in the analysis.

This hazard analysis seeks to strike a balance between evaluation criteria; for example, the evaluation of low probability, high impact events versus high probability, low impact events. Each category of a particular hazard was rated on a scale of one through four in all the scoring guide tables outlined in Table III-4 due to the large variation in historical occurrence, probability, percentage of vulnerability and spatial extent, the number of casualties, or the value of the property damaged. Using this scale provided the best option in comparing each aspect of vastly different types of hazards.

### Table III-4 Hazard Scoring Methodology

		the likelihood of the hazard occurring again in the future, considering both the historical								
Score	Description	d and the projected likelihood of the hazard occurring in any given year								
1	Unlikely  Less than 10% probability in any given year (up to 1 in 10 chance of occurring). History of events is less than 10% likely or the event is unlikely, but there is a possibility of its occurrence.									
2	Occasional Between 10% and 20% probability in any given year (up to 1 in 5 chance of occurring), history of events is greater than 10% but less than 20% the event could possibly occur.									
3	Likely  Between 20% and 33% probability in any given year (up to 1 in 3 chance of occurring), history of events is greater than 20% but less than 33% the event is likely to occur.									
4	Highly Likely	More than 33% probability in any given year (event has a 1 in 1 chance of occurring), history of events is greater than 33% likely or the event is highly likely to occur.								
		Assessment of severity in terms of injuries and fatalities, personal property, and legree and extent with which the hazard affects the county								
Score	Description									
1	Negligible	Less than 10% of property severely damaged, shutdown of facilities and services for less than 24 hours, and/or injuries/illnesses treatable with first aid.								
2	Limited	10% to 25% of property severely damaged, shutdown of facilities and services for more than a week, and/or injuries/illnesses that do not result in permanent disability.								
3	Critical	25% to 50% of property severely damaged, shutdown of facilities and services for at least 2 weeks, and/or injuries/illnesses that result in permanent disability.								
4	Catastrophic	More than 50% of property severely damaged, shutdown of facilities and services for more than 30 days, and/or multiple deaths.								
Warnin	g Time: Rating	g of the potential amount of warning time that is available before the hazard occurs								
Score	Description									
1	More than 24	hours warning time								
2	12 to 24 hours	s warning time								
3	6 to 12 hours	warning time								
4	Minimal or no	o warning (up to 6 hours warning)								
Duratio		of the duration of time that the hazard will affect the state								
Score	Description									
1	Less than 6 ho	ours								
2	Less than 1 da	ny								
3	Less than 1 w	eek								
4	More than 1 v	veek								

The hazard scoring worksheet for each jurisdiction was collected and can be found in Appendix III-1. The scores from each jurisdiction were then weighted according to the methodology presented in the 2010 State of Iowa Hazard Mitigation Plan. The formula used for weighing the hazard scores was:

 $(Probability \ x \ .45) + (Magnitude/Severity \ x \ .30) + (Warning Time \ x \ .15) + (Duration \ x \ .10) = Total Weighted Score$ 

# Final Hazard Score for Each Jurisdiction

The weighted scores for each jurisdiction are shown in Table III-5. The scores were then weighted by the jurisdiction's percentage of population within Scott County to reflect the distribution of population affected by each hazard. The scores from each jurisdiction were then added together to create a Scott County-wide hazard ranking. These scores are show in Table III-6.

Table III- 5
Weighted Hazard Scores by Jurisdiction

	Weighted Hazard Scores by Jurisdiction																
	City of Bettendorf	City of Blue Grass	City of Buffalo	City of Davenport	City of Dixon	City of Donahue	City of Eldridge	City of LeClaire	City of Long Grove	City of Maysville	City of McCausland	City of New Liberty	City of Panorama Park	City of Princeton	City of Riverdale	City of Walcott	Scott County
			)									)	)				
Agro-Terrorism	2.05	1.10	1.00	1.95	1.00	1.75	2.30	1.65	1.30	1.65	2.65	1.55	1.55	2.65	1.30	2.05	1.45
Air Transportation Incident	1.55	4.00	1.00	1.80	1.00	1.85	2.00	2.05	1.90	1.55	2.05	1.85	1.85	2.05	2.65	1.65	1.85
Animal/Plant/Crop Disease	3.25	2.05	1.00	1.30	1.00	2.05	2.50	1.30	2.05	1.75	2.65	3.25	1.00	2.65	1.30	1.30	3.25
Biological Terrorism	2.65	1.45	1.00	2.05	1.00	2.05	2.35	1.75	2.65	1.65	2.65	2.35	2.35	2.65	2.65	2.65	2.35
Chemical Terrorism	2.25	3.55	1.00	2.05	1.00	1.95	3.25	1.65	2.65	1.55	2.65	2.25	2.25	2.65	2.65	2.65	2.25
Communications Failure	1.85	3.30	1.00	1.65	1.00	1.95	1.95	2.05	2.80	1.75	2.35	1.95	1.95	2.35	2.25	1.95	1.95
Conventional Terrorism	1.95	1.45	1.00	1.00	1.00	2.05	2.40	2.65	1.65	1.45	2.65	1.85	1.85	2.65	2.65	1.95	1.85
Cyber Terrorism	2.70	3.15	1.00	2.40	1.00	1.95	1.55	2.40	2.00	1.75	2.35	1.85	1.85	2.35	2.40	2.10	1.85
Dam Failure	1.25	1.45	1.00	1.30	1.00	2.05	1.00	1.60	1.75	1.00	1.90	1.00	1.00	1.90	2.05	1.00	2.20
Drought	2.50	2.50	1.75	1.30	1.00	2.50	2.50	1.30	2.05	1.75	2.80	1.30	1.30	3.25	2.65	1.45	1.30
Earthquake	1.45	1.55	1.00	2.20	1.00	1.45	2.35	1.45	2.05	1.45	1.55	1.45	1.45	1.55	1.45	1.45	1.45
Enemy Attack	2.65	1.45	1.00	2.80	1.00	2.35	2.20	1.40	1.20	1.20	2.65	2.20	2.20	2.65	2.55	1.45	2.20
Energy Failure	2.90	2.50	2.80	1.95	1.00	2.70	3.20	2.40	2.85	1.65	2.60	1.90	1.90	2.60	2.25	2.55	1.95
Expansive Soils	1.00	1.45	1.00	1.20	1.00	1.45	1.45	1.30	1.35	1.45	2.05	1.00	1.00	2.05	1.60	1.00	1.00
Extreme Heat	2.10	1.95	2.80	1.95	1.00	2.20	2.55	1.95	1.95	1.65	3.15	2.55	2.55	3.15	2.25	1.65	2.55
Fixed Hazardous Materials Incident	2.90	1.95	1.30	2.85	1.00	1.95	2.10	1.65	1.65	1.65	2.35	1.55	1.55	2.35	2.05	2.15	2.10
Fixed Radiological Incident	1.85	1.50	1.00	1.95	1.00	1.80	1.00	1.95	1.90	1.45	2.35	2.20	2.20	2.35	2.65	1.00	2.20
Flash Flood	3.15	1.95	2.80	2.75	1.00	2.40	1.60	1.90	1.40	1.00	3.40	1.00	2.15	3.40	2.70	1.40	2.15
Grass or Wildland Fire	2.65	2.75	2.35	1.55	1.00	3.10	1.90	2.00	1.90	2.10	3.30	1.45	1.45	3.30	2.80	1.45	2.45
Hailstorm	3.05	3.40	2.80	2.20	1.00	2.20	2.80	1.90	2.20	1.45	2.95	1.45	1.45	2.95	2.80	1.45	1.45
Highway Transportation Incident	2.90	3.90	3.10	2.45	1.00	2.20	2.00	2.45	2.00	2.15	3.40	2.80	2.80	3.40	1.95	2.65	2.80
Human Disease Incident	2.05	2.05	1.00	1.90	1.00	1.75	1.10	1.20	1.30	1.65	2.50	1.60	1.60	2.50	2.65	1.60	1.60
Human Disease Pandemic	2.20	2.80	1.00	1.90	1.00	1.60	1.20	1.20	1.30	1.75	1.95	1.60	1.60	1.95	2.65	2.20	1.60
Landslide	1.45	1.45	1.00	1.60	1.00	1.45	1.00	1.55	1.20	1.00	2.50	1.45	1.45	2.50	1.75	1.00	1.55
Levee Failure	2.20	1.45	1.00	1.20	1.00	1.75	1.00	1.75	1.00	1.00	3.10	1.00	1.00	3.10	2.20	1.00	1.50
Pipeline Transportation Incident	1.55	3.55	1.00	1.85	1.45	1.95	2.05	2.05	1.45	2.55	3.10	1.30	1.30	3.10	1.95	1.45	1.55
Public Disorder	1.45	1.45	3.10	1.30	1.00	1.45	1.00	1.55	1.55	1.45	2.20	1.30	1.30	2.20	1.45	1.45	1.30
Radiological Terrorism	2.65	1.45	1.00	2.25	1.00	1.75	1.00	1.65	1.00	1.45	2.65	2.35	2.35	2.65	2.65	2.65	2.35

III – Risk Assessment

	City of Bettendorf	City of Blue Grass	City of Buffalo	City of Davenport	City of Dixon	City of Donahue	City of Eldridge	City of LeClaire	City of Long Grove	City of Maysville	City of McCausland	City of New Liberty	City of Panorama Park	City of Princeton	City of Riverdale	City of Walcott	Scott County
Railway Transportation Incident	2.65	1.45	3.10	2.40	1.00	2.40	1.55	1.65	1.00	1.00	2.80	1.55	1.55	2.80	2.40	2.10	1.55
River Flood	2.50	1.30	2.85	2.80	1.00	2.40	1.00	1.65	1.00	1.00	3.55	2.50	2.50	3.55	3.55	1.00	2.50
Severe Winter Storm	2.55	2.85	2.80	2.55	1.00	2.70	2.55	2.55	2.70	1.95	2.55	2.50	2.50	2.55	3.15	1.75	2.50
Sinkholes and Land Subsidence	1.30	1.65	3.90	1.65	1.00	1.95	1.00	1.75	1.00	1.00	2.50	1.75	1.75	2.50	1.75	1.65	1.75
Structural Failure	2.05	1.45	1.00	2.05	1.00	1.75	1.50	1.65	1.90	1.65	2.45	1.95	1.95	2.45	2.05	1.65	1.95
Structural Fire	3.20	2.40	2.65	2.15	1.45	2.35	2.90	3.10	1.45	1.45	3.70	2.65	2.65	3.70	3.30	2.00	2.65
Thunderstorm and Lightning	2.95	2.85	2.80	2.65	1.00	3.20	2.80	2.35	2.40	2.20	3.05	2.90	2.90	3.05	2.65	2.80	2.90
Tornado	1.95	2.95	2.80	2.50	1.15	2.40	2.85	2.20	1.15	1.45	4.00	2.05	2.05	4.00	3.10	2.05	2.05
Transportation of Hazardous Materials Incident	2.80	2.85	2.80	2.75	1.00	1.55	2.00	1.55	1.45	1.55	3.25	1.55	1.55	3.25	2.40	1.95	1.55
Transportation of Radiological Materials Incident	1.95	3.25	1.00	1.85	1.00	1.65	2.50	1.65	1.00	1.65	2.65	1.95	1.95	2.65	2.35	2.25	1.95
Waterway Incident	2.80	1.45	2.80	1.85	1.00	1.55	1.00	1.65	1.80	1.00	3.40	1.55	1.55	3.40	2.40	1.00	1.55
Windstorm	2.70	2.95	2.80	2.65	1.45	2.75	3.20	2.75	1.45	1.70	2.95	2.25	2.25	2.95	3.05	1.90	2.25

Table III-6 Hazard Scores Weighted by Population

	Trazara Scores Weighten by Topulation																	
	City of Bettendorf	City of Blue Grass	City of Buffalo	City of Davenport	City of Dixon	City of Donahue	City of Eldridge	City of LeClaire	City of Long Grove	City of Maysville	City of McCausland	City of New Liberty	City of Panorama Park	City of Princeton	City of Riverdale	City of Walcott	Scott County	Total
Agro-Terrorism	0.4071	0.0089	0.0081	1.1854	0.0015	0.0034	0.0741	0.0305	0.0060	0.0030	0.0026	0.0013	0.0012	0.0153	0.0047	0.0204	0.1373	1.9108
Air Transportation Incident	0.3078	0.0324	0.0081	1.9420	0.0015	0.0036	0.0645	0.0379	0.0088	0.0028	0.0020	0.0015	0.0015	0.0119	0.0096	0.0164	0.1752	2.6275
Animal/Plant/Crop Disease	0.6455	0.0166	0.0081	0.7903	0.0015	0.0040	0.0806	0.0240	0.0095	0.0032	0.0026	0.0026	0.0008	0.0153	0.0047	0.0129	0.3077	1.9299
Biological Terrorism	0.5263	0.0117	0.0081	1.2462	0.0015	0.0040	0.0757	0.0324	0.0123	0.0030	0.0026	0.0019	0.0018	0.0153	0.0096	0.0263	0.2225	2.2012
Chemical Terrorism	0.4469	0.0287	0.0081	1.2462	0.0015	0.0038	0.1047	0.0305	0.0123	0.0028	0.0026	0.0018	0.0018	0.0153	0.0096	0.0263	0.2130	2.1559
Communications Failure	0.3674	0.0267	0.0081	1.0030	0.0015	0.0038	0.0628	0.0379	0.0130	0.0032	0.0023	0.0016	0.0015	0.0136	0.0081	0.0194	0.1846	1.7585
Conventional Terrorism	0.3873	0.0117	0.0081	0.6079	0.0015	0.0040	0.0774	0.0490	0.0076	0.0027	0.0026	0.0015	0.0015	0.0153	0.0096	0.0194	0.1752	1.3823
Cyber Terrorism	0.5362	0.0255	0.0081	1.4590	0.0015	0.0038	0.0500	0.0444	0.0093	0.0032	0.0023	0.0015	0.0015	0.0136	0.0087	0.0209	0.1752	2.3647
Dam Failure	0.2483	0.0117	0.0081	0.7903	0.0015	0.0040	0.0322	0.0296	0.0081	0.0018	0.0019	0.0008	0.0008	0.0110	0.0074	0.0099	0.2083	1.3757
Drought	0.4965	0.0202	0.0142	0.7903	0.0015	0.0049	0.0806	0.0240	0.0095	0.0032	0.0028	0.0011	0.0010	0.0188	0.0096	0.0144	0.1231	1.6157
Earthquake	0.2880	0.0125	0.0081	1.3374	0.0015	0.0028	0.0757	0.0268	0.0095	0.0027	0.0015	0.0012	0.0011	0.0090	0.0052	0.0144	0.1373	1.9347
Enemy Attack	0.5263	0.0117	0.0081	1.7021	0.0015	0.0046	0.0709	0.0259	0.0056	0.0022	0.0026	0.0018	0.0017	0.0153	0.0092	0.0144	0.2083	2.6122
Energy Failure	0.5760	0.0202	0.0228	1.1854	0.0015	0.0053	0.1031	0.0444	0.0132	0.0030	0.0026	0.0015	0.0015	0.0150	0.0081	0.0253	0.1846	2.2135
Expansive Soils	0.1986	0.0117	0.0081	0.7295	0.0015	0.0028	0.0467	0.0240	0.0062	0.0027	0.0020	0.0008	0.0008	0.0119	0.0058	0.0099	0.0947	1.1577
Extreme Heat	0.4171	0.0158	0.0228	1.1854	0.0015	0.0043	0.0822	0.0361	0.0090	0.0030	0.0031	0.0021	0.0020	0.0182	0.0081	0.0164	0.2414	2.0685
Fixed Hazardous Materials Incident	0.5760	0.0158	0.0106	1.7325	0.0015	0.0038	0.0677	0.0305	0.0076	0.0030	0.0023	0.0013	0.0012	0.0136	0.0074	0.0214	0.1988	2.6950
Fixed Radiological Incident	0.3674	0.0121	0.0081	1.1854	0.0015	0.0035	0.0322	0.0361	0.0088	0.0027	0.0023	0.0018	0.0017	0.0136	0.0096	0.0099	0.2083	1.9050

III – Risk Assessment

	City of Bettendorf	City of Blue Grass	City of Buffalo	City of Davenport	City of Dixon	City of Donahue	City of Eldridge	City of LeClaire	City of Long Grove	City of Maysville	City of McCausland	City of New Liberty	City of Panorama Park	City of Princeton	City of Riverdale	City of Walcott	Scott County	Fotal
Flash Flood	0.6256	0.0158	0.0228	1.6717	0.0015	0.0047	0.0516	0.0351	0.0065	0.0018	0.0033	0.0008	0.0017	0.0197	0.0098	0.0139	0.2036	2.6899
Grass or Wildland Fire	0.5263	0.0223	0.0191	0.9422	0.0015	0.0061	0.0612	0.0370	0.0088	0.0038	0.0032	0.0012	0.0011	0.0191	0.1010	0.0144	0.2320	2.0003
Hailstorm	0.6058	0.0275	0.0228	1.3374	0.0015	0.0043	0.0902	0.0351	0.0102	0.0027	0.0029	0.0012	0.0011	0.0171	0.0101	0.0144	0.1373	2.3216
Highway Transportation Incident	0.5760	0.0316	0.0252	1.4893	0.0015	0.0043	0.0645	0.0453	0.0093	0.0039	0.0033	0.0023	0.0022	0.0197	0.0070	0.0263	0.2651	2.5768
Human Disease Incident	0.4071	0.0166	0.0081	1.1550	0.0015	0.0034	0.0355	0.0222	0.0060	0.0030	0.0025	0.0013	0.0013	0.0145	0.0096	0.0159	0.1515	1.8550
Landslide	0.4369	0.0027	0.0081	1.1550	0.0015	0.0031	0.0387	0.0222	0.0060	0.0032	0.0019	0.0013	0.0013	0.0113	0.0096	0.0218	0.1515	1.8761
Levee Failure	0.2880	0.0117	0.0081	0.9726	0.0015	0.0028	0.0322	0.0287	0.0056	0.0018	0.0025	0.0012	0.0011	0.0145	0.0063	0.0099	0.1468	1.5353
Pandemic Human Disease	0.4369	0.0117	0.0081	0.7395	0.0015	0.0034	0.0322	0.0324	0.0046	0.0018	0.0031	0.0008	0.0008	0.0179	0.0079	0.0099	0.1420	1.4545
Pipeline Transportation Incident	0.3078	0.0287	0.0081	1.1246	0.0022	0.0038	0.0661	0.0379	0.0067	0.0047	0.0031	0.0011	0.0010	0.0018	0.0070	0.0144	0.1468	1.7658
Public Disorder	0.2880	0.0117	0.0252	0.7903	0.0015	0.0028	0.0322	0.0287	0.0072	0.0027	0.0022	0.0011	0.0010	0.0127	0.0052	0.0144	0.1231	1.3500
Radiological Terrorism	0.5263	0.0117	0.0081	1.3678	0.0015	0.0034	0.0322	0.0305	0.0046	0.0027	0.0026	0.0019	0.0018	0.0153	0.0096	0.0263	0.2225	2.2688
Railway Transportation Incident	0.5263	0.0117	0.0252	1.4590	0.0015	0.0047	0.0500	0.0305	0.0046	0.0018	0.0028	0.0013	0.0012	0.0016	0.0087	0.0209	0.1468	2.2986
River Flooding	0.4965	0.0105	0.0232	1.7021	0.0015	0.0047	0.0322	0.0305	0.0046	0.0018	0.0035	0.0020	0.0020	0.0205	0.0128	0.0099	0.2367	2.5950
Severe Winter Storm	0.5065	0.0232	0.0228	1.5501	0.0015	0.0053	0.0822	0.0471	0.0125	0.0036	0.0025	0.0020	0.0020	0.0148	0.0114	0.0174	0.2367	2.5416
Sinkholes	0.2582	0.0134	0.0318	1.0030	0.0015	0.0038	0.0322	0.0324	0.0046	0.0018	0.0025	0.0014	0.0014	0.0145	0.0063	0.0164	0.1657	1.5909
Structural Failure	0.4071	0.0117	0.0081	1.2462	0.0015	0.0034	0.0483	0.0305	0.0080	0.0030	0.0024	0.0016	0.0015	0.0142	0.0074	0.0164	0.1846	1.9959
Structural Fire	0.6355	0.0194	0.0216	1.3070	0.0022	0.0046	0.0935	0.0573	0.0067	0.0027	0.0036	0.0021	0.0021	0.0214	0.0119	0.0199	0.2509	2.4624

	City of Bettendorf	City of Blue Grass	City of Buffalo	City of Davenport	City of Dixon	City of Donahue	City of Eldridge	City of LeClaire	City of Long Grove	City of Maysville	City of McCausland	City of New Liberty	City of Panorama Park	City of Princeton	City of Riverdale	City of Walcott	Scott County	Total
Thunderstorm and Lightning	0.5859	0.0231	0.0228	1.6109	0.0015	0.0063	0.0902	0.0434	0.0111	0.0040	0.0030	0.0023	0.0023	0.0176	0.0096	0.0278	0.2746	2.7364
Tornado	0.3873	0.0239	0.0228	1.5197	0.0018	0.0047	0.0919	0.0407	0.0053	0.0027	0.0039	0.0017	0.0016	0.0231	0.0112	0.0204	0.1941	2.3568
Transportation of Hazardous Materials Incident	0.5561	0.0231	0.0228	1.6717	0.0015	0.0030	0.0645	0.0287	0.0067	0.0028	0.0032	0.0013	0.0012	0.0188	0.0087	0.0194	0.1468	2.5803
Transportation of Radiological Materials Incident	0.3873	0.2630	0.0081	1.1246	0.0015	0.0032	0.0806	0.0305	0.0046	0.0030	0.0026	0.0016	0.0015	0.0153	0.0085	0.0223	0.1846	2.1428
Waterway Incident	0.5561	0.0177	0.0228	1.1246	0.0015	0.0030	0.0322	0.0305	0.0083	0.0018	0.0033	0.0013	0.0012	0.0197	0.0087	0.0099	0.1468	1.9894
Windstorm	0.5362	0.0239	0.0228	1.6109	0.0022	0.0054	0.1031	0.0508	0.0067	0.0031	0.0029	0.0018	0.0018	0.0171	0.0010	0.0189	0.2130	2.6216

### Prioritizing Hazards

The compiled Scott County-wide hazard scores as ranked by the methodology described above were ranked from highest to lowest and divided into fourths, reflecting an even distribution between each priority level. The results of the hazard scoring and initial numerical ranking were presented to the Planning Committee for review and discussion as shown in Table III-7.

Table III-7
Initial Hazard Prioritization for Compiled County-Wide Area

Priority 1	Priority 2	Priority 3	Priority 4
Thunderstorm & Lightning	Cyber Terrorism	Waterway Incident	Air Transportation Incident
Fixed Hazardous Materials Incident	Tornado	Earthquake	Communications Failure
Flash Flood	Hailstorm	Animal/Plant/Crop Disease	Drought
Windstorm	Railway Transportation Incident	Agro-Terrorism	Sinkholes and Land Subsidence
Enemy Attack	Radiological Terrorism	Grass or Wildland Fire	Landslide
River Flooding	Energy Failure	Transportation of Radiological Materials Incident	Levee Failure
Transportation of Hazardous Materials Incident	Biological Terrorism	Fixed Radiological Incident	Conventional Terrorism
Highway Transportation Incident	Chemical Terrorism	Human Disease Pandemic	Dam Failure
Severe Winter Storm	Extreme Heat	Human Disease Incident	Public Disorder
Structural Fire	Structural Failure	Pipeline Transportation Incident	Expansive Soils

The Planning Committee decided to regroup the hazards into three priority levels instead of four. General descriptions of priority groups were considered, and the following definitions were accepted. First Priority: Hazards having a higher likelihood of occurrence and unacceptable consequences. They are candidates for immediate focus in mitigation planning and for eliminating/minimizing risk factors. Second Priority: Hazards that should be addressed but have a lower priority or are longer term in focus with an emphasis on risk reduction. Third Priority: Hazards that have a less significant level of risk for which baseline level of protection is adequate or is considered to be largely beyond the scope of local mitigation efforts. Using these priority definitions and local knowledge of hazard occurrence and risk, the numerical rankings were adjusted to come up with the priority rankings shown in Table III-8.

Table III-8
Adjusted Hazard Priorities for Compiled County-Wide Area

Priority 1	Priority 2	Priority 3
Thunderstorm & Lightning	Cyber Terrorism	Fixed Radiological Incident
Fixed Hazardous Materials Incident	Enemy Attack	Human Disease Pandemic
Flash Flood	Railway Transportation Incident	Human Disease Incident
Windstorm	Radiological Terrorism	Pipeline Transportation Incident
River Flood	Biological Terrorism	Air Transportation Incident
Transportation of Hazardous Materials Incident	Chemical Terrorism	Communications Failure
Highway Transportation Incident	Extreme Heat	Drought
Severe Winter Storm	Structural Failure	Sinkholes and Land Subsidence
Structural Fire	Waterway Transportation Incident	Landslides
Tornado	Earthquake	Levee Failure
Hailstorm	Animal/Plant/Crop Disease	Conventional Terrorism
Energy Failure	Agro-Terrorism	Dam Failure
	Grass and Wildland Fire	Public Disorder
	Transportation of Radiological Materials	Expansive Soil

The compiled Scott County-wide scores are also reflected in each hazard profile. Federal regulations do not specify particular selection requirements for jurisdictions to prioritize hazards, so three methods were selected. When deciding priority levels for each jurisdiction, the jurisdictions chose between using the compiled Scott County-wide priorities, using their individual jurisdiction hazard score rankings, or altering their individual hazard score rankings to reflect the hazard priority level as seen as appropriate for their jurisdiction. These options were given due to the varying geography and populations of the participating jurisdictions.

# Hazard Profiles

# Agro Terrorism

**Definition:** An action causing intentional harm to an agricultural product or vandalism of an agricultural/animal related facility. Activities could include the following examples: animal rights activists who release milk or lab animals; a disgruntled employee who intentionally contaminates bulk milk tanks or poisons animals; eco-terrorists who destroy crops/facilities; theft of agricultural products, machinery, or chemicals; or criminals who vandalize agricultural facilities.

**Description:** Agro-terrorism covers a large variety of incidents from potential intentional introduction of disease; vandalism of facilities; theft of agricultural products, machinery, or chemicals; release of animals; and contamination of agricultural products.

**Maximum Extent:** Depending on the time of action taken, the implications will vary greatly.

Hazard Score Calculation								
Probability	Probability Magnitude/Severity Warning Time Duration Weighted Score							
0.46	0.56	0.59	0.30	1.91				

Evaluation Criteria	Description
Historical Occurrence	No known incidents of agro-terrorism have occurred within Scott County. However incidents have occurred in the State of Iowa. Since 1997, Iowa has experienced at least 10 incidents in which animal rights activists have vandalized or released animals from agricultural facilities.
Probability	There is a chance that an agro-terrorism related event could occur in Scott County since past incidents have occurred within the state, but an occurrence is unlikely in any given year.
Vulnerability	Agriculture is present in Scott County, therefore portions of the county where agriculture is prevalent are vulnerable to incident. Damages in dollar amounts could vary greatly from \$100 to several millions of dollars, depending on the act or terrorism.
Location	Agro-terrorism could occur in most parts of Scott County. However, an incident would be mainly confined to the agricultural facility affected.
Severity	<ul> <li>A. Health and safety of persons in affected areas: Depending on the type of incident, safety could be affected especially when chemicals are involved.</li> <li>B. Health and safety of response personnel: Depending on the type of incident, safety could be affected especially when chemicals are involved.</li> <li>C. Continuity of operations: Depends on the location and extent of incident.</li> <li>D. Property, facilities, and infrastructure: Damage and/or destruction likely in case of an event.</li> <li>E. Delivery of services: Depends on the location and extent of incident.</li> <li>F. Environment: Depends on location and extent of incident.</li> <li>G. Economic and financial conditions: Threats and scares have psychological effects and disrupt activities at a cost to productivity. In the case of an actual incident loss in equipment, animals, and/or products could have major financial effects.</li> <li>H. Regulatory and contractual obligations: Depends on the type of incident and damage. In case of product tampering fulfilling certain types of contracts could be affected.</li> <li>I. Reputation of the entity: No known impact.</li> </ul>
Speed of Onset	In most incidents, there would be no warning time. The exception would be if someone called in a threat.

Sources						
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007					
Extension Disaster Education Network (EDEN)	Pre-Disaster Mitigation Plan, February 2007					
United States Department of Agriculture	USDA Homeland Security Efforts					
(USDA)	http://www.usda.gov/documents/factsheet0504.pdf					

# **Air Transportation Incident**

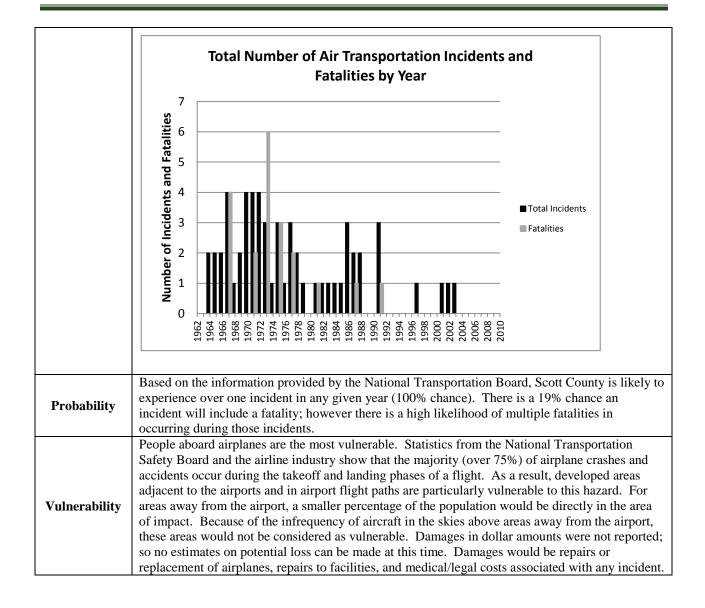
**Definition:** Any incident involving a military, commercial, or private aircraft.

**Description:** Air transportation is playing a more prominent role in transportation as a whole. Airplanes, helicopters, and other modes of air transportation are used to transport passengers for business and recreation as well as thousands of tons of cargo. A variety of circumstances can result in an air transportation incident. Mechanical failure, pilot error, enemy attack, terrorism, weather conditions, and on-board fire can all lead to an incident at or near the airport. Air transportation incidents can occur in remote unpopulated areas, residential areas, or downtown business districts. Incidents involving military, commercial, or private aircraft can also occur while the aircraft is on the ground.

**Maximum Extent:** More accidents occur during takeoffs and landings. Accordingly, the spatial extent of the majority of the incidents would occur on airport grounds or adjacent areas. Compared to many other hazards, an air transportation accident would occupy a relatively small area. The extent to which the impacts would be felt would depend on the materials involved. For example, if a cargo plane transporting volatile or hazardous substances were involved in an accident, the area of concern would be significantly larger than the area for an accident involving a small personal aircraft carrying stable materials. The largest share of accidents would likely affect only a few city blocks.

	Hazard Score Calculation								
Probability Magnitude/Severity Warning Time Duration Weighted Score									
0.48	0.71	0.32	0.27	1.78					

Evaluation Criteria	Description
Historical Occurrence	According to the National Transportation Board, there have been a total 58 air transportation incidents in Scott County from 1962 to 2010. Nine (9) incidents resulted in 20 fatalities as a result of air transportation incidents within Scott County. This does not include the death of a Marine Corps pilot who on June 29, 1992 during an air show, was involved in a failed take-off wherein the plane left the runway and entered an alfalfa field. The pilot stayed with the plane in order to minimize the damage to the aircraft and public property. Upon ejection the heat and flames of the crash disintegrated his parachute while he was still airborne and caused him to fall headfirst 25 to 30 feet to the ground. This was also the most recent air transportation related fatality in Scott County. There have also been 5 serious injuries and an additional 89 individuals who had minor or no injuries. The largest number of fatalities during an air transportation incident occurred on April 19, 1973 when a commercial flight heading to Chicago experienced a fatigue fracture mid-flight. All six people on board died. It was determined that there was a preexisting crack on one of the wings that had not been detected in previous inspections.



Air transportation incidents are more likely to occur near airport and heliports; however they can occur anywhere in the county. Map III-1 shows the locations of Scott County's airports, heliports and private landing strips. Davenport had 46 incidents from 1962 to 2010 with 7 of those incidents including 18 fatalities. This is largely due to the Davenport Municipal Airport located in northern Davenport. Below is the breakdown of where incidents occurred.

#### Location

Location	Number of Incidents	Fatalities	Serious Injuries	Minor or No Injuries
Bettendorf	1	0	0	2
Davenport	46	18	4	69
Dixon	2	1	0	2
Donahue	1	0	0	1
Durant	1	0	0	4
Eldridge	2	1	1	1
LeClaire	1	0	0	1
Maysville	3	0	0	8
New Liberty	1	0	0	1

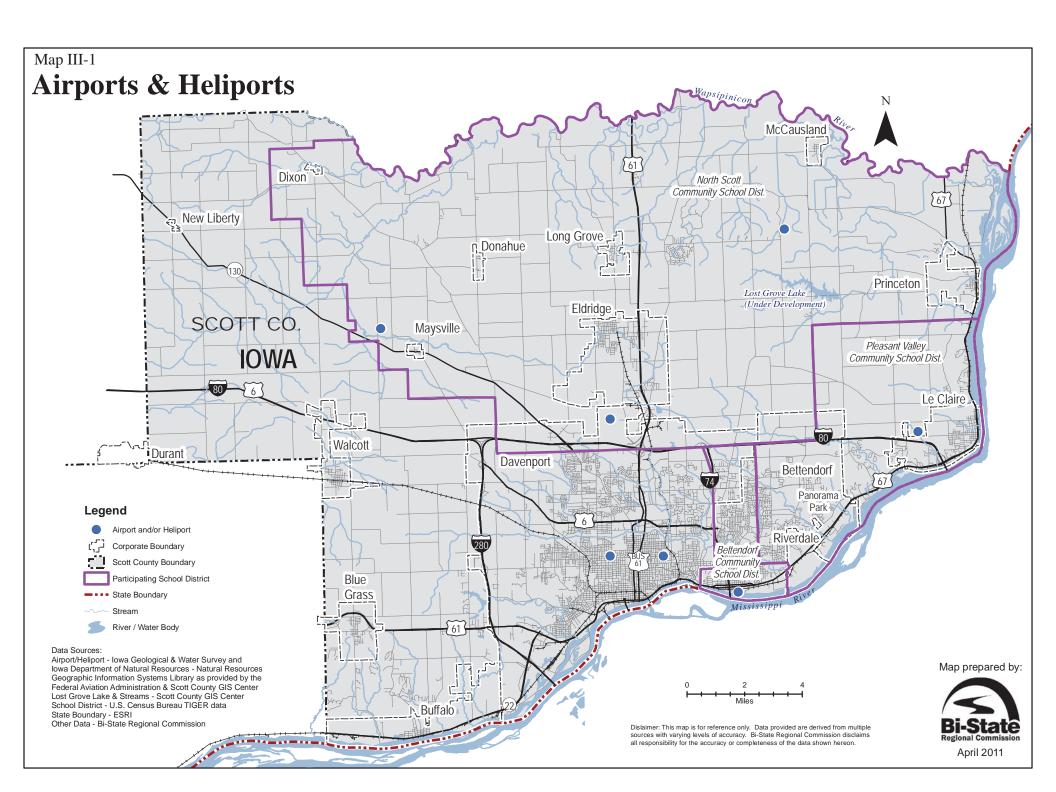
The level of severity would depend on the type of aircraft involved, the type of cargo being transported, and the area on the ground on which the accident occurred.

- A. *Health and safety of persons in affected areas:* The lives and health of the pilot, crew, and passengers, and the population on the ground would be at risk. There are very few injuries and fatalities when compared to the number of people involved in travel as a whole, but if there is an accident, it is very likely that the injuries would be serious or fatal.
- B. *Health and safety of response personnel:* Response personnel would likely be exposed to fire hazards and other hazards associated with crashes such as sharp objects, glass, and confined spaces.
- Severity C. Continuity of operations: No impact unless the crash affects a critical facility.
  - D. *Property, facilities, and infrastructure:* Significant damage can also occur to property on the ground. Often buildings, fences, utility lines, and trees are damaged or destroyed in the event of a plane crash. The cargo aboard the plane that has crashed can also sustain damage or destruction. This too can be extremely costly.
  - E. Delivery of services: No impact unless the crash affects a critical facility.
  - F. *Environment:* Hazardous materials may be on board or result from spilled fuel or fire. Damage would be mostly localized.
  - G. *Economic and financial conditions*: Damage to the aircraft itself is costly to the owner in terms of direct value lost and amount lost because the airplane is now out of commission.
  - H. Regulatory and contractual obligations: None known.
  - I. Reputation of the entity: Reputation is based on effective and timely response.

### Speed of Onset

The amount of warning time prior to an aircraft accident could vary from minutes to a matter of seconds. Crew aboard a troubled aircraft can radio to ground crew to prepare for the incident, but little can be done to lessen the direct effects of the impact. Rarely is there adequate time to do more than position onsite response personnel and alert mass casualty care providers of the possible event.

Sources					
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007				
City of Davenport	Pre-Disaster Mitigation Plan, February 2007				
National Transportation Safety Board	http://www/ntsb.gov				
Federal Aviation Administration	http://www.faa.gov				
Transportation Security Administration	http://www.tsa.gov/public				
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters.shtml				
USGS Geographic Names Information	http://georgineg.uggg.gov/domogtic/				
System	http://geonames.usgs.gov/domestic/				
Local Sources	Quad City Times				



## Animal/Crop/Plant Disease/Infestation

**Definition:** An outbreak of disease that can be transmitted from animal to animal or from plant to plant. The disease outbreak will likely have a significant economic implications or public health impact. The crop/plant pest infestation will likely have severe economic implications, cause significant crop losses, or cause significant environmental damage. The crop/plant pests may also have implications for public health.

**Description:** The introduction of some high consequence diseases may severely limit or eliminate our ability to move, slaughter, and export animals and animal products. The outbreak will have wide spread economic and societal implications for Iowa. Response and recovery to infectious animal disease outbreaks will be lengthy, and many producers may never be able to return to business.

**Maximum Extent:** There would be many indirect effects to the economy. Rumors of an infectious animal disease outbreak could have significant damage to the markets. Crop/plant pest infestations can cause widespread crop/plant loss and severe economic hardship on farmers and landowners and related businesses. Once infestation occurs, the pest may become endemic causing repeated losses in subsequent growing years. Loss of production will affect all related industries, such as fuel, food, synthetics, processors, etc.

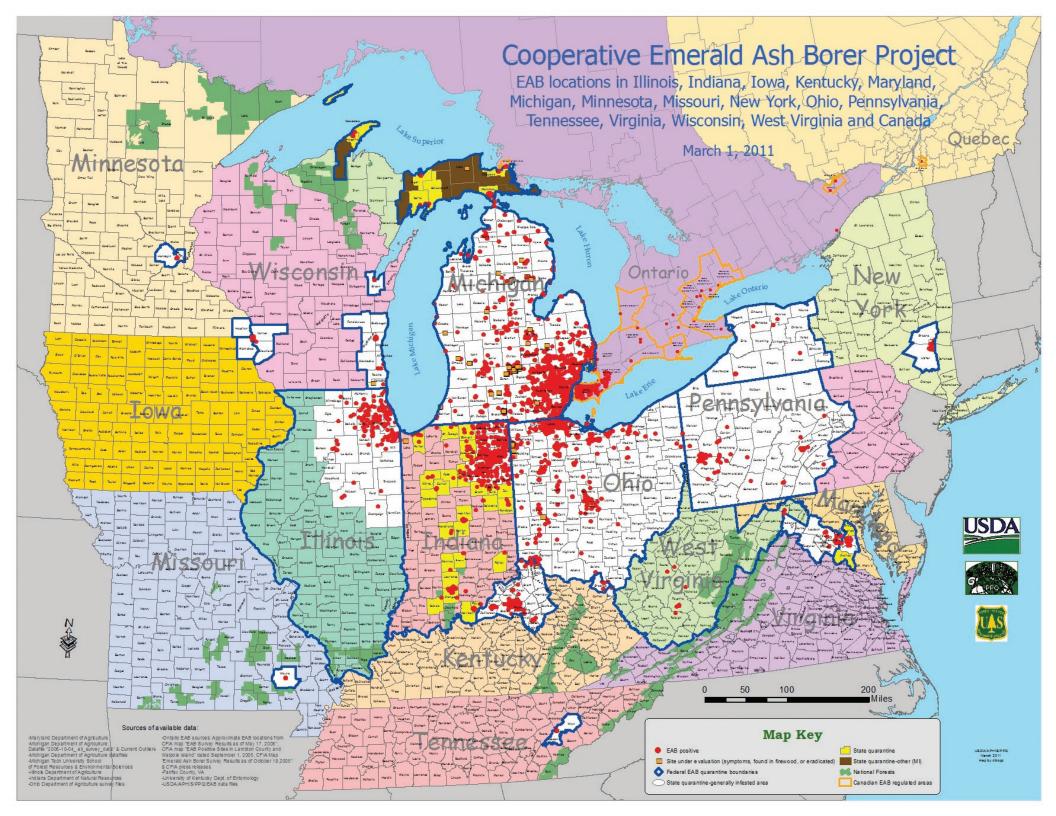
Hazard Score Calculation									
Probability Magnitude/Severity Warning Time Duration Weighted Score									
0.89	0.49	0.15	0.40	1.93					

Evaluation Criteria	Description
	Scott County has not been immune to plant or crop diseases. According to the State Plant Health Director (USDA Animal and Plant Health Inspection Service), the main concerns for plants in the county are infestations from the Gypsy Moth and Emerald Ash Borer. The Gypsy Moth (GM) is a tree pest that affects deciduous trees where the GM defoliates the trees causing the trees to die. The Emerald Ash Borer (EAB) is one of the biggest threats. The EAB only attacks ash trees, none of which are immune to attack in the United States. The larvae of the EAB feed under the bark of the tree causing 100% mortality. The EAB was recently found in Iowa in Allamakee County, Iowa (located in the northeast corner of the state). Luckily the EAB has not been found in Scott County to date. See map for current locations of EAB in the United States. No record of animal disease outbreaks have been recorded in Scott County at this time.
Historical Occurrence	<ul> <li>Plant Disease outbreaks in Scott County:</li> <li>In the spring of 1995 there was a nursery that had an infestation of gypsy moth due to receiving infested nursery stock (trees). Fifteen acres were treated with Bacillus thuringiensis (bio-pesticide) two times to eradicate the infestation.</li> <li>In January, 2004, there was a recall of many geraniums across the U.S. due to an infection of Ralstonia solanacearum race 3, biovar 2. The infected plants came from a source in Guatemala. The small plants from Guatemala were sent through distributors to greenhouses, where the plants were grown/finished for resale. In Iowa, there were 7,732 plants at 14 establishments that were inspected and sampled and destroyed. In Scott County, there was one establishment with 302 plants that were destroyed.</li> <li>In the spring of 2004, there was a nursery that had an infestation of gypsy moth due to receiving infested nursery stock (trees). Ten acres were treated with Bacillus thuringiensis (bio-pesticide) two times to eradicate the infestation.</li> </ul>

Evaluation Criteria	Description			
Probability	Disease and pests are present in many other areas of the country and world. Many diseases and pests are easily transmitted, therefore the probability of introduction is high. Iowa leads the nation in production of pork, soybeans, eggs, and corn and is among the leading beef production states. With the millions of animals and animal products that move across the state yearly, the probability is high.			
	The movement of people, animals, animal products, wildlife, plants, crops, and potential disease/pest vectors could all cause the introduction of diseases/pests. Diseases and pests could also be introduced naturally (i.e. by hurricanes or jet streams).  As of 2007, there were 861 farms in Scott County totaling 248,646 acres (or approximately 289 acres per farm). The main crops grown in the county are: corn for grain, soybeans for beans, forage (hay, haylage, grass silage, and greenchop), corn for silage, and sod harvested. The main livestock inventory for the county was listed as: 120,704 hogs/pigs and 19,183 cattle/calves.  Plant and Crop Diseases The main crops grown in Scott County are corn, soybeans, and hay (alfalfa). All of these crops are susceptible to diseases. The main animal productions in Scott County are hogs and cattle. The tables below show the common diseases that affect crops and animals. The State of Iowa 2010 Hazard Mitigation Plan stated that approximately \$441,728 in crop damages occur annually.			
		Crop & Plant Disease	s	
	Corn	Hay (Alfalfa)	Soybeans	
	Anthracnose Leaf Spot	Aphanomyces Root Rot	Bacterial Blight	
	Anthracnose Stalk Rot	Bacterial Wilt	Bacterial Pustule	
	Anthracnose Top Dieback	Crown Rots	Bean Pod Mottle	
	Aspergillus Ear Rot	Downy Mildew	Brown Stem Rot	
	Bacterial Stalk Rot	Fusarium Root Rot	Cercospora Leaf Blight	
	Carbonum Leaf Spot	Fusarium Wilt	Charcoal Rot	
Vulnerability	Charcoal Rot	Leptosphaerulina Leaf Spot	Downy Mildew	
	Cladosporium Ear Rot	Nematodes	Frogeye Leaf Spot	
	Common Rust	Phytophthora Root Rot	Fusarium Wilt	
	Common Smut	Pythium Root Rot	Phytophthora Root and Stem Rot	
	Crazy Top	Seed Rots	Pod and Stem Blight	
	Diplodia Ear Rot	Seedling Blights	Powdery Mildew	
	Diplodia Stalk Rot	Spring Black Stem	Pythium Root Rot	
	Eyespot	Verticillium Wilt	Rhizoctonia Root Rot	
	Fusarium Ear Rot	Wilt Diseases	Septoria Brown Spot	
	Fusarium Stalk Rot		Soybean Cyst Nematode	
	Gibberella Ear Rot		Soybean Mosaic	
	Gibberella Stalk Rot		Soybean Rust	
	Goss's Wilt		Stem Canker	
	Gray Leaf Spot		Sudden Death Syndrome	
	Head Smut		White Mold	
	Holcus Leaf Spot			
	Maize Dwarf Mosaic			
	Nematodes			
	Nigrospora Ear Rot			
	Northern Leaf Blight			
	Penicillium Ear Rot			
	Physoderma Brown Spot			
	Pythium Stalk Rot			

Evaluation	Decomintion					
Criteria	Description					
	Root Rots					
	Corn					
	Seed Decay and Seedling Blight					
	Southern Leaf Blight					
	Southern Rust					
	Stewart's Disease					
	Trichoderma Ear Rot					
	Animal	Diseases (Present in the Un	itad States)			
	Cattle	Swine	Multiple Species Diseases			
	Cattle	Porcine Reproductive and	Multiple Species Diseases			
	Bovine Anaplasmosis	Respiratory Syndrome	Anthrax			
	Bovine Genital					
	Campylobacteriosis	Transmissible Gastroenteritis	Aujeszky's Disease			
	Bovine Tuberculosis		Bluetongue			
	Bovine Viral Diarrhea		Brucellosis			
	Enzootic Bovine Leucosis Infectious Bovine		Echinococcosis/Hydatidosis			
	Rhinotracheitis/ Infectious					
	Pustular Vulvovaginitis		Leptospirosis			
	Trichomonosis		Paratuberculosis (Johne's Disease)			
			Q Fever			
			Rabies			
			Tularemia			
			West Nile Virus/Encephalitis			
Location	the county. See Map III-2 for loc	ld occur. Plant and animal di cations of Emerald Ash Borer	seases can occur anywhere within in the United States.			
	and whether or not they could	d spread to humans, there cou	g on the severity and type of diseases ald be a high risk for health concerns.			
	B. Health and safety of response personnel: Limited, if any.					
	C. <i>Continuity of operations:</i> Depending on type and scale of outbreak. A large animal or crop disease could have a major impact on the agricultural industry.					
Severity	D. <i>Property, facilities, and infrastructure:</i> None directly.					
ľ	E. <i>Delivery of services:</i> None directly, unless products were coming from quarantined a					
	F. Environment: Could be significant; in the case of the EAB migrating into the county.					
	G. Economic and financial conditions: Depending on the situation, could have significant losses.					
	H. Regulatory and contractual obligations: None directly.					
	I. Reputation of the entity: Dep					
	transmitting disease before they s		at are infected with the disease can be			
Speed of						
Onset	likely have spread across the county, state ,or the nation. This will put the county at a severe disadvantage during response and recovery. In the case of pest infestations, it can take years to					
	discover and quarantine the area	-	···· · · · · · · · · · · · · · · · · ·			

	Sources
State of Laws HISEMD	Iowa Hazard Mitigation Plan, 2007
State of Iowa, IHSEMD	State Plant Health Director (Mr. Robert Meinders)
Iowa State University Extension:	http://www.extension.iastate.edu
	Crown and Root Diseases of Alfalfa, 1996-
	http://www.extension.iastate.edu/Publications/PM326.pdf
	Crop Management News: "Spring is Time to Check Alfalfa for
	Foliar Diseases" –
	http://www.extension.iastate.edu/CropNews/2009/0506yang.h
	<u>tm</u>
	National Corn Handbook Corn Disease Management, 1993-
	http://www.extension.iastate.edu/Publications/NCH4.pdf
	Corn Field Guide, 2009 -
	http://www.extension.iastate.edu/Publications/CSI1.pdf
	Soybean Disease and Pest Management Field Guide, 2008-
	http://www.extension.iastate.edu/Publications/CSI10.pdf
	Integrated Crop Management – Distribution of Soybean Rust
	Map, 2007- http://www.ipm.iastate.edu/ipm/icm/node/2624
	Extension Field Agronomist, Region 7 (Mr. Virgil Schmitt)
U.S. Department of Agriculture National	2007 Census of Agriculture, Scott County Iowa Profile –
Agricultural Statistics Service	http://www.agcensus.usda.gov/Publications/2007/Online Hig
	hlights/County_Profiles/Iowa/cp19163.pdf
U.S Department of Agriculture Animal and Plant	2008 Untied States Animal Health Report -
Health Inspection Service	http://www.aphis.usda.gov/animal health/animal health rep
1	ort/downloads/AHR 08/2008 US Animal Health Report.pdf
U.S. Department of Agriculture Animal and Plant	Emerald Ash Borer Quarantine Map (September 16, 2010) -
Health Inspection Service	http://www.aphis.usda.gov/plant_health/plant_pest_info/emer
<b>r</b>	ald_ash_b/downloads/multistateeab.pdf



#### **Biological Terrorism**

**Definition:** Use of biological agents against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom.

**Description:** Liquid or solid contaminants can be dispersed using sprayers/aerosol generators, or by point or line sources such as munitions, covert deposits, and moving sprayers. Biological agents may pose viable threats from hours to years depending upon the agent and the conditions in which it exists. Depending on the agent used and the effectiveness with which it is deployed, contamination can be spread via wind and water. Infections can be spread via human or animal vectors.

**Maximum Extent:** Because of the characteristics of the weapons terrorists use, the area can be limited to a room, building, or the entire community. Depending on the agent used and the effectiveness with which it is deployed, contamination can spread via wind and water. Infections can be spread via human or animal vectors. Because of the variables described above, the geographic extent can become quite broad before the incident is recognized as a terrorist act.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.89	0.49	0.15	0.40	1.93

Evaluation Criteria	Description
Historical Occurrence	There have been no known acts of biological terrorism in Scott County.
Probability	Internationally, such acts have become quite commonplace, as various religious, ethnic, and nationalistic groups have attempted to alter and dictate political and social agendas, seek revenge for perceived past wrong doing, or intentionally disrupt the political, social, and economic infrastructure of individual businesses, units of government, or nations. Unfortunately, there will never be a way to totally eliminate all types of these clandestine activities. Persons inclined to cause death and destruction are usually capable of finding a way to carry out their plans. As perpetrators of terrorism improve their ability to collect information, raise money, and issue rhetoric, implementation of effective counter measures becomes even more important; however the probability of an occurrence in Scott County in any given year is unlikely.
Vulnerability	Innocent people are often victims of terrorist activity at certain organizations and activities. Based on the method of delivery, the general public is vulnerable to bioterrorism. State and local agencies developed the Biological Chemical Threat Agent (BCTA) Protocol Model to guide response agencies. The American public is not vaccinated for many of the agents used as weapons by terrorist groups. Iowa vaccinated volunteers against small pox at 15 hospitals in early 2003. The U.S. Postal Service installed Bio-Detection Systems (BDS) in 2005-2006 in several postal sorting facilities in Iowa to address early detection since many of the threats have used the postal system for delivery. No historic data is available to estimate potential losses at this time. Should an incident occur in the future, a estimate of potential loss will be done in the next plan update.
Location	A biological terrorist attack could happen anywhere within Scott County; however, Scott County would also be vulnerable to attacks within the Quad City Metropolitan Area. This highly populated area in both Illinois and Iowa could cause biological agents to spread more quickly.
Severity	<ul> <li>A. Health and safety of persons in affected areas: The intent of the terrorist is to cause fear based on illness, injury, and death. A bioterrorism incident would likely result in illness at a minimum, with multiple deaths and long-term health problems as a worst-case scenario.</li> <li>B. Health and safety of response personnel: Responders may not initially be aware that they</li> </ul>

Evaluation Criteria	Description
	are responding to a biological incident and may not have the personal protective equipment necessary to protect themselves against the released agent. This could result in injuries,
	illness, and death among responders at a high rate as well.
	C. Continuity of operations: Indirect effects would be felt, but chain of command could limit
	the impact. Limited direct impact in a biological incident.
	D. Property, facilities, and infrastructure:
	E. Delivery of services: Critical services could be affected such as health care. Capability of
	health care services to diagnose and treat a biological agent may severely be limited in rural
	areas. Most services would be affected by being overwhelmed.
	F. Environment: Biological agents could contaminate soil, air, and water resulting in loss of
	flora and fauna in the initial targeted area and eventually contaminated by transported
	biological agents.
	G. Economic and financial conditions: Effects would be far-reaching and severely damaging
	because of loss of production and long-term disruption of commodity flows.
	H. Regulatory and contractual obligations: None known.
	I. Reputation of the entity: Would be based on the adequacy of the response.
	Acts of terrorism can be immediate and often come after little to no warning. There are
	occasions when terrorists have warned the targeted organization beforehand, but often the attack
Speed of Onset	comes without previous threat. Terrorists threaten people and facilities through "bomb threats"
	and other scare tactics. Even if it is a shallow threat, precautions must be taken to ensure the
	safety of the people and property involved.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	
Department of Homeland Security	http://www.dhs.gov/dhspublic	
Iowa Homeland Security	http://www.iowahomelandsecurity.org	
U.S. Department of Justice	http://www.fbi.gov/terrorinfo/terrorism.htm	
Emergency Net News	http://www.emergency.com	
Center for Disease Control	http://www.bt.cdc.gov	
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters.shtml	
The Disaster Center	http://www.diastercenter.com	
Local Sources		

### **Chemical Terrorism**

**Definition:** Use or threat of chemical agents against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom.

**Description:** Liquid/aerosol contaminants can be dispersed using sprayers or other aerosol generators, liquids vaporizing from puddles/containers, or munitions. Chemical agents may pose viable threats for hours to weeks depending on the agent and the conditions in which it exists. Persons, vehicles, water, and wind can carry contamination out of the initial target area. Chemicals may be corrosive or otherwise damaging over time if not mitigated.

**Maximum Extent:** Persons, vehicles, water, and wind can carry contamination out of the initial target area. The micro-meteorological effects of buildings and terrain can alter travel and duration of agents. The type of chemical, the method of dispersal, and the conditions largely determines the extent at the time it is released.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.49	0.71	0.59	0.37	2.16

Evaluation Criteria	Description		
Historical Occurrence	No known acts of chemical terrorism have occurred in the State of Iowa, only threats and hoaxes. The chemical terrorism history has been limited. Available information has no known record of any such occurrences in Scott County.		
Probability	Unfortunately, there will never be a way to totally eliminate all types of these clandestine activities. Persons inclined to cause death and destruction are usually capable of finding a way to carry out their plans. As perpetrators of terrorism improve their ability to collect information, raise money, and issue rhetoric, implementation of effective counter measures becomes even more important. The State Hazard Mitigation Team (SHMT) analysis has evaluated the probability that chemical terrorism will occur in Iowa is between 1% and 10% chance in the next year or at least one chance in the next 100 years.		
Vulnerability	Chemical agents may pose viable threats for hours to weeks depending on the agent and the conditions in which it exists. Shielding in the form of sheltering in place can protect people and property from harmful effects. There are no vaccines available to reduce the vulnerability from chemical agents. Due to local of historical occurrences, no potential losses can be estimated.		
Location	Incidents of a terrorist attack can take place anywhere in the county; there is no way of telling where an incident could take place.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: Could be severe. The intent of the terrorist is to cause fear based on illness, injury, and death.</li> <li>B. Health and safety of response personnel: Could be severe. The intent of the terrorist is to cause fear based on illness, injury, and death.</li> <li>C. Continuity of operations: Depends on location of incident.</li> <li>D. Property, facilities, and infrastructure: Chemicals may be corrosive or otherwise damaging over time if not remediated.</li> <li>E. Delivery of services: Depends on location of event.</li> <li>F. Environment: Air temperature can affect evaporation of aerosols and ground temperatures affect evaporation of liquids. Humidity can enlarge aerosol particles, reducing the inhalation hazard. Precipitation can dilute and disperse agents, but can spread contamination.</li> <li>G. Economic and financial conditions: Adverse effects intended in terrorism, but unknown at this time.</li> </ul>		

Evaluation Criteria	Description
	H. Regulatory and contractual obligations: No known impact.
	I. Reputation of the entity: Based on response.
	Acts of terrorism can be immediate and often come after little or no warning. There are
Speed of Onset	occasions where terrorists have warned the targeted organization beforehand, but often the
	attack comes without previous threat. Even if it is a false threat, precautions must be taken to
	ensure the safety of the people and property involved.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
City of Davenport	Davenport Pre-Disaster Mitigation Plan, 2007	

## **Communications Failure**

**Definition:** The widespread breakdown or disruption of normal communication capabilities. This could include major telephone outages, loss of local government radio facilities, or long-term interruption of electronic broadcast services.

**Description:** Emergency 9-1-1, law enforcement, fire, emergency medical services, public works, and emergency warning systems are just a few of the vital services that rely on communication systems to effectively protect citizens. Business and industry rely heavily on various communication media as well. Mechanical failure, traffic accidents, power failure, line severance, and weather can affect communication systems and disrupt service. Disruptions and failures can range from localized and temporary to widespread and long-term. If switching stations are affected, outages could be more widespread.

**Maximum Extent:** Most communications failures would be limited to localized areas. In the event of a widespread communications failure, larger portions of the county would be affected, but this is highly unlikely due to the support of neighboring jurisdictions and secondary communication devices.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.48	0.41	0.59	0.28	1.76

Evaluation Criteria	Description	
Historical Occurrence	No widespread communications failures have occurred in Iowa, according to the State of Iowa Hazard Mitigation Plan, 2007. Local incidents due to weather conditions, equipment failure, excavation incidents, and traffic accidents have been reported, but outages have usually been resolved in a timely manner. There have also been isolated incidents of loss of partial communications functions due to system upgrades. None of the incidents have ever been completely without communications; there is always a backup available in the county.	
Probability	Widespread communications losses are unlikely due to backup systems and redundant system designs. Local communications failures are likely to only affect areas for a short period of time and be contained to smaller areas.	
Vulnerability	Citizens of the county would be mainly affected indirectly. However, phone and data transmission could impact citizens more directly. Most communication systems that are highly necessary have backup and redundant designs to provide continuity of service. Potential damages caused by communication failure would be negligible.	
Location	All areas of the county can be affected; communication systems run throughout the entire county and are all susceptible to failure from time to time.	
Severity	<ul> <li>A. Health and safety of persons in affected areas: A communications failure would not directly result in injuries or fatalities. If 9-1-1 systems were to fail due to phone communication disruption, secondary effects could occur by the inability of citizens to alert responders of their needs for assistance.</li> <li>B. Health and safety of response personnel: None directly.</li> <li>C. Continuity of operations: Inter-agency and intra-agency communications would be limited. Data transmission could also be affected.</li> <li>D. Property, facilities, and infrastructure: Financial losses would be incurred due to the direct damage to electronic equipment and the communications infrastructure.</li> <li>E. Delivery of services: If 9-1-1 systems were to fail due to phone communications disruptions, secondary effects could occur by the inability of citizens to alert responders of their needs. The event of a full system overload is reduced by having more than one</li> </ul>	

Evaluation Criteria	Description	
	<ul> <li>service provider.</li> <li>F. Environment: None directly. Failed communications could result in malfunctioning systems and potential does exist for facilities to discharge hazardous materials into the environment.</li> <li>G. Economic and financial conditions: Most economic effects would be felt on those sectors dependent upon the communication system. This could result in multi-sector far reaching effects due to business disruption.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Widespread communication failures could moderately harm the reputation of affected jurisdictions. If 9-1-1 systems are affected, the reputation damage could be more serious.</li> </ul>	
Speed of Onset	A communications failure would likely occur with little or no warning. It is usually impossible to predict a communications failure. Some communications may be shut down for a short while for improvements or maintenance. These disruptions are usually made during periods of low demand and those who rely on them are given previous notice that the system will be out of service.	

Sources	
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007
Local Sources	Scott County EMA; Police Departments

# **Conventional Terrorism**

**Definition:** Use of conventional weapons and explosives against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom.

**Description:** Detonation of explosive device on or near target; delivery via person, vehicle, or projectile. Hazard effects are instantaneous. Additional secondary devices may be used, lengthening the duration of the hazard until the attack site is determined clear. The extent of damage is determined by the type and quantity of explosive. Effects are generally static other than cascading consequences, incremental structural failures, etc. Conventional terrorism can also include tactical assault or sniping from remote locations.

**Maximum Extent:** Extent of damage is determined by type and quantity of explosive. Effects are generally static other than cascading consequences, incremental structural failure, etc.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.46	0.43	0.32	0.17	1.38

Evaluation Criteria	Description
Historical Occurrence	There has only been one incident of conventional terrorism in Scott County. In 2002, as part of a nationwide mailbox bombing plot, Scott County was target of one attack in rural Northwest Davenport. Luckily the device did not detonate and no one was injured, unlike nearby counties where postal workers were injured in the explosions.  May 3, 2002 – One incident in part of a nationwide string of mailbox bombings (Davenport).
Probability	Unfortunately, there will never be a way to totally eliminate all types of these clandestine activities. Persons inclined to cause death and destruction are usually capable of finding a way to carry out their plans. As perpetrators of terrorism improve their ability to collect information, raise money, and issue rhetoric, implementation of effective counter measures becomes even more important. Acts of Conventional Terrorism are unlikely to occur in Scott County in any given year.
Vulnerability  Energy decreases logarithmically as a function of distance from the seat of the blast. Terrai forestation, structures, etc. can provide shielding by absorbing or deflecting energy and debte exacerbating conditions include ease of access to the target, lack of barriers/shielding, poor construction, and ease of concealment of the device. Damages were not reported with the 2 mailbox bombing so no estimate of potential loss is available at this time. Damages could range from negligible to catastrophic depending on individual incidents.	
Location	Incidents of a terrorist attack can take place anywhere in the county. There is no way of telling where an incident could take place.

Severity	<ul> <li>A. Health and safety of persons in affected areas: Property damage and injuries are almost certain outcomes if a conventional bomb is detonated in a developed or populated area.</li> <li>B. Health and safety of response personnel: Could be severe.</li> <li>C. Continuity of operations: Depends on location of incident.</li> <li>D. Property, facilities, and infrastructure: Damage and/or destruction likely intent of terrorist event.</li> <li>E. Delivery of services: Depends on location of incident.</li> <li>F. Environment: Depends on scope and location of incident.</li> <li>G. Economic and financial conditions: Threats and scares have psychological effects and disrupt activities at a cost to productivity.</li> <li>H. Regulatory and contractual obligations: No known impact.</li> <li>I. Reputation of the entity: No known impact.</li> </ul>
Speed of Onset	Explosions are usually instantaneous. Additional secondary devices may be used, lengthening the duration of the hazard until the attack site is determined to be clear.

Sources	
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007
Local Sources	Scott County Sheriff's Department

## **Cyber Terrorism**

**Definition:** Electronic attack using one computer system against another in order to intimidate people or disrupt other systems.

**Description:** Cyber terrorism may last from minutes to days depending upon the type of intrusion, disruption, or infection. Generally there are no direct effects on the built environment, but secondary effects may be felt depending upon the system being terrorized. Inadequate security can facilitate access to critical computer systems, allowing them to be used to conduct attacks.

**Maximum Extent:** Our society is highly networked and interconnected. An attack could be launched from anywhere in the world and could cause effects as small as a computer lab to as large as the World Wide Web.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weight Score
0.84	0.64	0.59	0.29	2.36

Evaluation Criteria	Description		
Historical Occurrence	Cyber-security and critical infrastructure protection are among the most important national security issues facing our country today, and they will only become more challenging in the years to come. Recent attacks on our infrastructure components have taught us that security has been a relatively low priority in the development of computer software and Internet systems. These attacks not only have disrupted electronic commerce, but also have had a debilitating effect on public confidence in the Internet and/or the business that was affected by the security breech.		
Probability	Security experts describe the threat as eminent and highly likely to occur in any give year in Scott County. The level of success or damage will vary greatly. Intrusion detection systems log thousands of attempts in a single month. There are constant probes by individuals and groups with intent to cause anything from total system shutdown to simply "seeing if they can do it."		
Vulnerability	Security professionals argue that current approaches to preventing cyber terrorism are inadequate. With companies increasingly using the Internet to connect to suppliers and customers, they say organizations place too much faith in technology to protect their data and do not pay enough attention to security education and awareness. Inadequate security can facilitate access to critical computer systems, allowing them to be used to conduct attacks. No accurate method of estimating potential losses related to cyber terrorism is available at this time for Scott County; however this will be reviewed for the next plain update.		
Location	A cyber attack could occur anywhere within Scott County including personal computers, businesses, industries, and government systems.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: No direct loss of life. Indirect injuries or deaths may result from secondary effects to critical life sustaining sectors such as energy, water, etc.</li> <li>B. Health and safety of response personnel: None directly.</li> <li>C. Continuity of operations: Severe effects to continuity of operations could result if cyber attack reached critical operational systems or systems that were needed to carry out the operation.</li> <li>D. Property, facilities, and infrastructure: Effects can range from annoyance to complete shutdown of critical infrastructures due to infiltration of supervisory control and data acquisition (SCADA) systems. Secondary effects could affect welfare of people and property by denying services or providing false readings.</li> <li>E. Delivery of services: Only effects would result if system was infiltrated and directed to</li> </ul>		

Evaluation Criteria	Description		
	malfunction by self destructing, overloading, etc.  F. Environment: Generally there are no direct effects on the built environment.  G. Economic and financial conditions: Because of the heavy reliance on the electronic transfer of economic and commercial information, the economy could be effected because of		
	communication difficulties.  H. Regulatory and contractual obligations: No significant effects other than the possible elimination of electronic records or regulatory and contractual obligations.  I. Reputation of the entity: If exposed vulnerabilities were known and not reduced or eliminated before the attack, the entity would suffer major damage to their reputation for not taking action before the incident.		
Speed of Onset	Because of the networks (formal and informal) that exist to share intrusion attempts and effects, warnings can be put out in advance to alert those in similar situations to take protective security recommendations such as updating virus detection software, making sure security patches are in place, etc. Warning times can range from no warnings to days. Because of our highly evolved computer networks and data sharing, bugs, viruses, and worms can proliferate rapidly. Effects of hacking can be instantaneous.		

Sources	
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007
City of Davenport	Pre-Disaster Mitigation Plan, February 2007
Cyber Terrorism	http://csciwww.etsu.edu/gotterbarn/stdntppr/

#### Dam Failure

**Definition:** A break in, or imposed threat from, any water retention fixture that may endanger population downstream of the containment area.

**Description:** Dams are constructed for a variety of uses, including flood control, erosion control, water supply impoundment, hydroelectric power generation, and recreation. Flooding, operating error, poor construction, lack of maintenance, damage due to burrowing animals, vandalism, terrorism, and earthquakes can cause dam failure. Dams are classified into three categories based on the potential risk to people and property should a failure occur:

*High Hazard* – A structure shall be classified as high hazard if located in an area where failure may create a serious threat of loss of human life or result in serious damage to residential, industrial or commercial areas, important public utilities, public buildings, or major transportation facilities.

Moderate Hazard – A structure shall be classified as significant hazard if located in an area where failure may damage isolated homes or cabins, industrial or commercial buildings, moderately traveled roads or railroads, interrupt major utility services, but without substantial risk of loss of human life. In addition, structures where the dam and its impoundment are themselves of public importance, such as dams associated with public water supply systems, industrial water supply, or public recreation, or which an integral feature of a private development complex shall be considered significant hazard for design and regulator purposes unless a higher hazard class is warranted.

Low Hazard – A structure shall be classified as low hazard if located in an area where damages from a failure would be limited to loss of the dam, loss of livestock, damages to farm outbuildings, agricultural lands, and lesser used roads, and where loss of human life is considered unlikely.

The classification may change over time because of development downstream from the dam since its construction. Older dams may not have been built to the standards of its new classification. Dam hazard potential classifications have nothing to do with the material condition of a dam, only the potential for death or destruction due to the size of the dam, the size of the impoundment, and the characteristics of the area downstream of the dam. The Iowa Department of Natural Resources tracks all dams in the State of Iowa with a height of at least 25 feet or a total storage of at least 50 acre feet of water. The inventory excludes all dams less than 6 feet high regardless of storage capacity and dams less than 15 acre feet of storage regardless of height.

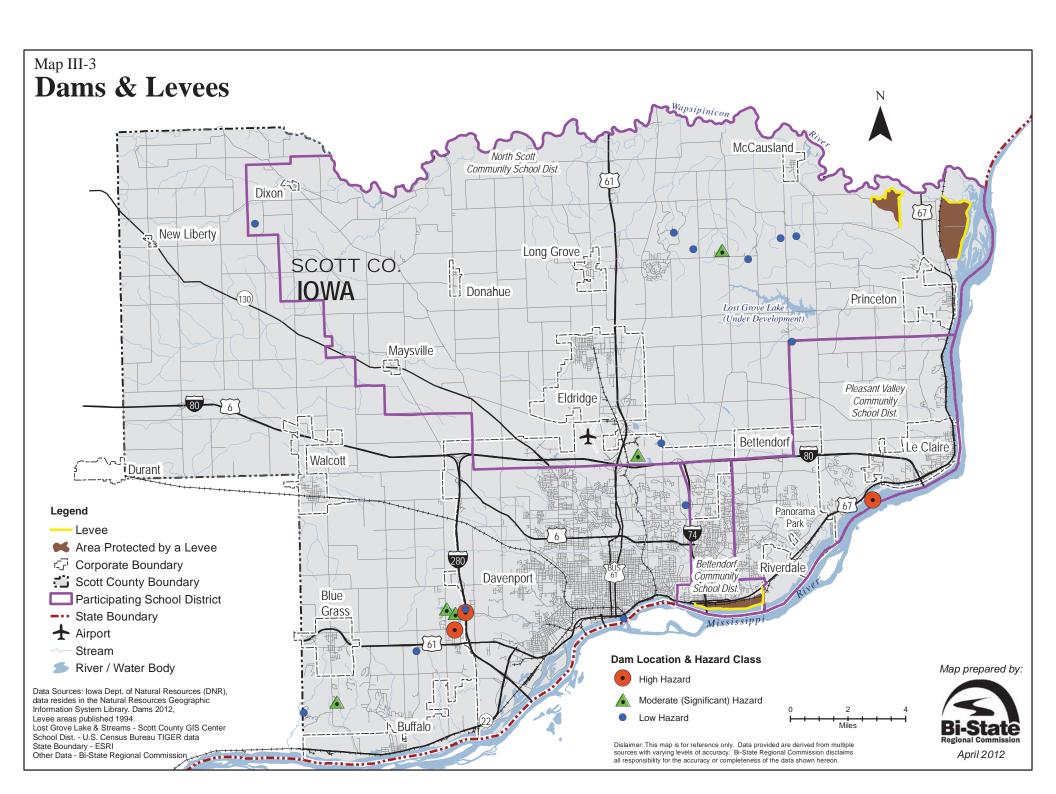
**Maximum Extent:** The extent of hazardous conditions due to dam failure is limited to those areas in and near the flood plain.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.45	0.37	0.40	0.16	1.38

Evaluation Criteria	Description		
Historical Occurrence	There have been two historical occurrences of dam failure in the State of Iowa; one occurred in 1968 in Waterloo when the Virden Creek Dam failed. The incidence claimed one life, and the dam is no longer in existence. The second occurrence happened at the Lake Delhi Dam in July of 2010 when a 92 year old dam was breached at a nine mile long lake that was owned by a local homeowner's recreation association. The breach caused significant property loss, an evacuation of as many as 700 near the dam, as well as severe economic impacts to the tourism industry in the area. No dam failures have occurred in Scott County.		
Probability  With increased attention to sound design, quality and construction, and continued maintena and inspection, dam failure probability can be reduced. It is important to consider that by 2 85% of the dams in the United States will be more than 50 years old (the design life of a da The State Hazard Mitigation Team (SHMT) analysis has evaluated the probability that a da failure will occur in Iowa as between 1% and 10% in the next year or at least one chance in next 100 years.			
Vulnerability	People and property along streams are most vulnerable. Facilities and lives at considerable distances from the actual impoundment are not immune from the hazard. Depending on the size and volume of the impoundment as well as the channel characteristics, the flash flood can travel a significant distance. In addition to the dams included in the IDNR inventory, there are additional farm ponds and small dam structures. These and other stormwater detention basins should be checked to see if their holding capacity exceeds the 100-year flood plain area if failure should occur. Data of which structures are likely to be affected by a dam failure is not currently available; however if such data becomes available, it will be included in the next update of this plan.		
Location	The area affected is mostly limited to people and property within the flood plain. People and property outside the floodplain could also be affected depending on the proximity to the dam and the height above the normal water level. Lost Grove Lake and Dam, located in northern Scott County near the City of McCausland is currently under construction. Lost Grove will be an approximate 350-acre recreational lake set to open summer 2012. There are three high hazard dams: Lake Canyada Dam on a tributary of Blackhawk Creek, Lake of the Hills on Blackhawk Creek and Lock & Dam 14 on the Mississippi River. There are five significant hazard dams in Scott County: Timber Lakes Estate Dam and Railroad Lake Dam on tributaries of Blackhawk Creek, Blue Grass Lake Dam on Blackhawk Creek, John Deere Davenport Works Dam on a tributary of Silver Creek, and Lake Hunnington on a tributary of Martins Creek (see Map III-3.) Vershaw Dam, which was originally classified as a high hazard dam, was reclassified to a low hazard dam in September of 2011. Inundation maps do not currently exist for the dams in Scott County so identifying potential losses and potentially affected areas is difficult at this time. The IA DNR has stated that it is one of their goals to have inundation areas and EAPs on file for all high hazard dams within the State. Scott County will monitor this development and include inundation areas in future plan updates as they become available.		
Severity	<ul> <li>inundation areas in future plan updates as they become available.</li> <li>A. Health and safety of persons in affected area: The severity of damage could range from property damage if a small subdivision impoundment failed, up to multiple deaths, injuries, and extensive property damage if a large, high hazard dam failed. Lake of the Hills Dam at Scott County West Lake Park is considered a high-hazard dam.</li> <li>B. Health and safety of response personnel: These effects are negligible to limited. See flash flooding effects for more information.</li> <li>C. Continuity of operations: The continuity of operations is negligible. There may be some effects associated with communications loss, critical facility damage/destruction, etc.</li> <li>D. Property, facilities, and infrastructure: There may be a wide range of effects depending on the downstream property, facilities, and infrastructure.</li> <li>E. Delivery of services: Delivery of services may be affected due to flash flooding. If the water being held by the dam was used for source water, a secondary source water may be needed until the water level can be restored.</li> <li>F. Environment: Much scouring would take place and erosion would be extensive. See flash flooding for more details.</li> </ul>		

Evaluation Criteria	Description		
	G. Economic and financial conditions: Economic effects would vary widely depending on the		
	damage done by released waters. See flash flooding for more details.		
	H. Regulatory and contractual obligations: See flash flooding.		
	I. Reputation of the entity: See flash flooding. Inspection records must be kept up to date to		
	demonstrate that preventative maintenance and other mitigating activities were being done.		
	A dam failure can be immediate and catastrophic leaving little or no time to warn those		
Speed of	downstream of the imminent hazard. With maintenance and monitoring, weak areas and possible		
Onset	failure points can be identified allowing time for evacuation and securing of the dam. Most dam		
	are only inspected periodically, thus allowing problems to go undetected until a failure occurs.		

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007 and 2010	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	
National Dam Safety Program	http://www.fema.gov/plan/prevent/damfailure/ndsp.shtm	
Iowa Department of Natural	http://www.state.ia.us/edp/wtresrce/wtrres.htm;IA DNR staff	
Resources	mtp://www.state.ia.us/eup/wtiesice/wtifes.htm;iA DNK staff	
National Inventory of Dams	http://geo.usace.army.mil/pgis/f?p=397:3:774105419566237::NO::P3 STATES:IA	



### Drought

**Definition:** A period of prolonged lack of precipitation for weeks at a time producing severe dry conditions.

**Description:** There are three types of drought conditions that are relevant to Iowa: meteorological drought, which refers to precipitation deficiency; hydrological drought, which refers to declining surface water and groundwater supplies; and agricultural drought, which refers to soil moisture deficiencies. Droughts can be spotty or widespread and last from weeks to a period of years. A prolonged drought can have a serious economic impact on a community. Increased demand for water and electricity may result in shortages of resources. Moreover, food shortages may occur if agricultural production is damaged or destroyed by a loss of crops or livestock. While droughts are generally associated with extreme heat, droughts can and do occur during cooler months.

**Maximum Extent:** One measure of the magnitude of drought conditions is provided by the Palmer Drought Severity Index (PDSI), which provides a scale of differences from the standard soil moisture conditions as follows:

Palmer Classifications		
INDEX	DEFINITION	
4.0 or more	Extremely wet	
3.0 to 3.99	Very wet	
2.0 to 2.99	Moderately wet	
1.0 to 1.99	Slightly wet	
0.5 to 0.99	Incipient wet spell	
0.49 to -0.49	Near normal	
-0.5 to 0.99	Mild drought	
-1.0 to -1.99	Mild drought	
-2.0 to -2.99	Moderate drought	
-3.0 to -3.99	Severe drought	
-4.0 or less	Extreme drought	

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.69	0.38	0.15	0.40	1.62

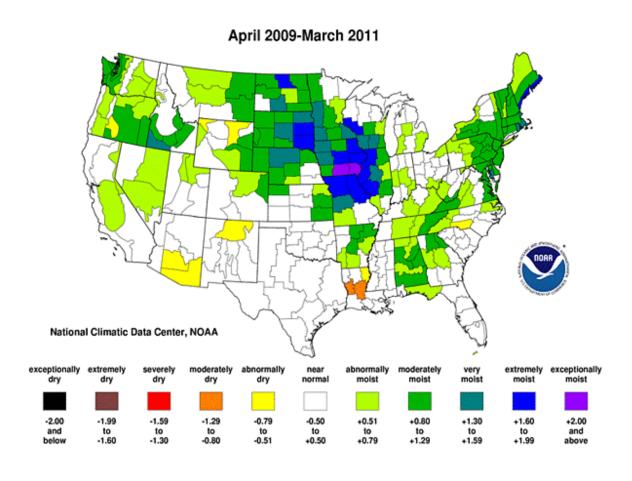
Evaluation Criteria	Description
Historical Occurrence	According to the National Climatic Data Center, there have been 11 drought reports for Scott County between 01/01/1950 and 05/31/2009. Noticeable droughts include: <b>August 1995:</b> A statewide drought, the dry weather conditions combined with well above normal temperatures produced the 4 <sup>th</sup> warmest August in Iowa's history. Yield losses were greatest over southern Iowa where plantings were delayed by excessive spring rainfall. The dry conditions resulted in deterioration of corn and soybean crops. <b>August 2003:</b> A moderate to severe drought developed in August 2003. According to the Iowa State Climatologist, August 2003 was the driest on record with a statewide average of only 0.96 inches of rainfall (3.23 inches below the normal). These weather conditions placed extreme stress

Evaluation Criteria	Description	
	on corn and soybeans, which are in their main development stage of growing in August. Yields were reduced by 10% for the corn and 30% for the soybeans.  July 2005 – March 2006: The drought of 2005-2006 began with below normal precipitation in June 2005, creating an official drought by July 2005. The drought conditions combined with high heat created unfavorable growing conditions for crops. By August 2005 Iowa's Governor declared most of eastern Iowa an Agricultural Disaster Area. November 2005 marked the 10 <sup>th</sup> consecutive month with below normal precipitation with the eastern ½ of Iowa was in the Extreme Drought category. By March 2006 the drought begun to shrink in size and scope and by April 2006 precipitation was near normal. Total precipitation for 2005 was 17.86 inches (normal is 38.04 inches).	
Probability	Drought is part of normal climate fluctuations. Climatic variability can bring dry conditions to the region for up to years at a time. According to the National Drought Mitigation Center, periods of severe to extreme drought in the Upper Mississippi Basin occur cyclically, about once every ten	
Vulnerability  Those dependent on rain would be the most vulnerable to a drought. This means that agribusiness, and consumers (if the drought lasted long enough or affected a large are affected. A drought limits the ability to produce goods and provide services. Because draw their drinking water from surface water and groundwater sources, a prolonged drought may affect all citizens if there were to be a dramatic drop in the stream flow the drop in the water table. Fire suppression can also become a problem due to the drop vegetation and possible lack of water. According to the State of Iowa Hazard Mitigation.		
Location	2010, \$2,082,964 of damages has been reported in Scott County.  A drought affecting Scott County would affect the entire county because of the widespread climatic conditions that lead to drought. Agricultural areas would be most adversely affected, because of the dependence on precipitation and water. Reference Map III-4 Standardized  Precipitation Index 24 month map for more information	
Severity	<ul> <li>Precipitation Index 24 month map for more information.</li> <li>A. Health and safety of persons in affected areas: Few if any health effects to people in the affected area because of secondary sources of water. Drought in the U.S. seldom results directly in the loss of life.</li> <li>B. Health and safety of response personnel: Minimal risk</li> <li>C. Continuity of operations: Not affected</li> <li>D. Property, facilities, and infrastructure: Property losses would be limited to livestock and crops to the agricultural community. Facilities would not be affected. Infrastructure could be affected in areas of expansive soils due to drying soils, lower water levels around dams, etc.</li> <li>E. Delivery of services: Impact would be limited to source water delivery and those services that consume large amounts of water.</li> <li>F. Environment: Drought is a naturally occurring hazard that occurs about every 20 years. The environmental effects are usually short-term (resilient) and the natural environment is used to drought cycles. Drought more directly affects agricultural crops, livestock, natural vegetation wildlife, and stream flows (fish and aquatic vegetation).</li> <li>G. Economic and financial conditions: Drought can lead to large and damaging effects to the agricultural economy. Because of Iowa's reliance on the agricultural economy, the economic and financial effects would certainly ripple to other sectors. Rural areas can be especially affected by long-term drought. If restrictions are put on manufacturers that use large amounts of water, the local economy can be affected that way as well.</li> <li>H. Regulatory and contractual obligations: Regulations in the agricultural sector can be and are often adjusted to provide some lenience for adverse conditions for livestock and crop loss.</li> <li>I. Reputation of the entity: Drought is a naturally occurring hazard and is "out of the hands" of local and state officials. Local jurisdictions can have their reputation damaged if they do not provide source</li></ul>	
Speed of Onset		

Evaluation Criteria	Description
	atmospheric conditions that produce the physical aspects of drought, primarily precipitation and temperature. There are so many variables that can affect the outcome of climatic interactions, and it is difficult to predict a drought in advance. In fact, an area may already be in a drought before it is even recognized. While the warning of the drought may not come until the drought is already occurring, the secondary effects of a drought may be predicted and warned against weeks in advance.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
National Drought Mitigation Center	http://www.drought.unl.edu/index.htm	
National Climatic Data Center	http://www.ncdc.noaa.gov/oa/climate/severeweather/extremes.html	
National Weather Service Quad Cities, IA	http://www.ash.nogg.cov/dyn/alimata/	
IL Local Climate	http://www.crh.noaa.gov/dvn/climate/	

Map III-4 Standardized Precipitation Index (24 Months)



# Earthquake

**Definition:** Any shaking or vibration of the earth caused by the sudden release of energy that may impose a direct threat to life and property.

**Description:** An earthquake is a sudden, rapid shaking of the earth caused by the breaking and shifting of the rock beneath the surface of the Earth. There are three general classes of earthquakes; tectonic, volcanic, and artificially produced. The shaking produced by the earthquake can cause buildings, bridges, and other structures to collapse and disrupt gas, electric, and phone services. Earthquakes also have the potential to trigger landslides, flash floods, and fires.

**Maximum Extent:** The effect of an earthquake on the surface of the Earth is called the intensity. The intensity scale takes into consideration responses such as people awakening, movement of furniture, and destruction. The scale that is currently used in the United States is the Modified Mercalli Intensity Scale, which was developed in 1931. The Modified Mercalli Intensity Scale contains 12 levels of increasing intensity, ranked by observed effects.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.75	0.30	0.60	0.29	1.93

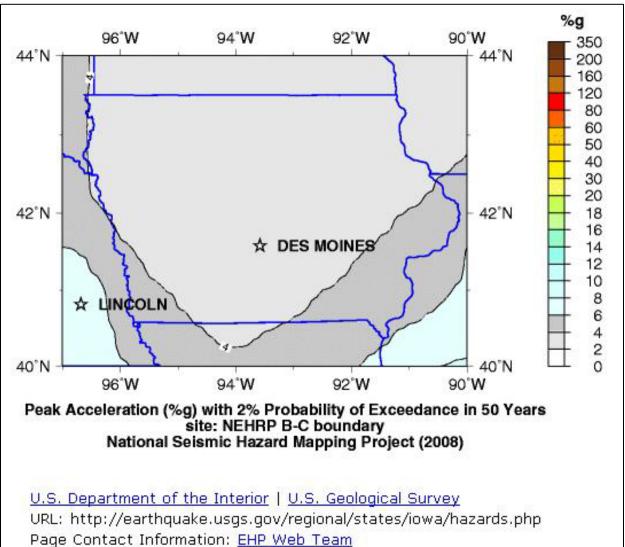
	Modified Mercalli Intensity Scale		
LEVEL	DEFINITION		
I.	Not felt except by a very few under especially favorable conditions.		
II.	Felt only by a few persons at rest, especially on upper floors of buildings.		
III.	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.		
IV.	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed, walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.		
V.	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.		
VI.	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.		
VII.	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.		
VIII.	Damage slight in specially designed structures; well-designed frame structures thrown out of plumb.  Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls.  Heavy furniture overturned.		
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.		
Х.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.		
XI.	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.		
XII.	Damage total. Lines of sight and level are distorted. Objects thrown into the air.		

Source: Iowa Geological Survey (http://www.igsb.uiowa.edu/earthqua/MERCALLI.htm)

Evaluation Criteria	Description
Historical Occurrence	According to the State of Iowa Geological Survey, there have been 13 earthquakes in the state between 1867 and 2004, with four of those earthquakes occurring in Scott County. The largest earthquake in Scott County (and the State of Iowa) occurred in the City of Davenport on November 12, 1934. That earthquake registered as a VI on the Modified Mercalli Intensity Scale.  November 12, 1934: Mercalli Intensity of VI; the epicenter was located in Davenport/Rock Island, IL.  January 5, 1935: Mercalli Intensity of IV; the epicenter was located in Davenport/Rock Island, IL.  November 24, 1939: Mercalli Intensity of II –III; the epicenter was located in Davenport/Rock Island, IL.  Being near the Mississippi River, Scott County would also feel vibrations from earthquakes with epicenters in Illinois or from the New Madrid seismic zone. The most recent of these was on April 18, 2008 when a Magnitude 5.2 earthquake occurred in the Wabash Valley Seismic Zone, located to the north of the New Madrid seismic zone. The earthquake and subsequent aftershocks were felt widely throughout the central United States with as much as a Mercalli magnitude IV through Illinois and surrounding states to the east.
Probability	Seismologists attempt to forecast earthquakes size and frequency based on data from previous events. In the New Madrid seismic zone, this analysis is difficult because there are few historic moderate to large earthquakes, and the active faults are too deeply buried to monitor effectively. According to the USGS; based on the history of past earthquakes in the New Madrid fault zone, the chance of a magnitude 6 or higher earthquake in the next 50 years is 25 to 40%.
Vulnerability	Most structures built in Scott County and in the State of Iowa are not built to earthquake standards; although the effect of a possible earthquake will most likely be of low intensity resulting in mainly foundational damage. The most vulnerable structures in the county would be those built on poorly consolidated substrate, especially floodplain materials. The 2010 State of Iowa Hazard Mitigation plan estimates that less than \$2,500,000 statewide.
Location	The historical occurrences of earthquakes in Scott County place all four incidents in the City of Davenport, with the possibility of the whole county feeling the impact. Map III-5 indicates the seismic probability for the state of Iowa.
Severity	<ul> <li>A. Health and safety of persons in affected areas: Negligible. Few if any injuries.</li> <li>B. Health and safety of response personnel: Negligible. Few if any injuries.</li> <li>C. Continuity of operations: No interruptions expected.</li> <li>D. Property, facilities, and infrastructure: Minor damage if any.</li> <li>E. Delivery of services: No interruptions expected.</li> <li>F. Environment: No impact.</li> <li>G. Economic and financial conditions: No impact.</li> <li>H. Regulatory and contractual obligations: No known impact.</li> <li>I. Reputation of the entity: No impact.</li> </ul>
Speed of Onset	Earthquake prediction is an inexact science, and even in well monitored areas with scientific instruments, scientists very rarely predict earthquakes.

Sources			
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007		
Iowa Geological Survey Bureau	http://www.igsb.uiowa.edu/browse/earthqua/earthqk2.htm		
City of Davenport	Davenport Pre Disaster Mitigation Plan, 2007		
U.S. Geological Survey	http://earthquake.usgs.gov/regional/ceus/		

**Map III-5** Seismic Hazards



Page Last Modified: June 26, 2009 00:15:03 UTC

#### **Enemy Attack**

**Definition:** An incident that would cause massive destruction and extensive casualties. An allout war would affect the entire population. Some areas would experience direct weapons' effects: blast, heat, and nuclear radiation; others would experience indirect weapons' effect, primarily radioactive fallout.

**Description:** The federal government monitors the international political and military activities of other nations and would notify the State of Iowa of escalating military threats. There are many smaller military installations in Iowa. Most are Iowa National Guard assets spread throughout the state comprised of various military units and functions. Rock Island Arsenal is a federal installation located on an island in the Mississippi River between Davenport, Iowa and Rock Island, Illinois.

**Maximum Extent:** A full-scale attack in the foreseeable future is not likely; however a limited attack could take place that could potentially threaten target areas. Given the tremendous destructive capability of even one nuclear weapon, the devastation that could occur would be far worse than anything ever experienced in this country.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.72	0.94	0.56	0.39	2.61

Evaluation Criteria	Description	
Historical Occurrence	There have been no enemy attacks on or in Iowa in modern times. The only history of enemy attack dates back to the days of settlement and the Civil War in the 1800s.	
Probability  Although Scott County is the third most populated county in Iowa with Davenport being third most populated city in Iowa, it is unlikely that the county or a city within the count would be a primary target during an enemy attack. The U.S. federal government monitor global political situations and provides security from international attacks. The breakup Soviet Union and other Soviet-Bloc nations has ended the Cold War; however enemy at still a possibility due to international conflicts and the large number of weapons still in existence throughout the world. Mitigation and/or response to an enemy attack are beyonscope of the county's authority.  The targets of attacks on critical infrastructure would likely include both facilities in the economy and those in the government sector. These critical infrastructures include information and communication systems; electrical power systems; gas and oil productive storage, and transportation systems; banking and finance organizations; transportation and distribution systems; water supply systems; emergency services; government service. Now every citizen, business, and organization depends on these for normal operation as well as afety and security. If not affected directly, the entire community would be vulnerable through indirect effects. Due to lack to data from historical occurrences as well as the least occurrence, it is difficult to estimate potential losses due to enemy at this time.		
		Location
Severity	A. Health and safety of persons in affected areas: Severity of impact would depend on the type of weapons deployed and the scale of the attack. Nuclear, chemical, biological, or conventional weapons have various types of effects. In a full attack on the state, there could be mass casualties and fatalities. Lives not threatened by the primary attack would	

Evaluation Criteria	Description	
	be in jeopardy from many various post attack threats such as sickness, starvation, and	
	exposure to the elements.	
	B. Health and safety of response personnel: Same as above.	
	C. Continuity of operations: Varies.	
	D. <i>Property, facilities, and infrastructure:</i> In a full attack on the state, there could be catastrophic property and infrastructure damage.	
	E. Delivery of services: Varies.	
	F. Environment: In a full attack on the state, there could be radiological, chemical, or	
	biological contamination of the air, soil, water, and food supply.	
	G. Economic and financial conditions: A full-scale attack could be extremely costly, not only monetarily, but also economically.	
	H. Regulatory and contractual obligations: Not available.	
	I. Reputation of the entity: Reputation will be determined by how well the entity responds	
	to such an attack.	
	As mentioned above, the United States federal government monitors worldwide political and	
Speed of Opent	military activity. The citizens and states of the U.S. would be put on heightened alert during	
Speed of Onset	periods of intense political and military conflict. With Iowa's position in the interior of the	
	U.S., there would likely be significant warning of an impending enemy attack.	

	Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007		
City of Davenport	Pre-Disaster Mitigation Plan, February 2007		
Iowa Department of Public Defense	http://www.state.ia.us/government/dpd/index.html		
U.S. Department of Defense	http://www.dod.gov		
U.S. State Department	http://www.state.gov/secretary		
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters/shtml		
Disaster Center	http://www.disastercenter.com		

### **Energy Failure**

**Definition:** An extended interruption of electric, petroleum or natural gas service, which could create a potential health problem for the population and possibly mass panic.

**Description:** International events could potentially affect supplies of energy-producing products while local conditions could affect disruption of electricity, petroleum, or natural gas. The magnitude and frequency of energy shortages are associated with international markets. Local and state events such as ice storms can disrupt transportation and distribution systems. Electric transmission may be disrupted in brown outs and black outs due to weather-related or infrastructure incidents. If disruptions are long lasting, public shelters may need to be activated to provide shelter from either extreme cold or extreme heat. Stockpiles of energy products eliminate short disruptions but can also increase the level of risk to the safety of people and property in proximity to the storage site.

**Maximum Extent:** The effect of an energy shortage would be felt throughout the State of Iowa. Because the distribution systems are very well developed, local shortages can usually be quickly covered.

	Hazard Score Calculation				
Pr	obability	Magnitude/Severity	Warning Time	Duration	Weighted Score
	0.81	0.54	0.59	0.28	2.21

Evaluation Criteria	Description			
	There have been nine significant energy disruptions in Scott County over the past 10 years. These are events where residents are without power for a significant amount of time. All of these events were caused by severe storms and/or high winds. Historical data is the compilation from all three energy companies that serve Scott County.			
	Date	Cause of Disruption	Number of Residents Affected by the Disruption	
	09/11/2000 - 09/14/2000	Severe thunderstorm	77,102	
Historical	06/14/2001 - 06/16/2001	Severe thunderstorm	17,334	
Occurrence	02/24/2007 - 03/02/2007	Severe winter storm (snow & ice) and high winds	36,664	
	07/21/2008 - 07/24/2008	Severe thunderstorm and high winds	23,793	
	12/01/2007 - 12/02/2007	Severe winter storm (ice)	459	
	12/11/2007 - 12/12/2007	Severe winter storm (ice)	990	
	06/07/2008 - 06/08/2008	High winds	669	
	06/19/2009 - 06/21/2009	Severe thunderstorm and high winds	20,457	
	12/09/2009	Severe winter storm (ice)	898	
		eason for an energy failure or disr		
Probability	years. The State of Iowa has shortage: through voluntary	ounty can expect one significant energy failure or disruption once lowa has three strategies in place to limit the likelihood of an ener untary and mandatory demand reduction mechanism, the substitu		
		then possible and state governmen nergy loss was not reported, it is d	t programs to curtail excessive use. ifficult to estimate the loss	

Evaluation Criteria	Description		
	associated with past energy failures. Should more detailed information become available in the future, an estimated potential loss will be done based on current energy costs.		
Vulnerability	Iowa is mainly dependent on out-of-state resources for its energy; petroleum, natural gas, and coal are all transported into the state by pipeline. Coal is transported into the region by train and barge. Disruptions or incidents in these energy source states can lead to a shortage in the State of Iowa, as well as in Scott County. It is also likely that increasing prices will occur as market mechanisms are used to manage supply distributions. Agricultural, industrial, and transportation sectors are also vulnerable to supply, consumption, and price fluctuations. Energy shortages could be offset by the use of local renewable resources such as wind, where available.  Incidents of an energy failure can take place anywhere in the county. There is no way of telling		
Location	where an incident could take place.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: Negligible to Limited. Injuries and fatalities would not be directly caused by an energy shortage. Injuries and fatalities could occur if energy was not available for heating during extreme cold periods or for cooling during extreme heat.</li> <li>B. Health and safety of response personnel: Negligible. None directly.</li> <li>C. Continuity of operations: Negligible. Hospitals, shelters, emergency response vehicles and facilities, and other critical facilities would have priority during energy shortages.</li> <li>D. Property, facilities, and infrastructure: Negligible. No direct damages.</li> <li>E. Delivery of services: Negligible to Critical. Effects could range from minor heating and air conditioning disruptions to transportation limitations all the way to civil unrest due to the high demand, low supply, and subsequent high prices.</li> <li>F. Environment: Negligible. None directly.</li> <li>G. Economic and financial conditions: Rotating blackouts, voluntary conservation measures, and possibly mandatory restrictions could be used to limit the severity of an energy shortage. Business disruption and increased cost of business would have far-reaching financial implications across many sectors of the economy.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Limited. Reputation could be harmed if the reason for the shortage or failure could have been avoided by good planning. If caused by natural events, there would be no significant impact unless the response to the outage was poor.</li> </ul>		
Speed of Onset	The Iowa Department of Natural Resources Energy Bureau monitors domestic and international energy situations and has developed a plan to deal with an energy crisis. Signs that an energy shortage may be developing can be recognized even months in advance, but energy shortages/emergencies can rise suddenly and unexpectedly. Supply distribution problems in other countries and local weather situations can lead to low supply coupled with high demand in a matter of a day or two.		

Sources	
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007
Alliant Energy Company	www.alliantenergy.com
Eastern Iowa Light & Power Cooperative	www.easterniowa.com
Mid American Energy Company	www.midamericanenergy.com
U.S. Energy Information Administration	http://www.eia.doe.gov/

### **Expansive Soils**

**Definition:** Soils and soft rock that tend to swell or shrink excessively due to changes in moisture content.

**Description:** The effects of expansive soils are most prevalent in regions of moderate to high precipitation, where prolonged periods of drought are followed by long periods of rainfall. The hazard is most common in the southern, central, and western United States. Recent estimates put the annual damage from expansive soils as high as \$7 billion. However, because the hazard develops gradually and seldom presents a threat to life, expansive soils have received limited attention, despite their costly effects.

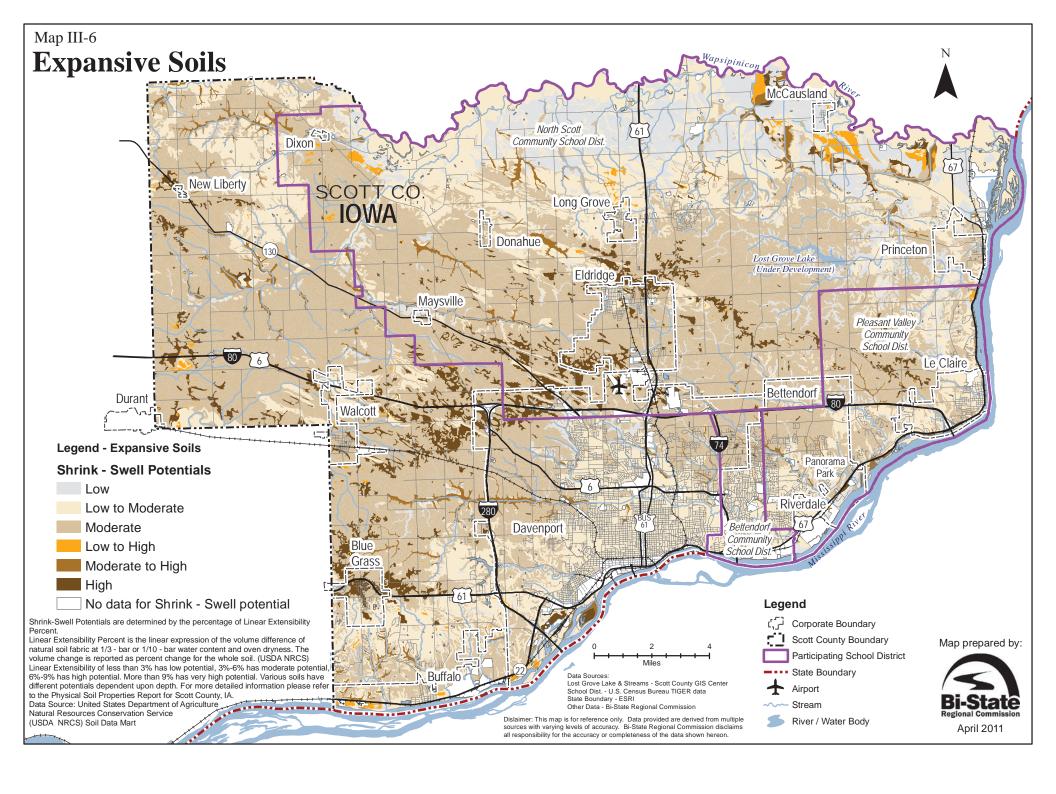
**Maximum Extent:** The majority of the soils in the urban areas of Scott County have a low to moderate shrink-swell potential. However, there are a few areas in the county with high potential for soil expansion. These areas are located in and around the City of Blue Grass, along the Mississippi River south of Davenport, and following the southwest to northeast expanse of bluff from Walcott to Eldridge. There is also a section of northern Scott County near McCausland with a low to high shrink-swell potential.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.46	0.30	0.16	0.23	1.16

Evaluation Criteria	Description	
Historical	Historical records of damage due to expansive soils are not kept on a county-wide scale due to	
Occurrence	the timeframe of such events.	
Probability	Probability and frequency analyses have not been prepared because of the nature of occurrence of this hazard. This is consistent with other geologic hazards that occur slowly over time. However, it can be said that the probability of soil expansion is greater in the areas identified above and on Map III-6, which shows the shrink-swell potential for soils within Scott County.	
Vulnerability	Little if any direct human effects occur with soil expansion. Effects commonly involve swelling clays beneath areas covered by buildings and slabs of concrete or asphalt, such as those used in construction of highways, walkways, and airport runways.	
Location	Refer to the Map III-6 for locations of greatest soil expansion potential.	
Severity	<ul> <li>A. Health and safety of persons in affected area: None</li> <li>B. Health and safety of response personnel: None</li> <li>C. Continuity of operations: None</li> <li>D. Property, facilities, and infrastructure: The most extensive damage from expansive soils occurs to highways and streets. Houses and one-story commercial buildings are more apt to be damaged by the expansion of swelling soils than are multi-storied buildings, which are usually heavy enough to counter swelling pressures. The most obvious manifestations of damage to buildings are sticking doors, uneven floors, and cracking foundations, floors, walls, ceilings, and windows.</li> <li>E. Delivery of services: Utilities could be affected because of constant pushing and pulling resulting in cracks, breaks, and severing of underground infrastructure.</li> <li>F. Environment: Because expansive soils are a naturally occurring phenomenon, there would be no direct environmental effects. Effects would be limited to spills and leaks at containment facilities.</li> <li>G. Economic and financial conditions: Economic and financial effects would be felt by individual owners of buildings and facilities. These would occur over time and would not be a one-time impact.</li> </ul>	

Evaluation Criteria	Description	
	H. Regulatory and contractual obligations: Building code requirements may impose due	
	burden on construction to ensure proper performance of buildings and utilities in areas with expansive soils.	
	I. Reputation of the entity: Because the effects of expansive soils are mostly seen in highways	
	and streets and manifest over time, these effects will most likely be seen as part of routine	
	maintenance. There should be very few effects on the reputation of the responsible entity.	
Speed of Onset	This is consistent with other geologic hazards that may occur slowly over time.	

Sources	
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007
USDA NRCS Soil Data Mart	



#### **Extreme Heat**

**Definition:** Temperature (including heat index) in excess of 100° F or 3 successive days of 90°+ Fahrenheit. A heat advisory is issued when temperatures reach 105° F and a warning is issued at 115° F.

**Description:** An extreme heat event is characterized as a prolonged period of excessive heat and humidity. The heat index is a number in degrees Fahrenheit that tells how hot it really feels when relative humidity and air temperature are calculated together. Exposure to full sunshine can increase the heat index by at least 15° F. Extreme heat can impose stress on humans and animals. Heatstroke, sunstroke, cramps, exhaustion, and fatigue are possible with prolonged exposure or physical activity due to the body's inability to dissipate the heat. Urban areas are particularly at risk because of air stagnation and large quantities of heat absorbing materials such as streets and buildings. Extreme heat can also result in distortion and failure of structures and surfaces such as roadways and railroad tracks.

**Maximum Extent:** Incidents of extreme heat are likely to cover a large area, including most of the State of Iowa or eastern Iowa. Urban areas pose additional risks in these occurrences when stagnant atmospheric conditions of the heat wave trap pollutants, adding to the stresses of hot weather. The following available information from the National Climatic Data Center gives an indication of the magnitude and variety of such events:

Event Date	<b>Location</b>	<u>Fatalities</u>	<b>Property Damage</b>
07/12/1995	All of Iowa	3	\$3.8 million
07/25/1997	Eastern Iowa	1	\$500

	Hazard	Score Calculation		
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
1.12	0.50	0.15	0.30	2.07

Evaluation Criteria	Description
Historical Occurrence	There have been four recorded excessive heat events in Scott County since 1950.  July 12, 1995: This event covered all of Iowa from July 12 <sup>th</sup> through the evening of the 14 <sup>th</sup> , causing three fatalities and \$3.8 million in damage. Dew points ranged from the upper 70s to the middle 80s for much of the time, with the highest dew points in the eastern half of the state.  High temperatures were between 98° and 108° Fahrenheit, and the highest temperature of 109° F was recorded in Council Bluffs. Most weather stations across the state broke the century record over the two-day period. The three fatalities were reported in Des Moines, Marshalltown, and Burlington. Two of the fatalities were elderly people. The majority of property damage losses were in the form of livestock.  July 25, 1997: Excessive heat indices of 105 to 110 were reached in the eastern half of the state during this event, which lasted through the 27 <sup>th</sup> . The highest temperatures were recorded on the 26 <sup>th</sup> when record-setting high minimum temperatures were also experienced. The Quad Cities Bix 7 Run was also on the 26 <sup>th</sup> , and the heat caused 12 injuries and one fatality. Minimum property damage was experienced in the form of livestock.  July 19, 1999: This event lasted from the 19 <sup>th</sup> to the 31 <sup>st</sup> . Many heat advisories and warnings were issued for portions of eastern Iowa during this period. Temperatures around 100° F combined with dew points in the 70s produced heat indices of 105 to 125. Although no fatalities were reported in Iowa, 19 people in Illinois and 27 people in Missouri died from heat-related

Evaluation Criteria	Description
	factors over this time period. <b>August 31, 2000:</b> No injuries, fatalities, or property damage were reported with this event that spread over middle and eastern Iowa. Temperatures topped out in the lower to middle 90s. These hot temperatures combined with high humidity resulted in dangerous heat indices of 105 to 115 during the afternoon.
Probability	Based on historical information, Iowa will likely experience about 26 days a year with temperatures above 90°. There is a very good chance that there will be a period of three consecutive days or more with temperatures in the 90s. It is also common for the temperature to hit 100° F or more once every three years during the summer months.
Vulnerability	Certain populations, including the elderly, small children, chronic invalids, and others with medical problems, are particularly susceptible to heat reactions. Low-income households without access to fans or air-conditioned rooms, particularly inner city dwellers, may also be more susceptible to heat reactions. The 2010 State of Iowa Hazard Mitigation Plan states that Scott County experiences approximately \$3,000 in damages annual from extreme heat.
Location	Any area in Scott County can be affected by extreme heat with severity ranging depending on environment.
Severity	<ul> <li>A. Health and safety of persons in affected area: Persons working outdoors and vulnerable populations as described above may be at risk to heat reactions. Severe reactions may result in injury or death. Outdoor events drawing large numbers of people are occasions for special concerns.</li> <li>B. Health and safety of response personnel: Safety policies for emergency response personnel should prevent most risk or injury.</li> <li>C. Continuity of operations: Operations may be briefly affected by power outages.</li> <li>D. Property, facilities, and infrastructure: Effects to property and facilities would generally not be a factor. Extreme heat may cause pavement to buckle.</li> <li>E. Delivery of services: Services may be briefly affected by power outages.</li> <li>F. Environment: The environment will not be severely affected except in cases of prolonged drought. Some instances of heat-related injuries to livestock, pets, and wildlife may occur.</li> <li>G. Economic and financial conditions: There may be energy cost effects depending on the duration of extreme heat events.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: No impact</li> </ul>
Speed of Onset	Periods of extreme heat are predictable within several days. The National Weather Service initiates alert procedures when the heat index is expected to exceed 105° Fahrenheit for at least two consecutive days.

Sources		
State of Iowa, IHSEMD Iowa Hazard Mitigation Plan, 2007		
National Climatic Data Center <a href="http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms">http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms</a>		

#### Fixed-Hazardous Materials Incident

**Definition:** Accidental release of chemical substances or mixtures that presents danger to the public health or safety during production or handling at a fixed facility.

**Description:** A hazardous substance is one that may cause damage to persons, property, or the environment when released to soil, water, or air. Chemicals are manufactured and used in ever increasing types and quantities. As many as 500,000 products pose physical or health hazards and can be defined as "hazardous chemicals." Each year, over 1,000 new synthetic chemicals are introduced. Hazardous substances are categorized as toxic, corrosive, flammable, irritating, or explosive. Hazardous materials incidents generally affect a localized area and the use of planning and zoning can minimize the area of impact.

**Maximum Extent:** Most of the hazardous materials incidents are localized and are quickly contained or stabilized by the highly-trained fire departments and hazardous materials teams. Depending on the characteristics of the hazardous material or the volume of the product involved, the affected area can be as small as a room in a building or as large as 5 square miles or more. Many times, additional regions outside the immediately affected area are evacuated for precautionary reasons. More widespread effects occur when the product contaminates the municipal water supply or water system such as a river, lake, or aquifer.

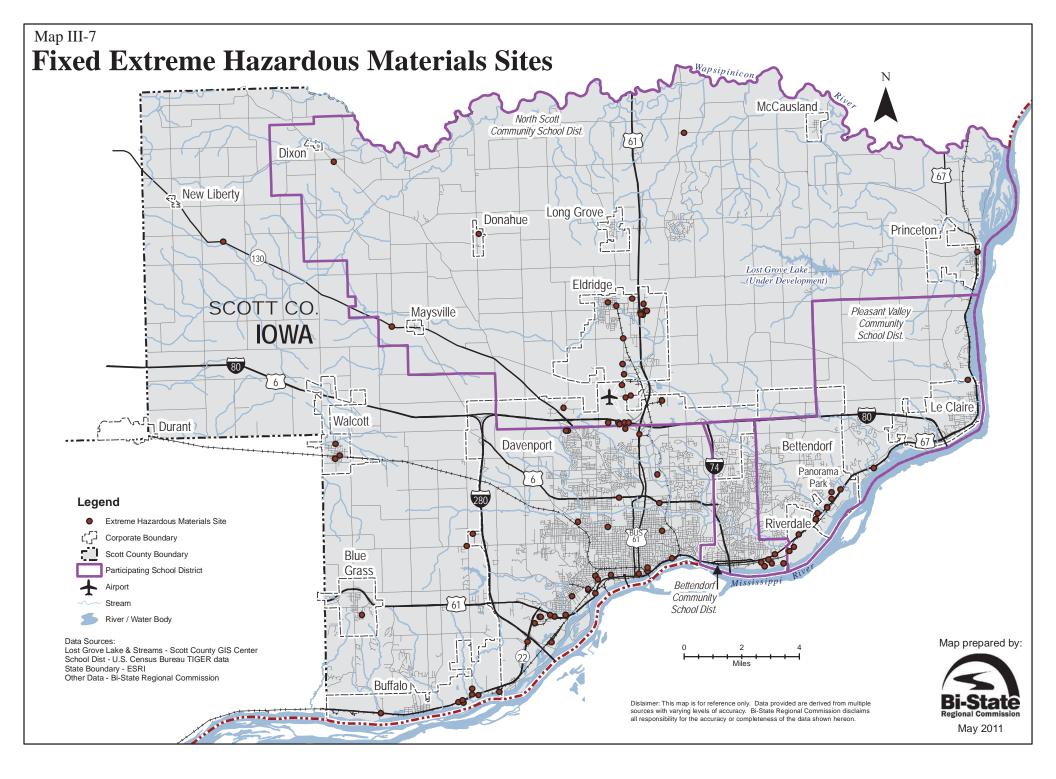
	Hazard	Score Calculation		
Probability Magnitude/Severity Warning Time Duration Weighted Score				
1.33	0.50	0.59	0.28	2.70

Evaluation Criteria		Description		
Historical Occurrence	According to the Iowa Department of Natural Resources Chemical Spills Report Database, 327 chemical spills were reported at fixed facilities within Scott County between 1995 and February of 2010. Costs associated with spill clean-ups were not reported.			
	There are 152 sites in Scott County that because of the volume or toxicity of the materials on-site are designated as Tier II facilities under the Superfund Amendments and Reauthorization Act. Despite increasing safeguards, more and more potentially hazardous materials are being used in commercial, agricultural, and domestic activities.  Based on information provided from the Iowa Department of Natural Recourses Chemical Spills Report Database, the City of Davenport has the highest probability of a hazardous materials incident at a fixed facility. The table below shows the number of hazardous materials incidents at fixed facility between 1995 and February of 2010 by jurisdiction and the average number of incidents per year.			
Probability	Fixed Hazard Materials Incidents by Jurisdiction			
	Jurisdiction  Fixed Hazardous  Materials Incidents  Average Number of Incidents per Year			
	City of Bettendorf	82	5.79	
	City of Blue Grass         3         0.21           City of Buffalo         8         0.56           City of Davenport         152         10.73			
	City of Dixon	3	0.21	

Evaluation Criteria	Description		
	Jurisdiction	Fixed Hazardous Materials Incidents	Average Number of Incidents per Year
	City of Donahue	1	0.07
	City of Eldridge	16	1.13
	City of LeClaire	9	0.64
	City of Long Grove	3	0.21
	City of Maysville	1	0.07
	City of McCausland	2	0.14
	City of New Liberty	1	0.07
	City of Panorama Park	0	0.00
	City of Princeton	6	0.42
	City of Riverdale	14	0.99
	City of Walcott	15	1.06
	Unincorporated Area	11	0.78
Vulnerability	A hazardous materials incident can occur almost anywhere, so any area is considered vulnerable to an incident. People, pets, livestock, and vegetation in close proximity to facilities producing, storing, or transporting hazardous substances are at a higher risk. Populations downstream, downwind, and downhill of a released substance are particularly vulnerable. Depending on the characteristics of the substance released, a larger area may be in danger from explosion, absorption, injection, ingestion, or inhalation. Occupants of areas previously contaminated by a persistent material may also be harmed either directly or through consumption of contaminated food and water. Facilities are required to have an off-site consequence plan that addresses the population of the surrounding area. Responding personnel are required to be trained to HAZMAT operations level to respond to the scene, and those personnel that come into direct contact with substances released are required to have HAZMAT technician level training. Costs of the hazardous materials incidents were not reported; therefore it is difficult to estimate the potential loss or structures that would be damaged.  There are 152 registered Tier II facilities within Scott County. Extremely Hazardous Substances and are shown by general location in Map III-7. The majority of facilities are located within the		
Location	City of Davenport, which also has a larger portion of the fixed-haza		trial land. Other jurisdictions with
	Eldridge, and Walcott. Fixed-ha		
Severity	<ul> <li>along the railroads as well as major highways and interstates.</li> <li>A. Health and safety of persons in affected areas: The release of some toxic gases may cause immediate death, disablement, or sickness if absorbed through the skin, injected, ingested, or inhaled. Some chemicals may cause painful and damaging burns to skin if they come in direct contact with your body.</li> <li>B. Health and safety of response personnel: Specialized training is needed to respond to these types of incidents. If inadequately trained personnel attempt to respond, the effects could be the same as those for the general public exposed to the toxic materials. Proper training and equipment greatly reduce the risk to response personnel.</li> <li>C. Continuity of operations: None directly unless the incident occurs on or near critical facilities or services.</li> <li>D. Property, facilities, and infrastructure: Damage is usually limited to the immediate property involved. Proper decontamination is needed before facilities go back in service.</li> <li>E. Delivery of services: Contaminated water resources may be unsafe and unusable, depending on the amount of contaminant.</li> <li>F. Environment: Contamination of air, ground, or water may result in harm to fish, wildlife, livestock, and crops. The release of hazardous materials into the environment may cause</li> </ul>		

Evaluation Criteria	Description
	debilitation, disease, or birth defects over a long period of time.  G. Economic and financial conditions: Loss of livestock and crops may lead to economic
	hardships within the communities.
	H. Regulatory and contractual obligations: None known.
	I. Reputation of the entity: Safe and timely response will greatly limit any damage to the
	jurisdiction's reputation. Proper warning and public information before, during, and after
	the incident can also limit reputation damage.
	When managed properly under regulations, hazardous materials pose little risk; however when
	handled improperly or in the event of an accident, hazardous materials can pose a significant risk
	to the population. Hazardous materials incidents usually occur very rapidly with little to no
Speed of Onset	warning. Even if reported immediately, people in the area of the release have very little time to
	be warned and evacuated safely. Public address systems, television, radio, and the NOAA
	Weather Alert Radios are used to disseminate emergency messages about hazardous materials
	incidents.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	
Iowa Department of Natural Resources	Iowa Tier II Emergency and Hazardous Chemical Inventory Database Chemical Spills Reporting Database 1/1/1995-2/15/2010	



## Fixed-Radiological Incident

**Definition:** An incident resulting in a release of radiological or nuclear material at a fixed facility to include power plants, hospitals, laboratories, and other facilities that employ radiological materials.

**Description:** Although the term "nuclear accident" has no strict technical definition, it generally refers to events involving the release of significant levels of radiation. Most commercial nuclear facilities in the United States were developed in the mid-1960s and are designed to withstand aircraft attack. Therefore, they should withstand most natural hazards even though they may not have been specifically designed for those forces. Medical facilities may also have radiological materials on site.

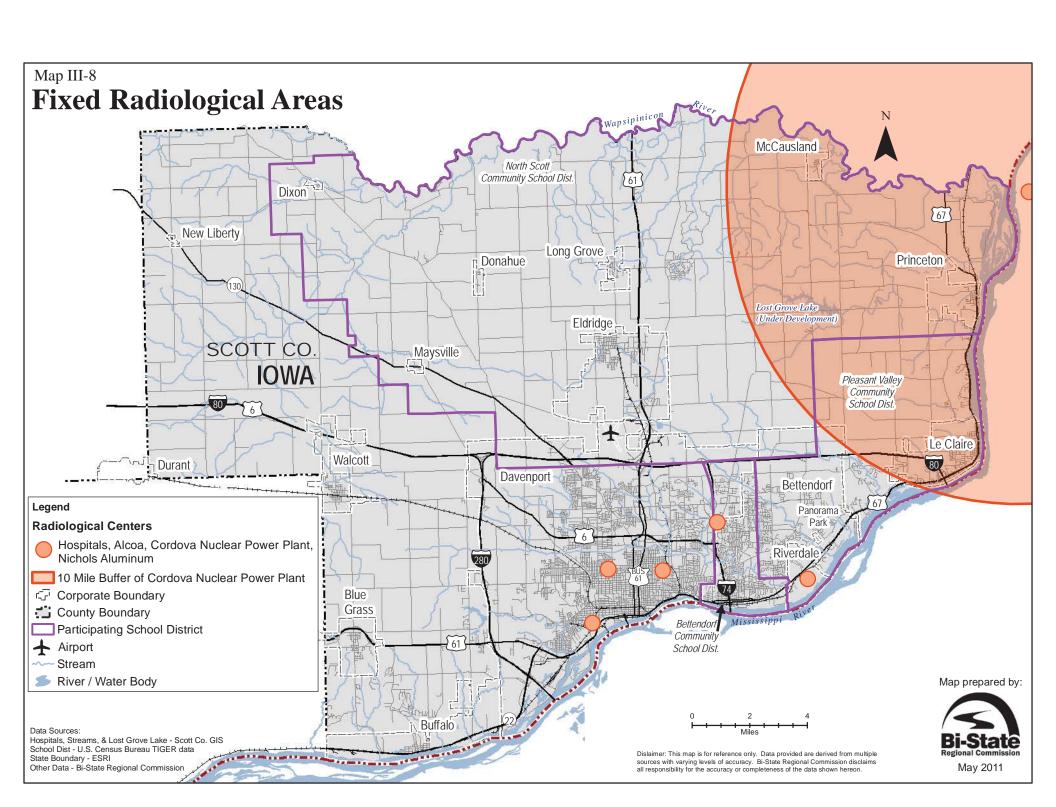
**Maximum Extent:** In 30 years of nuclear power production in the United States, no deaths or serious injuries from radiation have been recorded among the general public. Except in a nuclear detonation, exposure to large amounts of radiation is less likely to cause large-scale damage, death, and injury than many of the conventional occurring radiation such as radon. According to the USGS, all of Iowa has a high potential to geologic radon.

	Hazard	Score Calculation		
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.45	0.80	0.38	0.28	1.91

Evaluation Criteria	Description
Historical Occurrence	Emergency incidents are divided into four categories. Each calls for a certain level of response from plant and government personnel. From least to most severe, the classifications are: unusual event, alert, site area emergency, and general emergency. Since 1990, the Quad Cities Nuclear Power Plant has had 17 unusual events, 7 alerts, and no site area emergencies or general emergencies.
Probability	All operators of facilities that use radioactive materials and transporters of radioactive waste are circumspect in the packaging, handling, and shipment of radioactive waste, and also, since they are closely regulated by a variety of federal, state, and local organizations, the likelihood of an incident is remote. Hospital facilities in Davenport that have radiological materials have recently upgraded facilities to avoid future incidents. The State Hazard Mitigation Team (SHTM) has estimated that the probability of a fixed-radiological incident occurring in Iowa in the next 100 years is less than 1%.
Vulnerability	Radiation exposure from the sun, radioactive elements in the soil and rocks, household appliances, and medical and dental x-rays account for most radiation exposure sources. Natural background radiation accounts for 71% of radiation exposure sources in the U.S. Radon from rocks and soil provide 55% of all sources of radiation in the U.S. Cracked, poorly ventilated basements can contain high levels of radon and as a result, increase exposure household residents and those that spend a significant amount of time in the contaminated basement. Other sources of radioactive materials include medical products, industrial products, nuclear power plant fuel, nuclear weapons, and radioactive waste from hospitals, laboratories, nuclear reactors, and military facilities. An incident is not likely to cause much damage to physical property; however the effects to human health and the environment would be catastrophic.

Evaluation Criteria	Description				
Location	Scott County does not have a nuclear power plant located within the county borders. However, the Quad Cities Nuclear Power Plant is located across the Mississippi River from Scott County in Cordova, Illinois. Map III-8 shows a 10-mile radius from the Cordova Nuclear Power Plant in addition to two local hospitals and two businesses that use radioactive materials in their processing.				
Severity	<ul> <li>A. Health and safety of persons in affected areas: Depending on the level of exposure, radiation can cause loss of life and long and short-term health effects. Time, distance, and shielding minimize radiation exposure to the body. Nuclear radiation above normal levels could be a health and safety consideration because of its ability to damage human cells biologically.</li> <li>B. Health and safety of response personnel: Specialized training is needed to respond to these types of incidents. If inadequately trained personnel attempt to respond, the effects could be the same as those for the general public exposed to toxic materials. Proper training and equipment greatly reduce the risk to response personnel.</li> <li>C. Continuity of operations: None directly.</li> <li>D. Property, facilities, and infrastructure: Property damage can result from contamination and disruption of business because of evacuations.</li> <li>E. Delivery of services: Power plants may be taken off line for extended periods of time. Other effects would be indirect and only if in the contaminated area.</li> <li>F. Environment: Damage to the environment can be very long-lasting depending on the half-life of the products involved.</li> <li>G. Economic and financial conditions: If the land and facilities cannot be used for weeks, months, or even years, the loss of production would be devastating. Economic effects would be multi-sector and long lasting, especially in and around the affected region.</li> <li>H. Regulatory and contractual obligations: Indemnification would be a vital issue to address. Because of the ownership of the facility by the private sector, the courts would have to address all of the diverse issues related to damages direct and indirect.</li> <li>I. Reputation of the entity: Reputation of the county can be very damaging because of the high profile of these events. The negative impact can be felt for decades following a contamination.</li> </ul>				
Speed of Onset	Ionizing radiation cannot be seen, smelled, heard, or detected with human senses. Detection instruments are needed to indicate the existence of dangerous radiation. Distance from the incident would dictate the amount of time needed to avoid exposure from damaging radiation. Protective actions directed by state, county, and city officials would depend upon weather conditions and developments at the power plant. In an actual emergency, the public can turn to their local Emergency Alert System Station or NOAA Weather Radio.				

Sources		
State of Iowa, IHSEMD Iowa Hazard Mitigation Plan, 2007		
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	



#### Flash Flood

**Definition:** A flood event occurring with little to no warning where water levels rise at an extremely fast rate.

**Description:** Flash flooding results from intense rainfall over a brief period, sometimes combined with rapid snow melt, ice jam release, frozen ground, saturated soil, or impermeable surfaces. Most flash flooding is caused by slow-moving thunderstorms or thunderstorms repeatedly moving over the same area. Flash flooding is an extremely dangerous form of flooding that can reach full peak in only a few minutes and allows little time or no time for protective measures to be taken by those in its path. Flash flood waters move at very fast speeds and can roll boulders, tear out trees, scour channels, destroy buildings, and obliterate bridges. Flash flooding often results in higher loss of life, both human and animal, than slower-developing river and stream flooding.

**Maximum Extent:** Magnitude of flash flooding varies by watershed based on the effects of amounts of rain over time. The following available information from the National Climatic Data Center gives an indication of the magnitude of such events:

<b>Event Date</b>	<b>Location</b>	<b>Amount of Rainfall</b>
08/16/1993	County-wide	6 inches
10/17/1998	County-wide	6.15 inches
08/23/1999	Davenport, Bettendorf	2-3 inches in one hour
05/14/2001	Davenport, Walcott	1.5 to 3 inches
07/27/2002	Davenport, Park View	2.17 to 3.78 inches
07/04/2007	County-wide	3-6 inches

Precipitation extremes recorded at the Le Claire Lock & Dam 14 station:

Highest daily rainfall: 7.53 inches on June 17, 1990 Highest monthly rainfall: 17.80 inches in June 1990

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Scor				
1.27	0.64	0.56	0.22	2.69

Evaluation Criteria	Description
Historical Occurrence	Floods are the most common and widespread of all natural disasters except fire. In Iowa, as much as 24" of rain has fallen in a 24-hour period. As recently as June 1998, 13" of rain fell in western Iowa during a single rain event causing severe flooding. The National Climatic Data Center (NCDC) lists 52 flash flooding/urban and small stream flooding events from 1993-2008. Multiple events may occur during a single storm.  June 1990: The most devastating episode of local creek flooding occurred on June 16, 1990. Twenty-four hour rain totals of three to ten inches in the Quad Cities area falling on already saturated soils, created flash flooding along Black Hawk Creek and Duck Creek and its tributaries. Approximately two weeks later on June 29, 1990, a second flood event of slightly lesser magnitude occurred. Because the of the close time period of these two floods, they are usually referred to as one event, such as the June of 1990 floods.  June 14, 2001: Various locations in Davenport and Bettendorf experienced flash flooding. Streets flooded, including 8-10 inches of water on the road near the intersection of Locust and

Evaluation Criteria	Description
	Scott Streets, and major street flooding on River Drive and State Street. The flash flooding contributed to a five-car accident on Interstate 74 bridge approach to the Mississippi River in Bettendorf. No injuries were reported. Spencer Creek Bridge at 249 <sup>th</sup> Avenue was under water making the road impassable.
	<b>June 3-4, 2002:</b> Heavy rains resulted in significant flash flooding throughout Scott County. The Waspipinicon River rose well above flood stage, and Duck Creek went out of its banks. Several roads were covered in water, especially at Division Street in Davenport, which was impassable in several locations due to high water. River Drive and Middle Road at 53 <sup>rd</sup> Street closed due to flooding. High water inundated two mobile homes east of Highway 61. A driver was rescued from a stranded vehicle before the van was swept away by flood waters. Flooding was so significant that President Bush declared 17 counties in eastern Iowa, including Scott County, a disaster area. In total, the flooding in 8 counties damaged an estimated 1,004 homes. Of those homes, 22 had major damage and 8 were destroyed. Public property in eastern Iowa was estimated to be at least \$7.2 million.
	March 12-13, 2006: Thunderstorms in the Quad City Metro area produced rainfall rates exceeding 1 inch per 30 minutes. National Weather Service reported 2 feet of water over roads on the Davenport/Bettendorf city limits. Two to three feet of water was reported on Second Street in Davenport with River Drive and Third Streets in Davenport flooded with thigh-high levels of water. Numerous streets in Davenport were closed due to high water. The media reported sinkholes developing on some streets in Davenport with some residences flooded. Although unknown at the time, the Federal Building in downtown Davenport had its basement
	partially flooded. Law enforcement reported water 4 inches deep flowing into the Davenport Police Station on Harrison Street. The highest known rainfall amount for this event occurred in central Davenport where 3.50 inches fell.
	<b>June 2008:</b> On the 8 <sup>th</sup> of June, heavy rains resulted in flash flooding of Crow Creek about 3 miles north of Bettendorf. On the 12 <sup>th</sup> through the 13 <sup>th</sup> of June, heavy rains resulted in flash flooding of several parts of Davenport and Bettendorf. The depth of the flood waters across much of the metro area ranged from 6 inches to as much as 5 feet. Streets, residential and commercial properties, and area creeks and streams all experienced flooding. Water rescues were performed to save some stranded motorists from high water. Several major traffic arteries were closed due to high flood waters.
Probability	The State Hazard Mitigation Team (SHMT) evaluation in the 2007 Iowa Hazard Mitigation Plan concluded that there is more than a 60% chance of a flash flood in Iowa in the next year. Using NCDC data for the Scott County area, an average of 3.5 flash flooding events are likely to occur in any given year.
Vulnerability	Urbanization increases runoff two to six times over what would occur on natural terrain. As more development occurs in the watersheds, the amount of runoff produced also increases. Often aging storm systems are not designed to carry the capacity currently needed to handle the increased runoff in certain areas. Particularly at risk are those in low-lying areas; close to dry creek beds or drainage ditches; or near water or downstream from a dam, levee, or storage basin. People and property with insufficient storm sewers and other drainage infrastructure can also be put at risk. Nearly half of all flash flood fatalities are auto-related. Motorists often try to traverse water-covered roads and bridges and are swept away by the current. Six inches of swiftly moving water can float a full-sized automobile. Recreational vehicles and mobile homes located in low-lying areas can also be swept away by water. NFIP Repetitive loss information is discussed in the River Flooding hazard profile. The 2010 State of Iowa Hazard Mitigation Plan states that approximately \$363,118 in loss occur annual from flooding.
Location	Areas in the floodplain, downstream from a dam or levee, or in low-lying areas can be affected by flash flooding. People and property in areas with narrow stream channels, saturated soils, or on land with large amounts of impermeable surfaces are likely to be affected in the event of significant rainfall. Unlike areas affected by river/stream flooding, flash floods can affect areas a good distance from the stream itself. Flash flood-prone areas are not particularly those adjacent to rivers and streams. Streets can become swift-moving rivers, and basements can become

Evaluation Criteria	Description				
	deathtraps because flash floods can fill them with water in a matter of minutes.				
Severity	<ul> <li>A. Health and safety of persons in affected area: Flash floods are the number one weather-related killer in the United States. Four people were reported to have lost their lives within the Quad City Area as a result of the 1990 creek flooding event. On July 4, 2007 a man and his son were canoeing on Duck Creek when flash floods overturned their canoe. They were both rescued. Velocity of flash flood waters may be hazardous to people in vehicles. There have been several reports of stalled or stranded vehicles in flash flood waters, and water rescues were performed to remove people from their vehicles.</li> <li>B. Health and safety of response personnel: Rescuers are at a significant risk when attempting to work in swift moving floodwaters associated with flash flooding. Special training in swift water rescue exists, but very few are trained in Iowa on this type of rescue.</li> <li>C. Continuity of operations: Flash floods can often leave roads and intersections closed, resulting in the slowing or halting of operations. Fire Station #5 in Davenport is subject to creek flooding, affecting ingress and egress.</li> <li>D. Property, facilities, and infrastructure: Personal property can be extensively damaged and destroyed by swift moving water. Facilities and infrastructure can be scoured around, degrading its structural integrity. Because flash flood water is off premises quickly, damages related to standing water are limited, but the current associated with flash floods causes abrasive type damages such as erosion and undercutting. Major damage exceeding 50% of the structural value has been recorded. Damage to infrastructure of roads and bridges could be severe due to the high velocity of water.</li> <li>E. Delivery of services: Flash floods can quickly inundate areas thought to be out of the flood-prone areas. Loss of life, property damage and destruction, damage and disruption of services, crop and livestock damage, and loss and interruption of businesses are common impacts from flash flood waters.</li> &lt;</ul>				
	development or other changes in the community as the cause of the flooding on their property.				
Speed of Onset	Flash floods may be unpredictable, but there are factors that can point to the likelihood of the occurrence of a flash flood in the area. As little as a few minutes or hours of excessive rainfall, dam or levee failure, or a sudden release of water held by an ice jam can cause flash flooding. Warnings may not always be possible for the suddenness of flash floods. Predictability of flash floods depends primarily on the data available on the causal rain. Individual basins react differently to precipitation events. Weather surveillance radar is being used to improve monitoring capabilities of intense rainfall. Knowledge of the watershed characteristics, modeling, monitoring, and warning systems increase the predictability of flash floods. Depending on the location in the watershed, warning times can be increased. The National Weather Service (NWS) forecasts the height of flood crests, the data, and the time the flow is expected to occur at a particular location.				

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
National Climatic Data Center (NCDC)	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms	
American Red Cross, Preparedness Fast Facts	Floods http://www.redcross.org	
Federal Emergency Management Agency (FEMA)	http://www.fema.gov/hazard/flood/index.shtm	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	

# **Grass and Wildland Fires**

**Definition:** An uncontrolled fire that threatens life and property in either a rural or wooded area.

**Description:** Grass and wildland fires can occur when conditions are favorable, such as during periods of drought when natural vegetation would be drier and subject to combustion.

Maximum Extent: As a scale of magnitude, Keetch and Byram (1968) designed a drought index specifically for fire potential assessment. It is a number representing the net effect of evapotranspiration and precipitation in producing cumulative moisture deficiency in deep duff and upper soil layers. It is a continuous index relating to the flammability of organic material in the ground. The Keetch-Byram Drought Index (KBDI) attempts to measure the amount of precipitation necessary to return the soil to full field capacity. It is a closed system ranging from 0 to 800 units and represents a moisture regime from 0 to 8 inches of water through the soil layer. At 8 inches of water, the KBDI assumes saturation. Zero is the point of no moisture deficiency, and 800 is the maximum drought that is possible. At any point along the scale, the index number indicates the amount of net rainfall that is required to reduce the index to zero or saturation. The inputs for KBDI are weather station latitude, mean annual precipitation, maximum dry bulb temperature, and the last 24 hours of rainfall. Reduction in drought occurs only when rainfall exceeds 0.20 inch (called net rainfall). The computational steps involve reducing the drought index by the net rain amount and increasing the drought index by a drought factor. The KBDI scale and description of moisture conditions is as follows:

- **KBDI = 0-200:** Soil moisture and large class fuel moistures are high and do not contribute to fire intensity. Typical of spring dormant season following winter precipitation.
- **KBDI** = **200-400**: Typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.
- **KBDI** = **400-600:** Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.
- **KBDI** = **600-800**: Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downwind spotting can be expected. Live fuels can also be expected to burn actively at these levels.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.78	0.37	0.60	0.17	1.92

Evaluation Criteria	Description				
Historical Occurrence	Grass and Wildland fires can occur anywhere, especially when conditions are dry. Recent occurrences in Scott County include:  June 2005: Grass fire along Interstate 80 in Northern Davenport  March 2009: Grass fires occurred throughout Scott County. One of the largest fires occurred from burning leaves that spread to a nearby field that burned approximately 100 acres.  September 2010: Large grass fire in west Davenport.				
Probability	Grass and wildland fires will occur in areas where conditions are dry. There is a high probability that at least one will occur each year due to natural and human-caused events. Education about grass and wildland fires during prolonged periods may help with limiting human-caused events.				
Vulnerability	While wildfires have proven to be most destructive in the western states, they have become an increasingly frequent and damaging phenomenon nationwide. People choosing to live in wildland settings are more vulnerable to wildfires, and the value of exposed property is increasing at a faster rate than population. Iowa is less vulnerable to wildland fire because of the extremely large percentage of land that is developed. Grass fires are often more easily contained and extinguished before there is damage to people or developed property. Fires often burn large portions of field crops in the fall when the crops are dry and the harvesting equipment overheats or throws sparks. This can be quite costly to the farmer in terms of lost production. The Keetch-Byram Drought Index map graphic dated February 3, 2010 does not show a reporting weather station near Scott County. However, reporting weather stations around the middle of the State of Iowa and the surrounding areas of Minnesota, Wisconsin, Illinois, and Missouri all show a KBDI of less than 200, or minimal risk of wildfire hazard. Note that the KBDI will change seasonally. No official reports are available to estimate potential loss; however losses would include crops, livestock, and any structures near the fire.				
Location	Most grass fires are contained to highway right-of-way and rail right-of-way ditches and are less than a few acres in size. High winds can turn a small flame into a multi-acre grassfire within a matter of minutes. The extent is dependent upon conditions such as land use/land cover, moisture, and wind.				
Severity	<ul> <li>A. Health and safety of persons in affected areas: Injuries and deaths from fighting the fire most often occur by natural causes such as heart attack or stroke.</li> <li>B. Health and safety of response personnel: Minimal.</li> <li>C. Continuity of operations: Operations are not likely to be disrupted.</li> <li>D. Property, facilities, and infrastructure: Property damage is usually limited to grass, small trees, etc. Occasionally a house or outbuilding can be damaged or destroyed.</li> <li>E. Delivery of service: Insignificant effects.</li> <li>F. Environment: Environmental effects of grass and wildland fires do not deviate much from the burning of the grasses, crops, or other low land cover.</li> <li>G. Economic and financial conditions: The loss of crops could potentially lead to economic hardships within a community.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Grass fires occur frequently and have little impact on reputation.</li> </ul>				
Speed of Onset	As mentioned above, most grassfires occur without warning and travel at a moderate rate. The situation depends on conditions at the time such as moisture, wind, and land cover.				

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
U.S. Forest Service – WFAS (Wildland	http://www.wfas.net/index.php/keetch-byram-index-moisture	
Fire Assessment System)	drought-49	
Keetch-Byram Drought Index Map (KBDI)	http://www.fs.fed.us/land/wfas/kbdi.gif	

#### Hailstorm

**Definition:** An outgrowth of a severe thunderstorm in which balls or irregularly shaped lumps of ice greater than 0.75 inches in diameter fall with rain.

**Description:** Hail is produced by many strong thunderstorms. Strong rising currents of air within a storm carry water droplets to a height where freezing occurs. Ice particles grow in size until they are too heavy to be supported by the updraft. Hail can be smaller than a pea or as large as a softball and can be very destructive to plants and crops. Pets and livestock are particularly vulnerable to hail.

**Maximum Extent:** A scale of hailstorm intensity has been developed by the Tornado and Storm Research Organization (TORRO) of the United Kingdom. The scale extends from H0 to H10 with its increments of intensity and damage potential related to hail size (distribution and maximum). Hail texture, numbers, fall speed, speed of storm translation, and strength of the accompanying wind are other factors that affect the damage effects. The scale includes hail diameter size in both millimeters (mm) and inches (in) measurements.

Size	Diameter			
Code	mm	in	Description	Damage Impacts
Н0	5-9	0.2-0.4	Pea size	No damage
H1	5-15	0.2-0.8	Marble size	Makes holes in leaves
H2	10-20	0.2-1.2	Penny size	Strips leaves from plants
НЗ	20-30	0.4-1.8	Nickel size	Breaks glass and can scrape paint
H4	20-30	0.6-2.4	Golf ball size	Breaks windows and scrapes paint
H5	30-50	0.8-3.0	Tennis ball size	Breaks some roof tiles, dents cars, strips bark
Н6	40-60	1.2-3.9	Baseball size	Breaks many roof tiles, damages roofs
H7	50-75	1.8-4.9	Grapefruit size	Shatter roof tiles, serious damage to cars
Н8	60-90	2.4-5.0	Softball size	Cracks concrete roofs, splits trees, injury to people
Н9	75-100	3.2-5.0	Softball size	Marks concrete walls, kills people, falls trees
H10	>100	4.0-7.0	Melon size	Destroys wooden houses, damages brick homes, kills people

Hazard Score Calculation					
Probability Magnitude/Severity Warning Time Duration Weighted Score					
1.36	0.39	0.45	0.12	2.32	

Evaluation Criteria	Description
Historical Occurrence	The National Climatic Data Center (NCDC) reported 116 hail events in Scott County between 9/27/1959 and 08/05/2008 with hail size of at least 0.75 inches. More than one hail event may be recorded during one thunderstorm occurrence but as separate reports from differing times and locations. The largest reported hailstorm in Scott County during this time period is 7.00 inches in diameter occurring 9/27/1959. The table below shows the number of hail events by the size of hail. These events caused a reported \$290,000 in property damage and \$126,000 in crop damage.

Evaluation Criteria		1	Description	
				-
		Hail Size (inches)	Number of Events 1950 to 2009	
		0.75	41	1
		0.80	2	1
		0.88	17	
		1.00	26	
		1.25	1	_
		1.50	3	
		1.75	16	_
		2.00	5	_
		2.25	1	4
		2.75	2	-
		3.00 7.00	1	-
		Source: National Climatic Data	Center Storm Events Database	
	Notable events	provided by the NCDC a	re summarized below:	
		2000: A thunderstorm dro		
				d siding and damaged roofs
		s and damaged several veh		k Golf Course, northeast of
		rk. Numerous reports of h		
		eral inches deep. The acci		
		calling out of snow plows.		
Probability	that any given po	lity and frequency of occur oint in Iowa can expect on pears to support this average	average two to three hailst	
		os such as corn and soybea		
				ole damage to vehicles and
Vulnerability		only rarely results in the lo		
		wa Hazard Mitigation Plan	states that hail causes \$26	5,000 in damages annually
	in Scott County.			
Location		fected by individual hail ev		
		n average of 15 miles in dia		ths have been attributed to
				n be very dangerous and life
	threatening.	since 1700. Exposure to 1	ian iai ger than a meker ear	i be very dangerous and me
	_	safety of response personn	el: Risk to response perso	nnel is the same as the risk
		thout shelter from the hail.	1 1	
		of operations: Operations s		
Severity				ilities, and infrastructure is
50,01103		ted to broken windows and		
		services: Delivery of servi		
		be minor disruptions, but the ciated with hailstorms.	iis would likely come from	i ingii winds and fightning
		t: Hail can strip plants of	their leaves in very little ti	me. If this occurs at a
		in the life cycle of a plant,		
				billion annually in property

Evaluation Criteria	Description			
	and crop damage in the United States. The peak hail activity coincides with the Midwest's peak agricultural season. Financial effects resulting from damage to property is in the millions of dollars every year, much of which is covered by crop and hazard insurance.  H. Regulatory and contractual obligations: None known.  I. Reputation of the entity: Timely and adequate response to the event is key.			
Speed of Onset	Forecasting hailstorms, as with their parent thunderstorms, is becoming quite accurate due to the advancement in Doppler Radar and other technologies operated by the National Weather Service (NWS) and many television weather departments. Warnings in the 20 to 30 minute range are usually available prior to the occurrence of the storm.			

Sources				
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007			
National Climatic Data Center Storm Events Database	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms			
TORRO Hailstorm Intensity Scale	http://www.torro.org.uk/TORRO/severeweather/hailscale.php			
Storm Track Severe Weather Tables	http://www.stormtrack.org/library/edu/tables.htm			

### **Highway Transportation Incident**

**Definition:** A single or multi-vehicle incident that results in property damage and/or death(s)/injury(s).

**Description:** An extensive surface transportation network exists in Iowa. Local residents, travelers, business, and industries rely on this network on a daily basis. Thousands of trips per day are made on the streets, roads, highways, and interstates in the state. If the designed capacity of the roadway is exceeded, the potential for a major highway incident increases. Weather conditions play a major factor in the ability of traffic to flow safely in and through the state as does the time of day (rush hour) and day of week. Incidents involving buses and other high-occupancy vehicles could trigger a response that exceeds the normal day-to-day capabilities of response agencies.

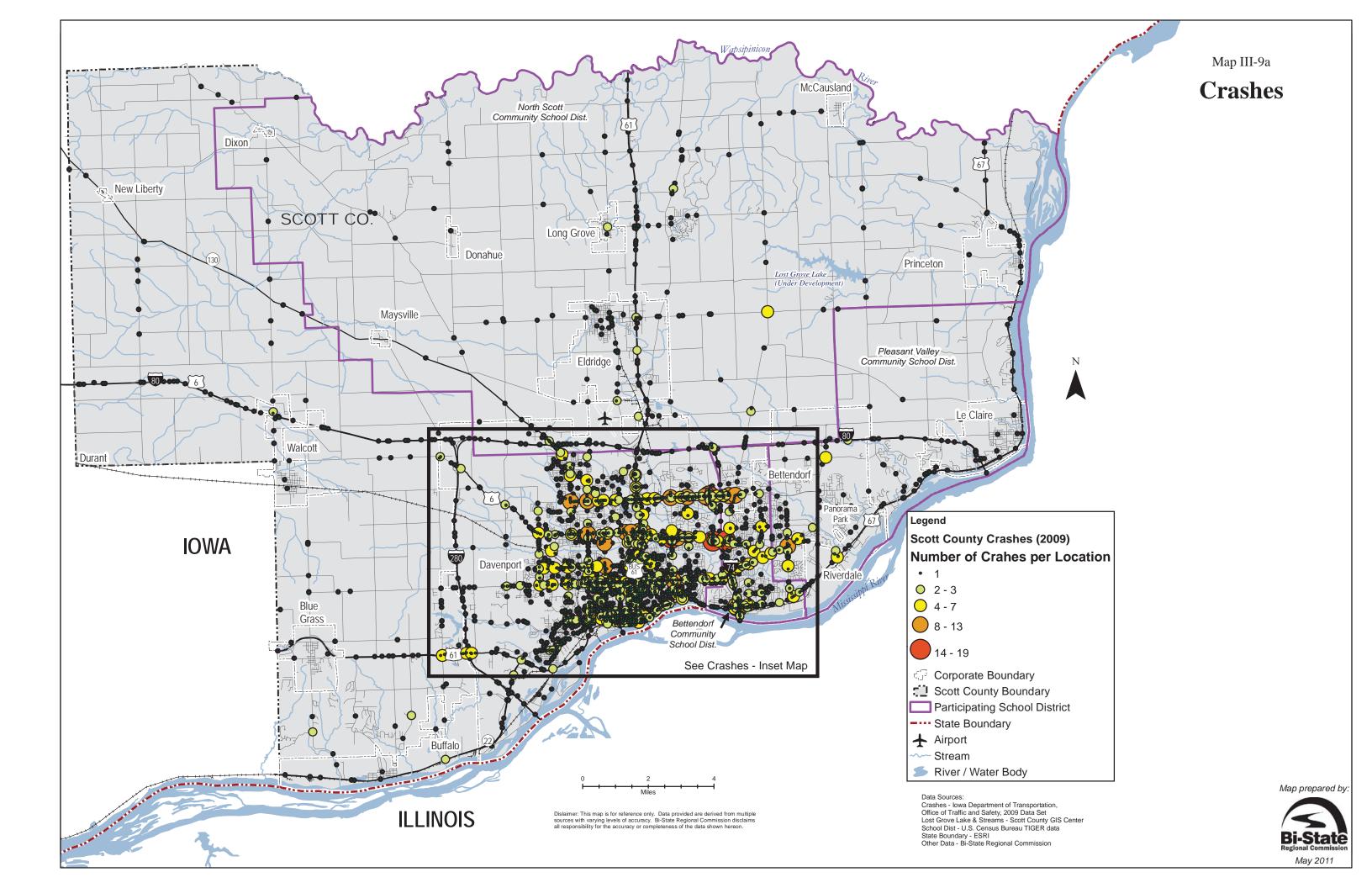
**Maximum Extent:** Highway incidents are usually contained to areas on the roadway or directly adjacent to the roadway. Very few highway incidents affect areas outside the traveled portion of the road and the right-of-way. Extensive segments of the transportation system can be affected during significant weather events, such as a large snowstorm, where multiple separate accidents occur. The area of impact can extend beyond the localized area if the vehicle(s) involved are transporting hazardous materials.

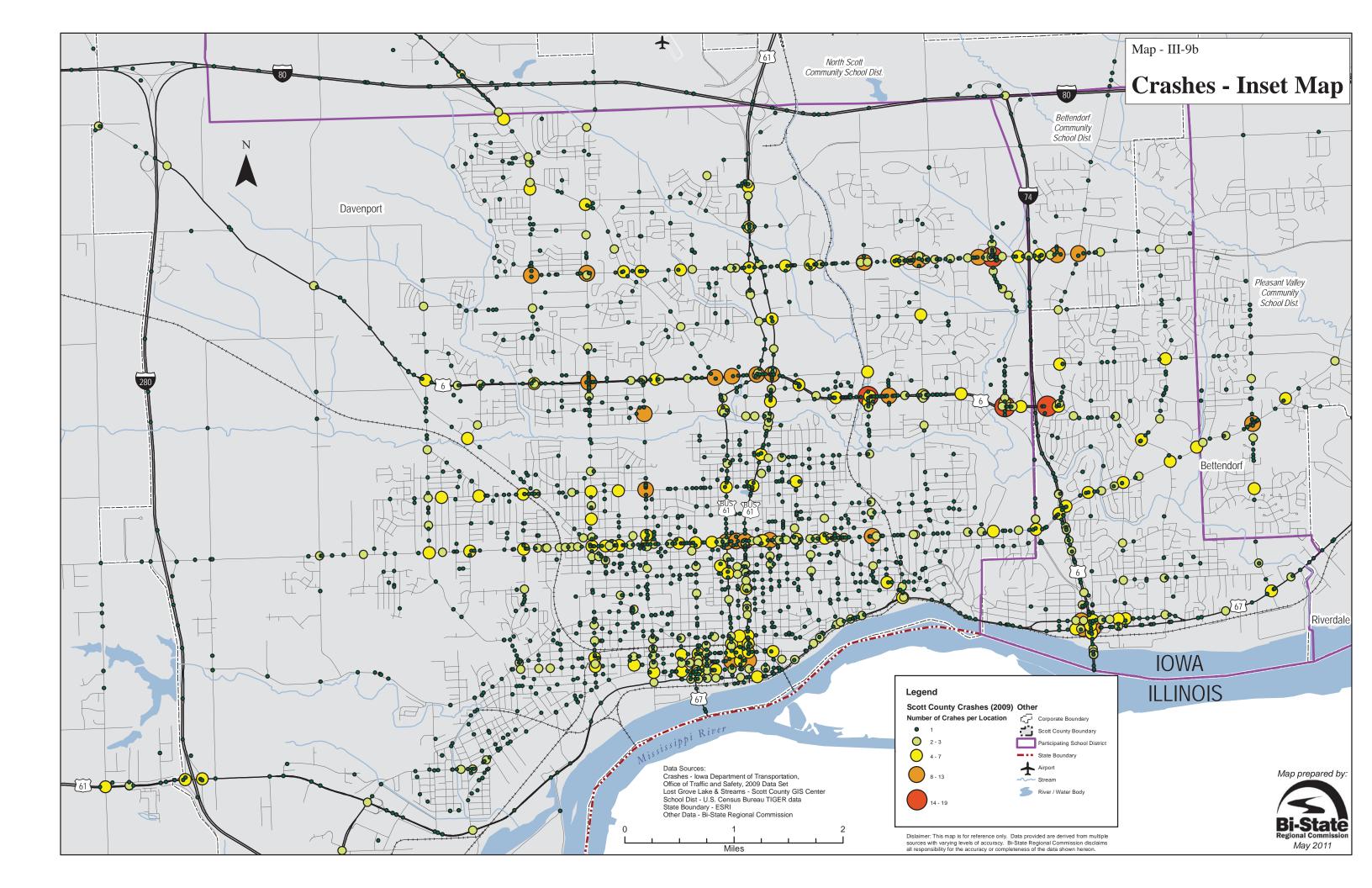
Hazard Score Calculation					
Probability Magnitude/Severity Warning Time Duration Weighted Score					
1.47	0.32	0.60	0.19	2.58	

Evaluation Criteria	Description
Historical Occurrence	Numerous major and minor traffic accidents occur each year in Scott County and result in property damage and/or death(s)/injury(s). Major accidents involving multiple vehicles and serious injury unfortunately are not uncommon. In 2009, there were a total of 3,962 traffic accidents, resulting in a total number of 1,603 injuries. Of those injuries there were 97 major injuries, 476 minor injuries, 1,040 possible and/or unknown injuries. There were 14 fatalities. Speed was the most frequent factor in injuries and deaths from accidents.
Probability	Although traffic engineering, inspection of traffic facilities, land use management of areas adjacent to roads and highways, and the readiness of local response agencies have increased, highway incidents continue to occur. As the volume of traffic on the county streets, highways, and interstates increases, the number of traffic accidents will likely also increase. The combination of large numbers of people on the road, wildlife, unpredictable weather conditions, potential mechanical problems, and human error always leaves the potential for a transportation accident highly likely.
Vulnerability	Those who use the surface transportation system are most vulnerable. Travelers, truckers, delivery personnel, and commuters are at risk at all times they are on the road. During rush hours and holidays, the number of people on the road in Scott County is significantly higher. This is also true before major gatherings such as sporting events, concerts, and conventions. Pedestrians and citizens of the community are less vulnerable but still not immune from the effects of a highway incident. A November 2011 report prepared by Cambridge Systematics for AAA stated that the annual cost of crashes per person in cities under 500,000 is \$1,778.

Evaluation Criteria		Description							
	A highway transportation incident can happen on any road in Scott County or in adjacent property. As shown in Map III-9a and Map III-9b, U.S. HWY 61, U.S. 6, U.S. 67, I-74, and I-80 were common roads where incidents occurred. Incidents are more likely to occur in areas with denser population, more roads, and increased transportation. As seen in Map III-9b, a large proportion of incidents happened within Davenport and Bettendorf. The table below breaks down the number of incidents by jurisdiction and severity.								
	Place	Crashes	Fatalities	Injuries	Major Injuries	Minor Injuries	Possible Injuries	Unknown Injuries	
	Unincorporated Scott Co.	338	4	112	12	37	62	1	
Location	Bettendorf	544	1	233	9	85	139	0	4
Location	Blue Grass	4	0	4	1	2	1	0	4
	Buffalo	11	0	5	1	0	4	0	4
	Davenport	2960	6	1223	73	341	774	35	4
	Donahue	1	0	0	0	0	0	0	-
	Eldridge LeClaire	54 21	3	14 5	0	5 2	7 2	0	4
	Long Grove	3	0	0	0	0	0	0	-
	Princeton	5	0	2	0	1	1	0	1
	Riverdale	9	0	2	0	1	1	0	1
	Walcott	12	0	3	0	2	1	0	1
					rate Limits u	sing ArcMap	(GIS).		
Severity	A. Health and safety of persons in affected areas: Highway incidents threaten the health and lives of people in the vehicles, pedestrians, and citizens of the community if hazardous materials are involved. Mass causality events can occur if mass transit vehicles are involved. Community bus lines, metro transit buses, and school buses have a good safety record, but accidents can and do still occur. Numerous injuries are a very real possibility in situations involving mass transit vehicles.  B. Health and safety of response personnel: Response personnel are certainly not immune to traffic accidents. Because of the number of hours that law enforcement are on the road, they have a higher risk than do other response personnel.  C. Continuity of operations: No significant impact  D. Property, facilities, and infrastructure: Property damage would be limited to vehicles and cargo involved; roads, bridges, and other infrastructure; utilities such as light and power poles; and third-party property adjacent to the accident scene such as buildings and yards.  E. Delivery of services: No significant effects. There may be short-term localized effects if utility poles are affected.  F. Environment: Fuel and other fluids can be spilled from the affected vehicles and affect the environment. If hazardous material hauling vehicles are involved, the impact could be much greater. Thousands of gallons or pounds of product can be released to the environment if the container is damaged.  G. Economic and financial conditions: No significant impact other than business disruption of those in the affected area.  H. Regulatory and contractual obligations: None known.  I. Reputation of the entity: Unfortunately, these incidents occur very frequently and are not a								
Speed of Onset	significant impa There is usually no v that may impede tra hazardous travel cor	warning of vel, travele	highway ir	ncidents. I	During sno				ents

Sources				
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007			
City of Davenport	Pre-Disaster Mitigation Plan, February 2007			
Iowa Department of Transportation	http://www.dot.state.ia.us/sitemap.htm#safety			
National Transportation Safety Board	http://www.ntsb.gov			
National Highway Traffic Safety Administration	http://www.nhtsa.dot.gov			
Iowa Department of Public Safety	http://www.state.ia.us/government/dps/isp/			
AAA Crashes vs. Congestion Report	http://www.camsys.com/pubs/2011_AAA_CrashvCongUpd.pdf			
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters/shtml			
The Disaster Center	http://www.disastercenter.com			





# **Human Disease** Incident

**Definition:** A medical, health, or sanitation threat to the general public (such as contamination, epidemics, plagues, and insect infestation).

**Description:** Public health action to control infectious diseases in the 21st century is based on the 19th century discovery of microorganisms as the cause of many serious diseases (e.g. cholera and Tuberculosis). Disease control has resulted from improvements in sanitation and hygiene, the discovery of antibiotics, and the implementation of universal childhood vaccination programs. Scientific and technologic advances have played a major role in each of these areas and are the foundation for disease surveillance and control systems today. Scientific findings also have contributed to a new understanding of the evolving relation between humans and microbes. As of January 1, 2000, a total of 60 infectious diseases were designated as notifiable at the national level. A notifiable disease is one for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease.

**Maximum Extent:** Because of our highly mobile society, these diseases can move rapidly across the state and across the nation within days, weeks, or months.

Hazard Score Calculation				
Probability Magnitude/Severity		Warning Time	Duration	Weighted Score
0.54	0.59	0.34	0.39	1.85

Evaluation Criteria	Description				
Historical Occurrence	transm menin virus, clothin Depar mosqu of We blackle The be keepin spring not ha disease progra Scott ( Norivi	gitis or encephalithe best way to program and avoid high the the best way to program and avoid high the the the best way to program and since 200 egged ticks. Synest way to preven any sards cleaned and summer. So we a Lyme disease on ticks that haum. The table bell County. Scott County.	County include West Nile V West Nile virus is transmitted itis in some individuals. Thereforevent contracting West Nile the mosquito activity hours (date on including the second of the	re is no vaccination available is to use insect repellent, were awn and dusk). The Scott Considerity to monitor and test is Scott County has not had a contract the bacterium transmitted by ide fever, headache, fatigue, a cott repellent, remove ticks profitisk of human infection is the of Lyme disease per year. So Iowa State University who to The county does not run or perfect the state of the	d can cause for West Nile ar long sleeve anty Health for infected onfirmed case infected and skin rash. mptly, and greatest in late out County does ests for Lyme pay for this imperates and the
		Year	West Nile Virus Confirmed Cases	Lyme Disease Confirmed Cases	
		2000	n/a	0	
		2001	0	3	
		2002	3	7	
		2003	2	8	

Evaluation Criteria	Description					
		Year	West Nile Virus	Lyme Disease		
			Confirmed Cases	Confirmed Cases		
		2004	0	6		
		2005	1	3		
		2006	0	5		
		2007	0	9		
		2008	0	11		
	Public		Ţ.	infectious diseases and prese	rve the health	
Probability						
Trobubling	and safety of Iowans through disease surveillance, investigation of suspect outbreaks, education, and consultation to county, local, and public health agencies.					
				ct of communicable diseases	in Iowa and to	
				es. Programs guide commun		
				ase trends, prevent transmiss		
Vulnerability	diseas	es, provide early	detection and treatment for in	nfected persons, and ensure a	ccess to health	
v unier ability				able for many diseases, Iowar		
				The 2010 State of Iowa Hazar		
				West Nile Virus. This does	not include the	
			y other forms of human disea			
				unty, it is not isolated to a par		
Location	Infected insects can be everywhere. Ideal conditions for those insects to be can be reduced by					
	taking the proper precautions (i.e. application of insect repellant) resulting in reducing chances of an infection.					
			of nersons in affected areas:	Many of the diseases on the	national	
		A. <i>Health and safety of persons in affected areas:</i> Many of the diseases on the national notification list result in serious illness if not death. Some are treatable; however only the				
	symptoms of other diseases are treatable.					
	B. <i>Health and safety of response personnel:</i> Doctors, nurses, paramedics, and emergency					
	medical technicians are vulnerable to contagious diseases. Universal precautions can greatly					
	di	diminish the transfer rate and risk to responders to human disease.				
		C. Continuity of operations: Minor.				
Severity			, and infrastructure: None.			
Severing			s: Limited impact on critical	services. Healthcare service	es may be at the	
		mits of capacity.	4:			
	F. Environment: No direct impact.					
	G. Economic and financial conditions: No direct impact, but large outbreaks may warrant travel and advisories to the area and will affect tourism and general commerce in the area.					
	H. Regulatory and contractual obligations: None known.					
	I. Reputation of the entity: Adequate disease prevention programs and response to the					
outbreak can limit the damage to the jurisdiction's reputation.						
	The private practitioner is the first line of defense and will undoubtedly be the first to witness					
	symptoms of human disease incidents. The Scott County Health Department, Iowa Department					
Speed of Onset	of Public Health and the Centers for Disease Control (CDC) monitors reports submitted by					
Specu of Offset	doctors, hospitals, and labs to identify patterns. The Scott County Health Department, Iowa Department of Public Health, and CDC are proactive in providing information to the health care					
				e in providing information to	the health care	
	comm	unity on medical	concerns.			

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
Center for Disease Control	www.cdc.gov	
U.S. Geological Survey	http://diseasemaps.usgs.gov/wnv ia human.html	
Local Sources	Scott County Health Department	

# **Human Disease Pandemic**

**Definition:** A pandemic disease is defined as a disease that has spread around the world to many people.

**Description:** Pandemic refers to a microbe that has the ability to spread across the world. The word "pandemic" means that a disease has caused illness in a person on nearly every continent. Many diseases throughout the history of the world have been pandemics. Examples are HIV/AIDS, and Influenza/H1N1. A pandemic disease will have wide spread economic and societal implications for Scott County. Response and recovery to a pandemic disease will likely be lengthy.

**Maximum Extent:** Because of our highly mobile society, diseases can move rapidly across the county, state, and nation within days, weeks, or months.

Hazard Score Calculation				
Probability Magnitude/Severity		Warning Time	Duration	Weighted Score
0.46	0.89	0.15	0.39	1.90

Evaluation Criteria	Description		
Historical Occurrence	Pandemics of influenza have occurred three times about every 100 years. From 1900-2000, there were three influenza pandemics, all about 30 years apart. Reports of a new strain of influenza, known as H1N1, were first reported in April of 2009. While individual cases were not tracked in Scott County, there has been one known death from H1N1 within Scott County.  AIDS has been a reportable disease in Iowa since 1983. Diagnoses of AIDS peaked in 1992 coinciding with the change in the definition of AIDS. The advent of highly active antiretroviral therapy sparked a dramatic decline in diagnoses of AIDS from 1995 – 1998. After reaching a low in 1998, the number of diagnosed AIDS cases increased to an annual average of 77 cases through 2005. Deaths of persons with HIV/AIDS declined from 1995 until 1998, when 17 deaths were reported. The number of deaths rebounded somewhat after 1998 but peaked in 2002 at 34. This rebound may indicate that while HAART therapy was initially effective for some people, it may have only delayed death for a period of time for those who were late in the course of the disease.  The reporting of HIV-infected persons began in 1998. HIV diagnoses in Iowa averaged 102 annually for the 10 years from 1997 to 2007. There were 128 diagnoses in 2007, the most since HIV reporting began. On December 31, 2007, 1,522 Iowans are reported to be living with HIV or AIDS. The Iowa Department of Public Health estimates that another 566 persons are infected but have not yet been diagnosed. This estimation is based in part on estimates from the Centers for Disease Control (CDC) that as many as 25% of persons who are infected with HIV may be undiagnosed. According to the Iowa Department of Public Health, 157 people in Scott County are living with HIV or AIDS as of the end of 2007.		
Probability	Public health agencies work to protect Iowans from infectious diseases and preserve the health and safety of Iowans through disease surveillance, investigation of suspect outbreaks, education, and consultation to county, local, and public/private agencies. Historically influenza pandemics occur every 30 years, and since H1N1 is the most recent influenza pandemic, another flu pandemic is not likely to occur in the near future. There has been an upward trend in HIV infection diagnoses in recent years. The 128 HIV infection diagnoses in 2007 equate to 4.3 per 100,000 people. This is 14% increase from 2006 numbers. Males accounted for 84% of new diagnoses in 2007. New diagnoses between the ages of 25 and 44 were 59%; however the number of diagnoses of those 45 years old and older has more than doubled since 2003. In 2007 86% of HIV diagnoses were from U.Sborn persons compared to only 70% in 2003. The		

Evaluation Criteria	Description		
	number of white, non-Hispanic persons diagnosed with HIV has doubled from 2003 to 2007.		
Vulnerability	Influenza (flu) happens every year in nearly every country in the world. It spreads through a population for a few months and then will disappear or will move on to another country. Influenza usually occurs in the fall and winter months. Typically people who usually become ill are the elderly, the very young, those with chronic medical conditions, and those with high risk behaviors. The individuals that travel internationally and have high exposure to potential vectors of disease are the most susceptible. Greater than 20% of Iowa's population is considered at risk. CDC's HIV Prevention Progress in the US Fact Sheet from July 2010 states that the US federal government spent an estimated \$12.3 billion on HIV care and treatment in 2009. For every HIV infection that is prevented, an estimated \$355,00 is saved in the cost of providing lifetime HIV treatment.		
Location	The entirety of Scott County is susceptible to a human pandemic disease.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: Historically pandemics result in serious illness if not death. Some are treatable while only the symptoms of some diseases can be treated.</li> <li>B. Health and safety of response personnel: Doctors, nurses, paramedics, and emergency medical technicians are vulnerable to contagious diseases. Universal precautions can greatly diminish the transfer rate and risk to responders to human disease.</li> <li>C. Continuity of operations: Potential for severe or complete disruption.</li> <li>D. Property, facilities, and infrastructure: None.</li> <li>E. Delivery of services: Healthcare and essential services infrastructure and human resource personnel infrastructure would be affected.</li> <li>F. Environment: Potential impact to essential environmental service personnel.</li> <li>G. Economic and financial conditions: Large outbreaks may warrant travel advisories to the area and will affect the tourism and general commerce on the area. High number of ill human resources across the board.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: None known.</li> </ul>		
Speed of Onset	If the disease is highly infectious by the time it is discovered, it will likely have already spread across the state or nation. This will put the people of Scott County at a severe disadvantage during response recovery.		

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
Center for Disease Control	http://www.cdc.gov/ http://www.cdc.gov/hiv/resources/factsheets/PDF/cdcprev.pdf	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	
Iowa Department of Public Health	http://www.idph.state.ia.us/	
Pandemic Flu	http://www.pandemicflu.gov/	

## Landslide

**Definition:** Landslide is a general term for a wide variety of downslope movements of earth materials that result in the perceptible downward and outward movement of soil, rock, and vegetation under the influence of gravity.

**Description:** Landslides can occur when susceptible rock, earth, or debris moves down slope under the force of gravity and water. Landslides may be very small or very large, and can move at slow to very high speeds. New landslides can be a result of rainstorms, fires, earthquakes, and various human activities that modify slope and drainage. This information is reiterated by Unity States Geological Survey (USGS), which typically sees most landslides as the result of human interaction – such as slopes cut away for roads or for land development. Additional slope disturbance can be caused by creek, stream, and river currents removing material, and floods that can increase soil water pressure, reducing slope strength.

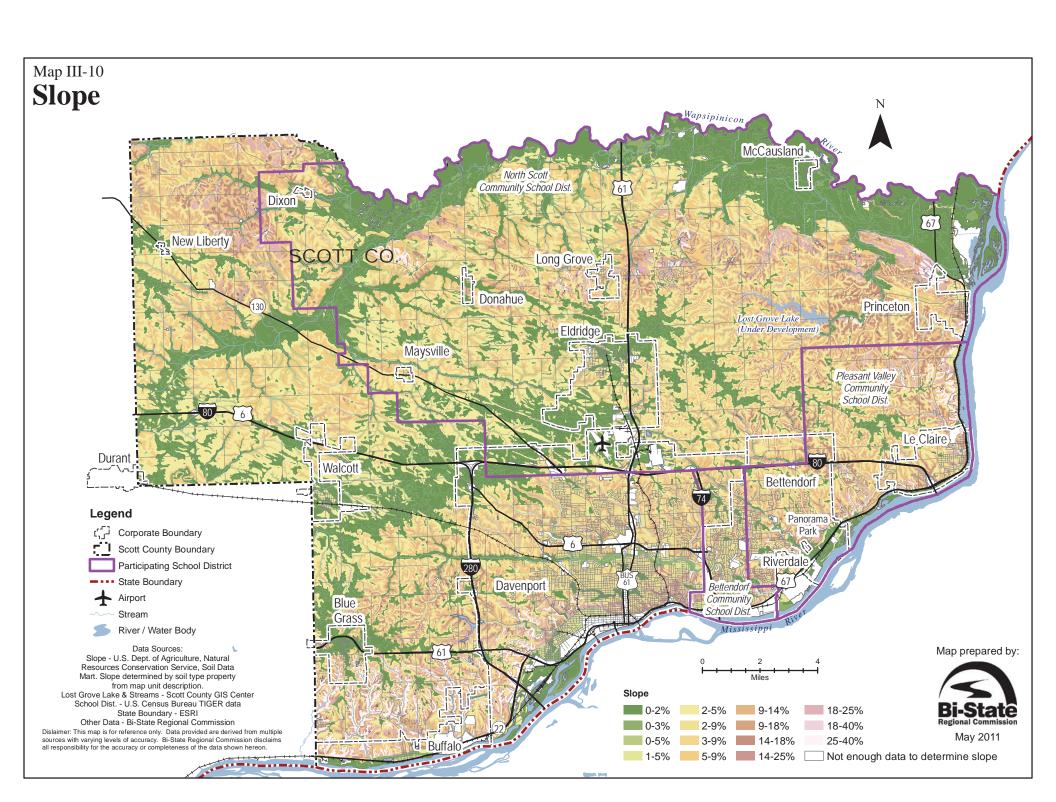
**Maximum Extent:** The geographic extent of the historic events has been limited to less than a city block in size and has "run out" over the stretch of less than 100 yards.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.45	0.30	0.48	0.30	1.54

Evaluation Criteria	Description
Historical Occurrence	A natural phenomenon, small-scale landslides have been occurring in slide-prone areas of Scott County long before human occupation. Saturated soils and Pennsylvanian shale is mentioned repeatedly by R. C. Anderson, (1980) as the underlying cause of most slumping in the area.
Probability	A portion of Iowa is moderately susceptible to landslides. In the hilly terrain of central Iowa, areas of Pennsylvanian shale are susceptible to slides where overlain by loess or till. The most susceptible areas are found along the adjacent steep terrain associated with the major river valleys such as the Mississippi. Scott County has many large areas of very hilly terrain with slopes exceeding 18%. Scott County is bordered by both the Mississippi and Wapsipinicon Rivers. Both rivers have steep bluffs susceptible to landslides. Because of this, the probability of a landslide occurring somewhere in the county is higher than the rest of the state as a whole. The study of the slopes and outcrops along Duck Creek in Bettendorf in 2008 showed that hill slope instability was not an issue at the time along that portion of the Creek. No clay was found, nor were there any signs of hummocky topography or ponded water. However, future building should not occur on the slopes adjacent to the creek to guard against any future slope degeneration. (Ford, 2008)
Vulnerability	Those occupying structures overlooking river valleys and steep ravines are most vulnerable. Many homes and commercial businesses are located on the Mississippi River bluffs in Scott County. Homes and businesses in Princeton, LeClaire, Pleasant Valley area, Bettendorf, Davenport, and homes on the bluffs above Buffalo all have a level of increased vulnerability. Construction can be a key factor in tipping the balance of slope stability. By building above unstable areas, humans create areas that exceed the bearing strength of the slope (the weight limit a slope can bear before failing). Building on these slopes can increase the saturation of unstable materials through runoff, leaky pipes, lawn wetting, and septic systems. (Anderson, 1980). No information on damages caused by landslides is available at this time, so estimating potential losses is difficult.
Location	The steep hillsides adjoining the Mississippi and Wasipinicon Rivers and along the Duck Creek are all prone to landslides or slumping. As shown in Map III-10, areas with higher slopes can be found near the rivers and creeks within Scott County. Two recent occurrences were in the 2500

Evaluation Criteria	Description		
	block of Middle Road in June 2008 and in March 2009 along the Prospect Terrace Hillside along River Drive both in Davenport. Both landslides occurred in years with excessive amounts of rainfall.		
Severity	<ul> <li>A. Health and safety of persons in affected area: Very limited. Injuries and deaths are very unlikely except in the case of undetected slope failure warning signs in structures overlooking steep slopes.</li> <li>B. Health and safety of response person: Limited if any.</li> <li>C. Continuity of operations: None</li> <li>D. Property, facilities, and infrastructure: Property would be limited to a very small percentage of structures. Infrastructure damages would be more significant. Utilities such as pipelines, cables, power poles, etc. are often vulnerable to downward movements of the soil.</li> <li>E. Delivery of services: Delivery of services would be limited to only those services whose infrastructure was affected. For example, there may be minor power outages or water disruptions if a landslide shifts or destroys underground utilities.</li> <li>F. Environment: Usually a naturally occurring event. In Iowa, these would be on a localized scale. Slides may lead to increased soil erosion; siltation of streams; temporary blockage of stream drainages; and loss of valuable watershed, grazing, and forest lands.</li> <li>G. Economic and financial conditions: Landslides have damaged homes and disrupted electricity, water service, communications, and transportation routes. Economic effects would be secondarily associated with landslides.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Occurrences would be very rare and would not have significant impact on the reputation of the jurisdiction. Landslides have damaged homes and disrupted electricity, water service, communications, and transportation routes. Injuries and deaths are very unlikely except in the case of undetected slope failure warning signs in structures overlooking steep slopes.</li> </ul>		
Speed of Onset	Landslides can be very slow or they can be very sudden. Landslides are often involved in or triggered by other natural hazards. Landslides and flooding are often related because precipitation, runoff, and ground saturation combine to destabilize soil and rock. For this reason, landslides can be detected if high potential landslide areas are monitored. Landslides due to broken water pipes or altered water drainage can occur very suddenly.		

Sources		
United States Geological Survey Landslide	http://landslides.usgs.gov/	
Hazards Program		
United States Geological Survey Fact Sheet	http://pubs.usgs.gov/fs/2004/3072/	
2004-3072	<u> </u>	
USGS Circular 1244 – National Landslide		
Hazards Mitigation Strategy— A Framework	http://pubs.usgs.gov/circ/c1244/c1244.pdf	
for Loss Reduction		
American Red Cross	http://www.redcross.org/services/disaster/keepsafe/landslide.html	
Federal Emergency Management Agency	http://www.fema.gov/hazards/landslides/landslif.shtm	
Anderson, R. C., 1980, Geology for Planning		
Rock Island County, Illinois: Illinois State	http://library.isgs.uiuc.edu/Pubs/pdfs/circulars/c510.pdf	
Geological Survey, Circular 510		
Ford, E., 2008, Mapping Bedrock and	Service Cools on the sig for Average College Dock Island	
Landslide Susceptibility along Duck Creek in	Senior Geology thesis for Augustana College, Rock Island, Illinois	
Bettendorf, Iowa	Ittinois	
The Disaster Center	http://www.disastercenter.com	
Quad City Times newspaper		
The State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	



#### Levee Failure

**Definition:** Loss of structural integrity of a wall, dike, berm, or elevated soil by erosion, piping, saturation, or under seepage causing water to inundate normally dry areas.

**Description:** Levees constructed of compacted clay with high plasticity tend to crack during cycles of long dry spells. During heavy rainfalls that follow the dry spells, water fills the cracks and fissures. In addition to increasing the hydrostatic forces, the water is slowly absorbed by the clay. The effect of the absorbed water is an increase in the unit weight of the clay as well as a decrease in its shear strength. This results in a simultaneous increase of the slide (driving) forces and a decrease of the resisting (shear strength) forces. Furthermore, the cyclic shrink/swell behavior of the cracked clay zone results in a progressive reduction of the shear strength of the clay, perhaps approaching its residual strength. It also results in deepening of the cracked clay zone, which may eventually reach a depth of 9 feet (2.74 meters) or more, especially for clays with a plasticity index greater than 40. The end result may be a sloughing failure following a heavy rainfall. It is believed that fast removal of the runoff water from the interconnected network of cracks could alleviate this surface instability problem.

**Maximum Extent:** Floodwaters breaching a levee are usually contained in the historic floodplain.

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Score				
0.45	0.43	0.25	0.31	1.45

Evaluation Criteria	Description
Historical Occurrence	It is difficult to assess the historical occurrence of levee failure as most structures of these types are not constructed by federal or state entities. The Department of Natural Resources does not keep records of levees and levee failure. There are many levees located throughout the county in subdivision and agricultural water retention structures.
Probability	The rate of failure of a levee or floodwall is difficult to predict with sudden failure a possibility. Proper design and construction can limit the probability of a levee failure. Development in the watershed can raise flood levels and make a levee designed and constructed under previous characteristics inadequate for current runoff conditions.
Vulnerability	People, property, and utilities in the floodplain are most at risk. Levees and floodwalls give a false sense of security, only temporarily containing the hazard. Information related to the property value and structures affected by a levee failure are available in the Estimating Potential Loss section of this Chapter.
Location	Any location near a levee may be vulnerable to flooding due to failure, depending on the nature of the levee and its capacity. Levee failure in one area may also prevent flooding in another area. Reference Map III-3 <i>Dams and Levees</i> for more information.
Severity	<ul> <li>A. Health and safety of persons in affected area: Impact on safety of persons can range from limited to critical. Sudden failure in an urban setting could cause catastrophe.</li> <li>B. Health and safety of response personnel: See floods and flash floods.</li> <li>C. Continuity of operations: No significant effects to continuity of operations would be expected unless critical facilities or services are affected by the floodwaters themselves.</li> <li>D. Property, facilities, and infrastructure: Damage to property may be critical. Water bursting through a narrow levee breach is moving much faster than the floodwaters in the main channel. The breaking out of this front of water and its fast flow can cause more destruction to structures behind the levee than floodwaters in the main channel would have caused. A</li> </ul>

Evaluation Criteria	Description
	<ul> <li>failed levee continues to cause damage long after it breaks.</li> <li>E. Delivery of services: Impact to services may be limited to critical. Services in and near the floodplain may be affected, but the waters from the levee break will most likely stay within the original floodplain.</li> <li>F. Environment: Effects on the environment should be limited. The breach allows large volumes of water to enter formerly dry areas, possibly forming temporary lakes. Such lakes do not go away immediately. Consequently, the water level drops along the main channel days before it drops behind breached levees. Often pumps behind the levees are needed to remove floodwaters.</li> <li>G. Economic and financial conditions: Effects are limited to critical. Sudden failure in an urban setting may cause significant damage.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Effects could be critical. Residents behind levees often have a false sense of security. If the actual risk is not communicated to the residents by the responsible entity, there may be effects to the reputation of the entity and community if the</li> </ul>
Speed of Onset	levee fails. Effects would be similar to those experiences during a river or flash flood event.  The amount of warning time depends on the type of levee failure. Local flood warning systems can help determine the maximum water surface and the timing of a flood situation. Hours or days of warning may be available for high water that may overtop levees, but this does not provide complete security from a rupture in the levee itself. A sudden failure of a portion of the levee may send floodwaters gushing from the break within seconds. Normally, occupants of the floodplain can be warned about potential levee breaches and/or breaks when high water encroaches upon the levee.

Sources		
The State of Iowa, IHSEMD  Iowa Hazard Mitigation Plan, 2007		
Iowa Department of Natural Resources	Communication with Dave Allen	
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms	

# Pipeline Transportation Incident

**Definition:** An incident is a break in a pipeline creating a potential for an explosion or leak of a dangerous substance (oil, gas, etc.) possibly requiring evacuation.

**Description:** Scott County is served by many high pressure pipelines to residents and industries as well as several cross-country pipelines. An underground pipeline incident can be caused by environmental disruption, accidental damage, or sabotage. Incidents can range from a small slow leak that is not ignited to a large rupture in which the gas is ignited. Inspection and maintenance of the pipeline system along with marked gas line locations and an early warning and response procedure can lessen the risk to those in proximity to the pipelines. Sixty-four percent of pipeline miles in Iowa are used to transport natural gas. Transport of refined products, highly volatile liquid, anhydrous ammonia, natural gas liquids, crude oil, and nitrogen in that order make up the rest of the pipeline miles.

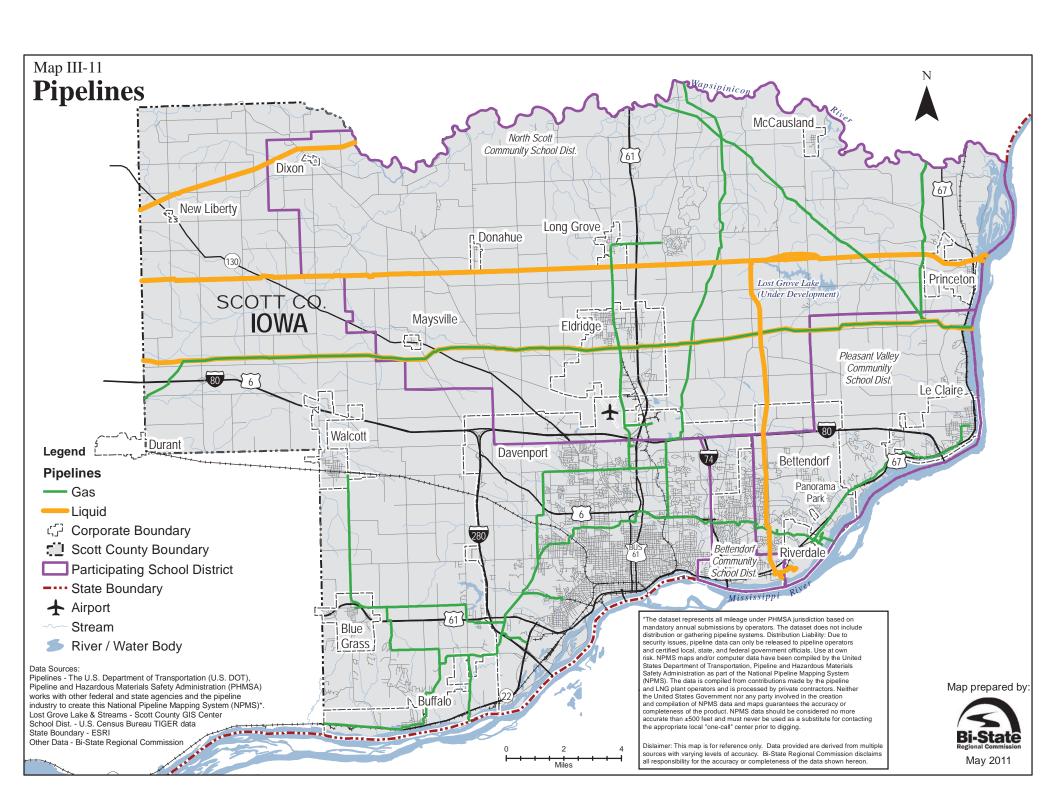
**Maximum Extent:** Though often overlooked, petroleum and natural gas pipelines pose a real threat in the community. Scott County has 137 miles of pipeline carrying gas and 127 miles of pipeline carrying liquid as of 2008 annual reports. This is the 5th highest percentage of pipeline miles per county in the State of Iowa. Most incidents affect only the area directly above or near the damaged pipeline. Depending on the size of the pipeline and the amount of product released, the extent of the impact could be several hundred feet in diameter. Large areas may need to be evacuated to remove people from the threat of fire, explosion, or exposure. Pipelines have automatic shutoff valves installed so that damaged sections can be isolated and the volume of product escaping can be limited. Identification and caution signs are posted wherever pipelines are located.

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Score				
0.46	0.52	0.60	0.21	1.79

Evaluation Criteria	Description
Historical Occurrence	According to the Iowa Utilities Board, 186 pipeline accidents, incidents, or service outages were reported between 2000 and 2005, resulting in a total of 29 injuries and 6 fatalities in Iowa. Small incidents have occurred several times per year in Scott County and usually involve construction crews hitting natural gas lines. Only one significant instance was reported in Scott County during 2000 - 2009. This occurred in Davenport on December 2, 2004 when 52 barrels of hazardous liquid were lost, and the damage was \$3,713.
Probability	The vast majority of pipeline incidents that occur are caused by third-party damage to the pipeline, often due to construction or some other activity that involves trenching or digging operations. With development occurring at an unprecedented rate and the ground becoming more and more congested with utilities, the probability of an underground pipeline incident is highly likely. Petroleum and natural gas pipeline accidents occur with some regularity, but they usually have a limited impact and are quickly and adequately handled by pipeline company emergency crews and local and state responders. Pipeline operators are required to coordinate all safety preparedness and response activities with the communities. The planning, training, and exercising of emergency procedures with all involved parties helps to limit the occurrence and severity of incidents.  Operator compliance with state and federal pipeline safety regulations is monitored through the Iowa Enforcement Program. The program is comprised of field inspections of operations,

Evaluation Criteria	Description		
	maintenance, and construction activities; programmatic inspections of operator procedures, processes, and records; incident investigations and corrective actions; and direct dialogue with operator management. The agency or agencies work in partnership with the Federal Pipeline and Hazardous Materials Safety Administration (PHMSA) to assure pipeline operators are meeting requirements for safe, reliable, and environmentally sound operation of their facilities.		
Vulnerability	About 5 interstate pipelines operate in the state under federal pipeline jurisdiction. There are many high-pressure gas mains throughout the county that supply residential and industrial users. People and property with pipelines on their land or nearby are the most at risk. People excavating earth near a pipeline are also at risk. Whether the greater hazard is posed to those upwind or downwind from a site depends on the product spilled, for example: natural gas is lighter than air. Private homes and business served by natural gas have smaller diameter pipelines connected to their structure. The underground pipelines cross public streets, roads, and highways as well as streams. Iowa's natural environment is also vulnerable to contamination from an underground pipeline incident. The average cost per pipeline incident is \$3,713, according to		
Location	An incident could occur where ever pipelines are located in the county. Reference Map III-11 <i>Pipelines</i> for more information.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: All petroleum liquids pose dangers from fire or explosion, and the fire may produce poisonous or irritating gases. Toxic fumes and direct contact can cause health hazards. Vapor clouds can travel a distance and settle in low-lying areas where the fumes may overcome people and animals. Released products should be treated as any other hazardous material. Large areas may need to be evacuated to remove people from the threat of fire, explosion, or exposure.</li> <li>B. Health and safety of response personnel: Specialized training is required to work around the pipeline because of hazardous materials, potential high pressure liquids and gases, and trench rescue techniques.</li> <li>C. Continuity of operations: Services that depend on the product moving through the pipeline may be affected if they do not have an auxiliary source.</li> <li>D. Property, facilities, and infrastructure: Petroleum and natural gas pipelines can leak or erupt and cause property damage, environmental contamination, injuries, and even loss of life. Accidents may be caused by internal or external corrosion, defective welds, incorrect operation, outside damage, or other defective pipeline or equipment. The explosion can damage adjacent properties.</li> <li>E. Delivery of services: A break in water pipelines may affect fire protection. Petroleum products will not be delivered or will be delivered in limited quantity.</li> <li>F. Environment: Effects to the area result from saturating the soil with hazardous materials and/or causing rapid erosion.</li> <li>G. Economic and financial conditions: These evacuations potentially save lives and limit injury, but they also disrupt businesses and inconvenience residents.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: A well informed public before, during, and after an incident will greatly reduce the impact to the jurisdiction's reputation.</li> </ul>		
Speed of Onset	A pipeline incident may occur suddenly, but sight, sound, and smell can alert individuals that there may have been damage done to a pipeline in the area. Products may bubble up from the ground or collect in low-lying areas, a roaring or hissing noise may be heard, and most products give off a distinct odor. These warning signs can alert individuals not to use any devices that may act as ignition sources and cause a fire or explosion.		

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
U.S. Office of Pipeline Safety	http://ops.dot.gov/	
Iowa Utilities Board	http://www.state.ia.us/government/com/util/	
U.S. Senate	http://www.senate.gov/~murray/pipelinestate.html	
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters.shtml	
National Transportation Safety Board	http://www.ntsb.gov/Surface/pipeline/pipeline.htm	
The Disaster Center	http://www.disastercenter.com	
PHMSA Pipeline Safety Program	http://primis.phmsa.dot.gov/comm/reports/safety	



#### **Public Disorder**

**Definition:** Mass demonstrations or direct conflict by large groups of citizens such as marches, protest rallies, riots, and non-peaceful strikes.

**Description:** People assembled together in a manner to substantially interfere with public peace constitute a threat, by use of unlawful force or violence against another person, causing property damage; or attempting to interfere with, disrupt, or destroy the government, political subdivision, or group of people. Labor strikes and work stoppages are not considered in this hazard unless they escalate into a threat to the community. Vandalism is usually initiated by a small number of individuals and limited to a small target group or institution. Most events are within the capacity of local law enforcement.

**Maximum Extent:** The social rage that causes civil unrest often comes from racism, poverty, lack of economic opportunity, and unemployment. Events usually affect a localized area of the community. Often times only a couple of blocks or streets are affected. The local government units are left to pick up the pieces in the aftermath, cleaning up the area, reestablishing services, repairing or replacing damaged public facilities and infrastructure, and trying to restore some level of citizen and private investor confidence in the community.

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Score				
0.46	0.30	0.48	0.10	1.35

Evaluation Criteria	Description
Historical Occurrence	There has been only one event in the county that could be considered a public disorder; this event occurred in LeClaire on November 13, 2004. An ex-minister put up a picture in his front yard of an aborted fetus. The image was so graphic that the police chief closed the road until the display was removed. According to the LeClaire Police Department, this incident caused a lot of public unrest in the community. Luckily all other public disorder type of incidents that have occurred in the county have remained peaceful.
Probability	Although destructive civil disturbances are rare, the potential is always there for an incident to occur. This is even more true today, where television, radio, cell phones, and the internet provide the ability to instantly broadcast information (factual or not) in real time to the entire community. Oftentimes, that coverage helps to spread the incident to other uninvolved or unaffected areas, exacerbating an already difficult situation. This also allows insightful people, previously not involved, to participate in the disturbance for no other reason than to riot, loot, burn, and destruct. Alcohol is often involved in a public disorder, especially related to college campuses, sporting events, and concerts.
Vulnerability	Civil disturbances are often difficult for local communities to handle. There is a fine line between the constitutional right of individuals and groups to assemble and air their grievances and the overall needs of the community to provide essential services, ensure personal safety of citizens, prevent property damage, and facilitate normal commerce. Fortunately, most demonstrations and large public gatherings are held in a peaceful, responsible manner. However, there never seems to be a shortage of groups (drugs and alcohol are often involved) whose primary objective is to disrupt normal activities and perhaps even cause injury and property damage. People at risk are mainly the willing participants and law enforcement officials. Innocent bystanders and their property can be at risk as well. Because the public disorder incidents in Scott County have been peaceful, there have been no actual damages.

Location	Incidents of public disorders can take place anywhere in the county; there is no way of telling where an incident could take place.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: Minimal to moderate and severe. Possibility of injuries to participants and by-standers. Deaths possible in worst case.</li> <li>B. Health and safety of response personnel: Moderate.</li> <li>C. Continuity of operations: Minimal. Usually localized event.</li> <li>D. Property, facilities, and infrastructure: Some damages, destruction possible based on nature or unrest.</li> <li>E. Delivery of services: Minor impact.</li> <li>F. Environment: No impact.</li> <li>G. Economic and financial conditions: Business disruptions and damages may occur at location of event.</li> <li>H. Regulatory and contractual obligations: Impact unknown.</li> <li>I. Reputation of the entity: Depends on how response is handled.</li> </ul>		
Speed of Onset	Events that incite such activity can build up over hours, days, or years, and the violent disturbance is a culmination of the long-term situation. Civil disruptions can also escalate very rapidly following events where people are gathered such as sporting events, concerts, or speeches.		

Sources		
State of Iowa Iowa Hazard Mitigation Plan, 2007		
Local Sources	Various Police Departments within Scott County, Scott County Sheriff Department	

#### Radiological Terrorism

**Definition:** The use of radiological materials against a person or persons in order to bestow fear upon a larger group of people with the ultimate goal of creating coercion to achieve a specific political or religious agenda. It is the strategic use of intimidation, threats, and pressure in order to cause disruption to an opposing system and align that system with that of a specific group or organization.

**Description:** Radioactive materials can be dispersed using sprayers/aerosol generators, or by point of line sources such as munitions, covert deposits, and moving sprayers.

Maximum Extent: Initial effects will be localized to the site of the attack. Depending on meteorological conditions, subsequent behavior of radioactive contaminants may be dynamic. A nuclear blast is divided into three areas that are measured by the radius from the blast center: Red, Blue and Yellow Zones. In the Red Zone, intense heat will cause widespread fires and incinerate almost everything, including organisms. In the Blue Zone, most homes will be completely destroyed and stronger commercial buildings will be severely damaged due to the high-pressure blast wave. In the Yellow Zone, there will be moderate damage to buildings, causing some risk to people due to flying debris. The surface area of these zones is dependent on the size of the blast.

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Score				
0.45	0.92	0.58	0.32	2.27

Evaluation Criteria	Description		
Historical Occurrence	There have been no historical occurrences of radiological terrorism within Scott County.		
Probability	With no prior events by which to judge probability, it becomes necessary to consider the technical feasibility of radiological terrorism. Given that the radiation would kill anyone before they could amass enough material to produce a weapon, the threat is relatively low.		
Vulnerability	Duration of exposure, distance from the source of radiation, and the amount of shielding between the source and target would determine exposure to radiation. Data is not available to estimate potential losses associated with radiological terrorism.		
Location	A radiological terrorist attack could occur anywhere within the planning area; however, areas with higher populations or concentration of people would likely be at a higher risk of attack.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: The potential for mass casualties is great if an event were to take place. Several factors come into play on the number of persons affected including the amount and type of material used, the construction of the device, the site of the detonation, and the population of the detonation area. Nuclear fallout is caused by ionizing radiation moving at high speeds throughout the air. These combine and attach to the radioactive materials from the bomb itself and dispense radioactive contamination into the environment. This may create sickness or even death in organisms and to nature.</li> <li>B. Health and safety of response personnel: There could be a significant risk to the health and safety of personnel that would respond to the site. This would depend on the magnitude of the explosion and the infrastructure in the area. Precautions must be made prior to deploying emergency services. Radiation detection and protection equipment must be available and utilized in the event of such an attack. These measures greatly reduce the risk of health and safety of responding personnel. Another risk is the positive charge that may be present in metal objects due to the electromagnetic pulse (EMP).</li> </ul>		

Evaluation Criteria	Description
	<ul> <li>C. Continuity of operations: Depending on where the detonation occurs and its proximity to critical facilities/infrastructure, there could be a great impact on operations due to the lack of resources to handle the situation. The continuity of operations will depend upon the capabilities of all responders. If a detonation occurs in a larger city and the response is limited to less capable smaller cities, then the continuity of operations may be severely compromised. Conversely, if the detonation is in an area in which the most capable response personnel are not affected, then the continuity of operations is only minimally affected. The electromagnetic pulse may also disrupt communication lines in some equipment.</li> <li>D. Property, facilities, and infrastructure: The extent of destruction to property and</li> </ul>
	infrastructure is dependent on the size and location of the blast itself.  E. Delivery of services: Delivery of services from within the blast area will be rendered incapable. All delivery services outside the blast ring will be affected by the range and capabilities of their own services. EMP may also disrupt some equipment.
	F. <i>Environment</i> : A nuclear blast would have a severe impact on the environment. As stated before, nuclear fallout is caused by ionizing radiation moving at high speeds throughout the air. These combine and attach to the radioactive materials from the bomb itself and dispense radioactive contamination into the environment. This may create sickness or even death in organisms and to nature.
	<ul> <li>G. Economic and financial conditions: Disruption of business due to potential evacuations.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: Could be very damaging because of the high profile of these</li> </ul>
	events. The negative impact can be felt for decades following a contamination.
Speed of Onset	Acts of terrorism can be immediate and often come after little or no warning. There are occasions where terrorists have warned the targeted organization beforehand, but often the attack comes without previous threat. Even if it is a false threat, precautions must be taken to ensure the safety of the people and property involved. With radiation, the initial release may not be identified for a period of time until symptoms become apparent.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
City of Davenport	Pre-Disaster Mitigation Plan, February 2007	
Department of Homeland Security	http://www.dhs.govpublic/	
Iowa Homeland Security	http://www.iowahomelandsecurity.org	
Federation of American Scientists	http://www.fas.org	
U.S. Department of Justice	http://www.fbi.gov/terrorinfo/terrorism.htm	

# Railway Transportation Incident

**Definition:** A derailment or train accident that directly threatens life or property, or that adversely affects community capabilities to provide emergency services.

**Description:** Railway incidents may include derailments, collisions, and highway/rail crossing incidents. Train incidents can result from a variety of causes. Human errors, mechanical failure, faulty signals, and problems with the track can all lead to railway incidents. Results of an incident can range from minor "track hops" to catastrophic hazardous materials incidents and even passenger casualties. With the many miles of track in Scott County, there are numerous atgrade crossings at which vehicles must cross the railroad tracks.

**Maximum Extent:** Vehicle/train collisions are usually limited to areas in and near intersections. Rarely, the incident will result in widespread effects. The area of impact is usually quite small, but depending on the products and materials involved, the area could become extensive. If hazardous materials are involved, the area could reach areas up to 1.5 miles from the scene.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.92	0.55	0.60	0.24	2.31

Evaluation Criteria	Description			
Historical Occurrence	From January 1975 to January 2010, there have been 217 documented rail incidents in Scott County, according to the Federal Railroad Administration (FRA). Fifty of those incidents resulted in a total of 64 injuries. There were a total of 6 fatalities reported in a Railway Transportation Incident.			
Probability	There are 170 at-grade railroad crossings in Scott County. Based on the incident reporting data from the FRA, an average of 6 incidents, 1.8 injuries, and 0.17 fatalities have occurred per year since 1975. It is highly probably that there will be more than one railway incident somewhere in Scott County in any given year. The probability of a railway incident occurring in a specific jurisdiction will be addressed in each jurisdiction's individual risk assessment narrative.			
Vulnerability	People and property in close proximity to the railway lines, crossings, sidings, switching stations, and loading/unloading points are most at risk. Those away from railroad tracks and facilities are vulnerable only to large-scale incidents including those in which hazardous materials are involved. The three FRA reported railroad accidents that occurred in 2011 caused just under \$38,000 in damages.			
Location	Vehicle/train collisions are usually limited to areas in and near intersections. Rarely, the incident will result in widespread effects. Map II-1 in Chapter II shows the locations of railways within Scott County. Railway Transportation Incidents are most likely to occur within the railroad corridor.			
Severity	<ul> <li>A. Health and safety of persons in affected areas: Deaths and injuries can range from those directly involved to citizens in the community affected by hazardous materials. Depending on the materials involved, evacuations may occur, moving residents away from dangerous products and the possibility of explosion.</li> <li>B. Health and safety of response personnel: If hazardous materials are involved (see Transportation of Hazardous Materials Incident), railroad officials have specially trained personnel and equipment to respond to rail incidents.</li> <li>C. Continuity of operations: No significant effects.</li> <li>D. Property, facilities, and infrastructure: Damage may be limited to the train, railcars, and cargo involved, but it could also include rail infrastructure and adjacent properties.</li> <li>E. Delivery of services: Rail transportation routes may be out of commission until the accident</li> </ul>			

Evaluation Criteria	Description				
	is cleaned up and the infrastructure repaired. Cargo will be delayed significantly as well as				
	services that depend on that cargo.				
	F. <i>Environment:</i> Gases, liquids, and solids can contaminate air soil and water in and near the incident scene.				
	G. Economic and financial conditions: Effects include loss of production, business disruption due to evacuations, and business disruptions of those served by the railroad. Business and				
	traffic disruptions could last several days until the clean-up efforts are complete.				
	H. Regulatory and contractual obligations: None known.				
	I. Reputation of the entity: Most communities with rail routes in them are familiar with the				
	level of rail traffic, but they may not be familiar with the cargo that may be transported on				
	them. Most are not aware of the significant risk that hazardous materials pose to the				
	community. Education, public information, and a timely and effective response will				
	determine the impact to the reputation of the jurisdiction.				
Speed of Open	Like other transportation incidents, a railway incident could occur with no warning. There may				
Speed of Onset	be a limited amount of time to warn those in the pathway of the harmful effects.				

Sources				
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007			
City of Davenport	Pre-Disaster Mitigation Plan, February 2007			
Iowa Department of Transportation	http://www.dot.ia.us/rail/index.htm			
National Transportation Safety Board	http://www.ntsb.gov/			
Federal Railroad Administration	http://www.fra.dot.gov/site/index.htm http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/incabbr.aspx			
Association of American Railroads	http://www.aar.org/			

## River Flood

**Definition:** A rising or overflowing of a tributary or body of water that covers adjacent land not usually covered by water when the volume of water in a stream exceeds the capacity of the channel.

**Description:** Floods are the most common and widespread of all natural disasters, except fire. Most communities in the United States can experience some kind of flooding after spring rains, heavy thunderstorms, winter snow thaws, waterway obstructions, or levee or dam failures. Often it is a combination of these elements that causes damaging floods. Floodwaters can be extremely dangerous. The force of six inches of swiftly moving water can knock people off their feet and two feet of water can float a car. Floods can be slow, or fast rising, but generally develop over a period of days. Flooding is a natural and expected phenomenon that occurs annually, usually restricted to specific streams, rivers, or watershed areas.

**Maximum Extent:** Flood categories in feet at the National Weather Service gage points in Scott County:

Flood Stages	Wapsipinicon River near DeWitt	Mississippi River at Lock & Dam 14	Mississippi River at Lock & Dam 15
Major Flood Stage (ft)	12.5	13.5	18
Moderate Flood Stage (ft)	11.5	12	16
Flood Stage (ft)	11	11	15
Action Stage (ft)	10	10	13

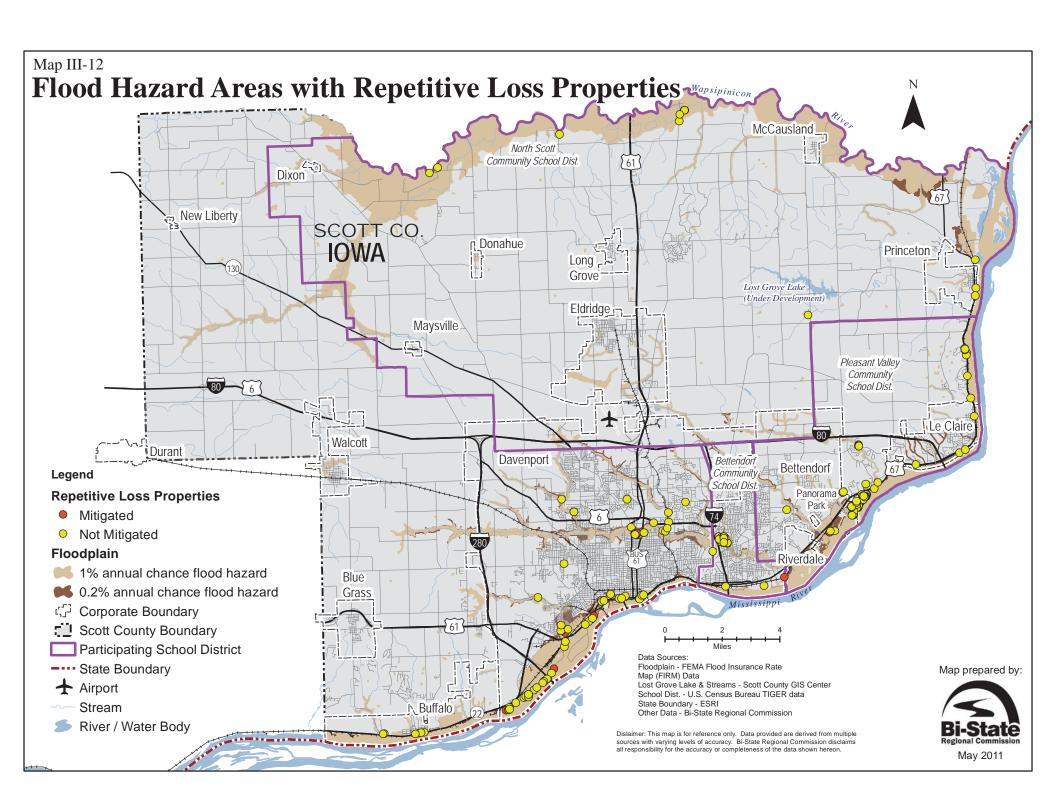
	Hazar	d Score Calculation		
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
1.29	0.77	0.15	0.38	2.60

Evaluation Criteria	Description
Historical Occurrence	The National Climatic Data Center reports 87 flood events within Scott County between 8/16/1993 and 10/31/2009. Fifty-eight of these events are listed as flash flood or urban/small stream flooding and are addressed in the Flash Flood Hazard Profile. The remaining 29 events document flooding on the major rivers in Scott County: the Wapsipinicon River and the Mississippi River. The top ten historic crests at National Weather Service gage points along the Wapsipinicon and Mississippi River are listed below. There are two gage points along the Mississippi River – Lock and Dam 14 near the City of LeClaire and Lock and Dam 15 at Rock Island, IL, across from the City of Davenport. Nine of the top ten historic crests on the Wapsipinicon River occurred in the last 25 years. Five and six of top ten historic crests on the Mississippi River at LeClaire and Rock Island respectively occurred within the last 25 years.

1		Wansin	inicon River	Mississi	ippi River at	Mississi	ppi River at	
	Rank		ear DeWitt		Lock & Dam 14		Lock & Dam 15	
		Feet	Date	Feet	Date	Feet	Date	
	1	14.19	06/17/1990	17.75	04/28/1965	22.63	07/09/1993	
	2	14.13	06/16/2008	16.93	04/24/2001	22.48	04/28/1965	
	3	13.79	05/30/2004	16.56	07/08/1993	22.33	04/25/2001	
	4	13.66	05/24/1999	14.97	04/22/2011	22.00	03/10/1868	
	5	13.26	05/01/2008	14.84	06/16/2008	21.49	06/16/2008	
	6	13.16	06/08/2002	14.61	04/19/1997	20.71	04/22/2011	
	7	13.12	02/22/1997	14.60	04/26/1969	19.66	04/20/1997	
	8	13.11	06/30/1990	14.03	05/09/1975	19.40	06/27/1892	
	9	13.07	05/17/1974	14.01	04/28/1952	19.30	04/26/1969	
	10	13.06	09/01/1990	13.74	04/26/1951	19.24	04/29/2008	
S	omewh	ere in the	county.					
n	napping State Flo	has allov odplain N	from river flood wed many comm Manager report si	unities to r	estrict developn	nent in haz	ardous areas. ithin Scott Co	
erability 5 b a a b p	ouildings any 10-y approximouilding propertie	s for whice ear period nately 560 and contests in Scott	tive loss propert h two or more conditions. The 200 repet claims totaling ent losses. Map a County. The 20 18 in damages of	laims of m itive loss p over \$11,8 III-12 show 110 State of	oroperties within 888,000 in dama ws approximate of Iowa Hazard 1	each were a Scott Counges. Thes locations of Mitigation	paid by the North paid by the North paid by the Repetitive of the repetitive	

Severity	<ul> <li>A. Health and safety of persons in affected area: Flooding effects include potential loss of life. River flooding does not have as high a risk as flash flooding because of the slower onset of the river flood. There are health concerns from contamination of water and the duration of standing flood waters in residential structures. Even when water recedes, the growth of toxic mold can be a lingering health hazard.</li> <li>B. Health and safety of response personnel: Responding to river flooding often includes sandbagging and working in floodwaters. Response personnel should have current tetanus and hepatitis shots. Rescuing victims often requires rescue by boat. Wearing protective gear such as life vests at all times can prevent most injuries related to river flooding.</li> <li>C. Continuity of operations: Operations could be disrupted from direct effects if facilities are in the floodplain and indirectly from loss of critical services to maintain operations. Backup power and other services can eliminate the impact to operations.</li> <li>D. Property, facilities, and infrastructure: Personal property can be extensively damaged or destroyed by swift moving water. Scouring may affect facilities and infrastructure by degrading structural integrity.</li> <li>E. Delivery of services: Damage and disruption of communications, transportation, electric service, and community services are likely in severe cases. Water treatment and waste water treatment facilities are often located in or near the floodplain and are at high risk of flooding or eventually being taken offline.</li> <li>F. Environment: River flooding also produces hazards of fire, health, and transportation accidents. Contamination of water supplies is a likely effect of flooding situations as well. There may be effects to the soils in the floodplain from the removal and deposit of silt, sand, and debris.</li> <li>G. Economic and financial conditions: Crop and livestock losses and interruption of businesses either from direct flooding or loss of the d</li></ul>		
	accurate and up-to-date flood insurance rate maps will head off most allegations of poor service of the jurisdiction from its citizens.		
Speed of Onset	Gauges along streams and rain gauges throughout the state provide for an early flood warning system. River flooding usually develops over the course of several hours or even days depending on the basin characteristics and the position of the particular reach of the stream. The National Weather Service provides flood forecasts for Iowa. Flood warnings are issued over emergency radio and television messages as well as the National Oceanic and Atmospheric Administration (NOAA) Weather Radio. People in the paths of river floods may have time to take appropriate actions to limit harm to themselves and their property.		

Sources				
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007			
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms			
American Red Cross, Preparedness Fast Facts	http://www.redcross.org			
Federal Emergency Management Agency (FEMA)	http://www.fema.gov/hazard/flood/index.shtm			
City of Davenport	Pre-Disaster Mitigation Plan, February 2007			
National Weather Service Advanced Hydrologic Prediction Service	http://www.nws.noaa.gov/oh/ahps/			



#### Severe Winter Storm

**Definition:** Severe winter weather conditions that affect day-to-day activities. These can include blizzard conditions, heavy snow, blowing snow, freezing rain, heavy sleet, and extreme cold.

**Description:** Winter storms may occur at any time between October and April. The various types of extreme winter weather cause considerable damage. Heavy snows can cause immobilized transportation systems, downed trees and power lines, collapsed buildings, and loss of livestock and wildlife. Blizzard conditions are winter storms that last at least three hours with sustained wind speeds of 35 mph or more, reduced visibility of 1/4 mile or less, and white-out conditions. Heavy snow of more than six inches in a 12-hour period or freezing rain greater than 1/4 inch accumulation may cause hazardous conditions in the community that can slow or stop the flow of vital supplies and disruptions of emergency and medical services may occur. Loose snow begins to drift when the wind speed reaches 9 to 10 mph under freezing conditions. The potential for some drifting is substantially higher in open country than in urban areas where buildings, trees, and other features obstruct the wind. Ice storms can result in fallen trees, broken tree limbs, downed power line and utility poles, fallen communication towers, and impassable transportation routes. Severe ice storms have caused total electric power losses over large areas of Iowa and rendered assistance unavailable to those in need due to impassable roads. Frigid temperatures and wind chills are dangerous to people, particularly the elderly and the very young. Dangers include frostbite or hypothermia. Water pipes, livestock, fish and wildlife, and pets are also at risk from extreme cold and severe winter weather.

**Maximum Extent:** Winter storms may affect a large area, although local variations in storm intensity and quantity of snow or ice may occur. The following available information from the National Climatic Data Center gives an indication of the magnitude of such events:

<b>Event Date</b>	Туре	Fatalities	Injuries	Property Damage
11/14/1996	Winter Storm	1	11	\$183,500
01/01/1999	Winter Storm	2	0	\$0
02/24/2007	Ice Storm	0	0	\$312,000
02/01-02/2011	Blizzard	0	0	N/A

	Hazar	d Score Calculation		
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
1.64	0.37	0.22	0.31	2.54

Evaluation Criteria	Description
Historical	There have been 84 winter weather events recorded in Scott County since 1960. Twenty-eight events were categorized as snow storms or heavy snow, 18 events were ice storms, and 11 events involved extreme cold. Other events were mixes of glazing, blizzard conditions, freezing rain, blowing snow, frost, and sleet.
Occurrence	November 14, 1996: Around an inch of snow caused numerous accidents and injuries across eastern Iowa as roads became slick. East bound lanes of Interstate 80 were closed near the Mississippi River for over an hour, backing up traffic for 20 miles. One fatality was reported on Highway 218 northwest of Vinton, IA.

Evaluation Criteria	Description
	January 1, 1999: This event spanned three days and produced 9 to 12 inches of snow over east central Iowa. Two fatalities were reported. A 40-year-old male in Burlington Iowa died due to over exertion while shoveling and an 11-year-old Oklahoma boy was killed in a car accident in Davenport.  February 24, 2007: A widespread and crippling ice/snow storm affected eastern Iowa, northwest and western Illinois, and extreme northeast Missouri. This massive ice storm was the worst to affect the region since January 22-23, 1965. Ice accumulations of around one inch were common, with some reports to near two inches. East winds gusting over 50 mph, combined with the heavy ice accumulation, brought down numerous tree branches and power lines, along with several thousand power poles. Several trees also fell from the weight of the ice. Widespread power outages occurred, affecting over 180,000 people, which lasted more than a week in some of the rural areas. The governor of Iowa declared much of the state a disaster area, and requested President George W. Bush to declare much of eastern Iowa a federal disaster area. No direct deaths were reported.  February 1-2, 2011: A tremendous blizzard affected the region, with snowfall totals ranging from 10-20 inches and snow drifts as high as 7 feet. Many roads and interstates were closed.  Blizzard conditions were widespread and visibility was near zero with 50-60 mph wind gusts (Davenport recorded one of the strongest wind gusts of 56 mph). At the height of the blizzard, snowfall rates were as high as 1-3 inches per hour. A 24-hour snowfall record was set in Moline, IL Quad City International Airport of 16.7 inches.
Probability	Most Iowa counties can usually expect 2 or 3 winter storms per season with an extreme storm every 3 to 5 years on average. A snowfall of six inches or more from one storm only occurs in 49% of Iowa winters, while a large winter storm event of 10 inches or more will occur about once every 3 years. A simple average of recorded Scott County events yields about 5 days of winter storm incidents per year.
Vulnerability	Hazardous driving conditions due to snow and ice on highways and bridges lead to many traffic accidents. In addition to local streets, arterials and highways, several interstates also pass through Scott County. About 70% of winter-related deaths occur in automobiles and about 25% are people caught out in a storm. Those at risk are primarily either engaged in outdoor activity (shoveling snow, digging out vehicles, or assisting stranded motorists), or are elderly or very young. The 2010 State of Iowa Hazard Mitigation Plan reports that an average of \$74,898 in damages from Severe Winter Storms occur annually in Scott County.
Location	Any area is vulnerable to the effects of severe winter storms with different aspects of the storm varying in severity depending on location.
Severity	<ul> <li>A. Health and safety of persons in affected area: Effects on safety are extremely variable. Serious injuries and fatalities are possible due to winter storm-related vehicle accidents as well as exposure to cold. Severity depends on many factors including age and health of the person, exposure to elements, and activity at time of storm.</li> <li>B. Health and safety of response personnel: The safety of response personnel is negligible with few injuries reported. However, winter storms can cause dangerous driving conditions for response teams.</li> <li>C. Continuity of operations: Severity of disruption of operations may be limited to critical. Essential facilities and services may be shut down for a period of time.</li> <li>D. Property, facilities, and infrastructure: Minor to short-term damage that does not threaten structural integrity may occur. Depending on the severity of the storm, there may be down trees and power lines due to heavy snow or ice.</li> <li>E. Delivery of services: Effect on services may be limited to critical. Essential services may be shut down to a period of time.</li> <li>F. Environment: There may be minor to short-term environmental effects. Trees and limbs may downed. Wildlife may also be affected by extreme temperatures.</li> <li>G. Economic and financial conditions: Minor to short-term effects may be expected due to shut downs of essential facilities and services.</li> </ul>

Evaluation Criteria	Description		
	H. Regulatory and contractual obligations: None known.		
	I. Reputation of the entity: There may be possible limited effects on the reputation of the		
	entity. The severity of effects depends on the public's perception of the entity's response.		
	The National Weather Service (NWS) has developed effective weather advisories that are		
Speed of Onset	promptly and widely distributed via radio, TV, internet, and weather alert radios. Winter storm		
	information is made available to public officials and the public up to days in advance.		

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms	

## Sinkholes and Land Subsidence

**Definition:** A downward sinking, collapse, or a shifting of the land surface, often times resulting from underground mining. Also, the geology of an area containing karst features may contribute to land subsidence. Karst is defined as a landscape that is characterized by the features of solution weathering and erosion in the subsurface. These features include caves, sinkholes, disappearing streams, and subsurface drainage.

**Description:** Sinkholes range from broad, regional lowering of the land surface to localized collapse. The primary causes of most subsidence are human activities: Underground mining of coal or limestone, groundwater or petroleum withdraws, and drainage of organic soils. Sinkholes are due also to erosion of limestone of the subsurface.

Early settlers in Iowa developed underground mines to extract coal. Land areas over these old mines were generally sparsely populated and if settlement or collapse occurred, homes or other structures were seldom damaged. As towns or cities expanded over mined-out areas, subsidence damage to structures became increasingly common.

The Devonian limestone underlying Scott County has paleo-karst features that are usually found filled with overlying Pennsylvanian-Pottsville sandstone and shale. Observations in the Rock Island, IL area show that this limestone has old karst features of dissolved limestone areas forming large open spaces. The limestone in Scott County has been mined for decades in various locations in the county. All mining was done in open pits until the opening of the underground Linewood Mine near Buffalo, IA in the 1960s. Sand and gravel are also extracted in Scott County in several locations.

**Maximum Extent:** Damage consists primarily of direct structural damage and property loss and depreciation of land values, but also includes business and personal losses that accrue during periods of repair. In addition to the loss of habitat, land subsidence has the potential to reroute, displace, and contaminate ground water, altering the immediate land and aquatic ecosystems. Land subsidence not only affects the immediate environment, but can pollute and effect ecosystems far from the event with contaminants (hazardous materials, sewage, etc.) being transported throughout the aquifer.

If a pillar system fails in providing regional support within the limestone mine, a wide area collapse is likely to occur with associated surface subsidence.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.46	0.31	0.55	0.26	1.59

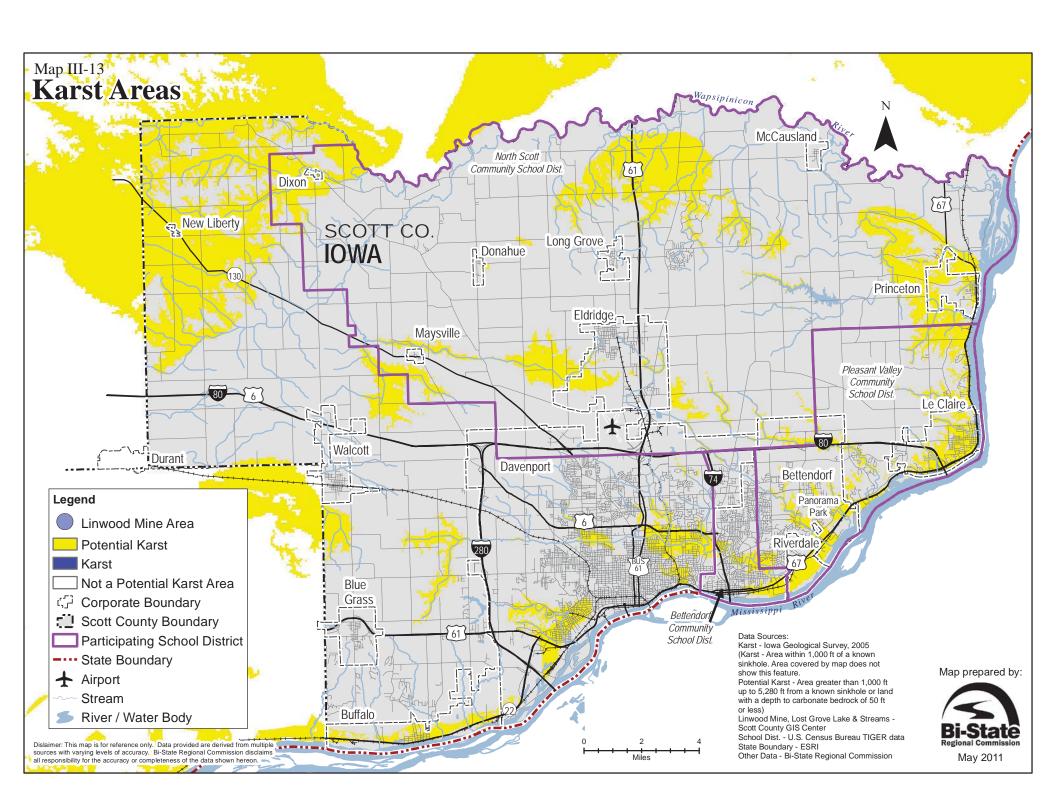
Evaluation Criteria	Description
Historical Occurrence	Scott County has not had any recorded subsidence associated with karst topology. However, in 2008, sinkholes developed in a few roads due to excessive runoff. These are documented as there was also severe flooding in the county in 2008. There have been instances of road collapse due to broken water or sewer pipes. These are generally very localized in nature and cause minor disruption to traffic or services and are considered structural failures. More information on structural failures can be found later in this chapter.

Evaluation Criteria	Description		
	The Linwood underground mine has been in operation since the 1960s and currently mines approximately 32 acres per year. The structural integrity of the mine is dependent on the geology and deposition of the limestone formation. During the mining operation, there may be areas where the geology (shale, sandstone) may not fully support the material above the mined out area. These areas pose a greater risk for collapse or subsidence. In fact, in 1993 an area of the Scott County landfill, operating above a mined-out portion of the mine, subsided. Realizing the potential for this to occur in the future, the Department of Natural Resources has authorized AMSCO to place processed Coal Combustion By-Products, CCB (ash) in the mined out areas, beginning in areas underlying the landfill. This has successfully prevented a reoccurrence of the subsidence under the operating landfill. AMSCO continues to work with Linwood to determine mine reclamation locations for deposition of AMSCO's product. See the mine operation area for the Linwood Mine on Map III-13.  There have been no known subsidence issues related to the historic coal mining in Scott County. However, the known coal mining sites are largely located in undeveloped areas. New subdivision development has occurred in the vicinity of the recorded mine shafts north of Buffalo Township Section 16. It is not known if any of these houses are located directly over a mined out area. The above-ground area of the Blackwell Mine has not had any development occur in the vicinity.		
Probability	Land subsidence occurs slowly and continuously over time or on occasion abruptly, as in the sudden formation of sinkholes or collapse of mined-out areas.  According to the Iowa DNR, subsidence of the land surface has occurred over abandoned underground mines in Iowa, and this process can be expected to continue. There is an increased probability of subsidence occurring with the Linwood Mine due to continuing mine operation and the varied underground landscape. However, this is constantly monitored, and remediation solutions are in place to prevent occurrence. There is also increased probability with the small coal mines as no remediation or reclamation of these areas has taken place.  Subsidence due to Karst features in Scott County would be very rare.		
Vulnerability	Sinkholes can aggravate flooding potential. Collapses, such as the sudden formation of sinkholes or the collapse of an abandoned mine, may destroy buildings, roads, and utilities.  Land subsidence movements are not selective – all structures (buildings, sidewalks, driveways, fences, streets, curbs, etc.) in the immediate area will be affected with a subsidence event. The type and extent of damage to structures directly relates to their physical orientation and location in the subsidence area. Ground movements can also damage water and sewer lines, as well as other utilities. In most cases, damages range from minor to moderate in severity. Repair or renovations are usually sufficient to restore structural integrity. However, in severe cases ground settlement and the resulting damages associated with land subsidence may require complete demolition and rebuilding. Due to the limited number of mined areas and their general locations in the county, the actual number of homes located in or near potential subsidence areas, vulnerability is considered to be very low. Greatest vulnerability is in the former coal mine areas north of Buffalo, IA and on property above the Linwood Mine. New development in this area would increase the vulnerability of structures to subsidence. Areas of the Scott County Landfill located over newly mined out areas of the Linwood Mine would be vulnerable to future subsidence. Historic damage reports are currently not available for land subsidence and sinkholes in Scott County, making estimating potential loss difficult.		
Location	The Iowa DNR Geological and Water Survey division reports that Scott County has at least one recorded karst feature. This feature is located at the Linwood Stone Company Quarry near Buffalo. A portion of a paleo-karst cavern complex has been preserved without sediment filling. The geology of Scott County consists of several areas with varying levels of karst development and potential as shown on Map III-13.  The Linwood Mine is a large underground limestone mine located in Buffalo Township and adjacent to the former Buffalo Quarry, now the Linwood Stone Company Quarry. This quarry is		

Evaluation Criteria	Description		
	an open pit mine. The Linwood Mine is a continuous underground mining operation and on the largest in the country. The mine operates 12 months of the year. It is mined using the "and pillar" method, which results in large underground voids on two "floors" 90 and 130 fee below the surface. Linwood Mining and Mineral Corporation has operated a quarry and lim production facilities in this area since the 1940s. The Linwood underground mine has been operation since the 1960s and currently mines approximately 32 acres per year.  The Iowa DNR Geological and Water Survey division has indentified and recorded 37 underground coal mine locations in Scott County. Those records document mine operations		
	early as 1840 near Jamestown (former mine camp north of Buffalo, IA near 100 <sup>th</sup> Avenue and Chapel Hill Road) and as late as 1936. Because mining activity was not regulated or documented until the late 1800s, little or no information is available for older mines. Most of coal mine shaft locations are located in Buffalo Township, Sections 2, 3, 5, 6, 9, 19, 11, and 10 There is also a coal seam near the former town of Black Hawk. This is near the intersection of Telegraph Road a few blocks east of Wisconsin Avenue in Davenport. There is no record of mining in this area as the seam is very thin. Possible small mines were also located in the vicinity of Section 5 in Pleasant Valley Township. Iowa DNR has one underground coal mine		
	map recorded for Scott County. This is for the Blackwell Mine that operated from 1932 – 1936 in the S. E. ¼ of the N.E. ¼ of Section 3of Township 77 North, Range 2 West. There are no maps for the other 36 known mines, just general shaft locations pinpointed to the nearest quarter or full section.		
Severity	<ul> <li>A. Health and safety of persons in affected areas: Generally, land subsidence poses a greater risk to property than to life. Subsidence in open underground sections of the Linwood Mine could pose a severe threat up to and including death to personnel working in that area.</li> <li>B. Health and safety of response personnel: May be minor to moderate danger if an incident occurred in the Linwood Mine where mine personnel need to be rescued or extracted from the mine.</li> <li>C. Continuity of operations: Depends on the area damaged and the facilities and infrastructure involved.</li> <li>D. Property, facilities, and infrastructure: Damage to property, facilities, and infrastructure would occur if the event undermined foundations and roads. There is an underground road system within the Linwood Mine, and facility offices are located in a portion of the mine.</li> <li>E. Delivery of services: Likely not affected.</li> <li>F. Environment: Sinkholes are a naturally occurring event, and environmental concerns would be minor but could include runoff of farm chemicals or sewage directly into an aquifer, polluting the aquifer. There may be some environmental concerns associated with subsidence of the Scott County Landfill, which is located over a portion of the Linwood Mine and in the vicinity of known karst topography. Landfill leachate or Methane gas may be released into groundwater during a subsidence occurrence.</li> <li>G. Economic and financial conditions: Land subsidence events have damaged homes and commercial structures, disrupted gas/electricity, water service, communications, and could disrupt transportation routes. A large subsidence at the Linwood Mine would disrupt mine operations and have some minor economic impact on the county.</li> <li>H. Regulatory and contractual obligations: Linwood Mine is subject to mine reclamation regulations under Iowa Code section 208.17, which obligates Linwood Mining to ensure that its mine is stabilized and requires a bond to assure that reclamation of the mine is c</li></ul>		
Speed of Onset	Regional lowering occurs gradually over time, while the collapse of abandoned mines can occur suddenly. Subsidence events are very isolated and localized. They are very hard to predict in advance due to undermined and destabilized rock and soil conditions or movements below ground. Many times warning signs such as cracks and soil settlement do appear in advance and can be closely watched with inspections and over all monitoring of conditions. Events may occur over extended periods of time, although they have occurred very rapidly with little		

Evaluation Criteria	Description
	advance warning. New technologies and software are being used by engineers and geologists to prevent mine subsidence in active mines and to fill and close off areas already mined and prone to roof or pillar failure.

Sources			
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007		
FEMA	"A Cornerstone of National Mitigation Strategy." July, 1997		
Iowa DNR Geological Survey Bureau	http://www.igsb.uiowa.edu/service/hazards.htm		
Cavin, S. and Lees, J. H., 1909, Iowa	Volume XIX, Annual Report, 1908 with Accompanying Papers		
Geological Survey			
Report from AMSCO Ash Management	September 8, 2008 to the Land Quality Bureau, Iowa Department of		
Systems	Natural Resources		
G.S. Esterhuizen, D.R. Dolinar and J.L.			
Ellenberger; Assessment of Stable and	National Institute for Occupational Safety and Health (NIOSH),		
Failed Pillars in Underground Limestone	Pittsburgh, Pa.		
Mines			



#### Structural Failure

**Definition:** The collapse (part or all) of any public or private structure including roads, bridges, towers, and buildings.

**Description:** A road, bridge, or building may collapse due to the failure of the structural components or because the structure was overloaded. Natural events such as heavy snow may cause a roof of a building to collapse under the weight of the snow. Heavy rains and flooding can undercut and washout a road or bridge. The age of the structure is sometimes independent of the cause of the failure. Enforcement of building codes can better guarantee that structures are designed to hold up under normal conditions. Routine inspection of older structures may alert inspectors to "weak" points. The level of damage and severity of the failure is dependent on factors such as the size of the building or bridge, the number of occupants of the building, the time of day, day of week, amount of traffic on the road or bridge, and the type and amount of products stored in the structure.

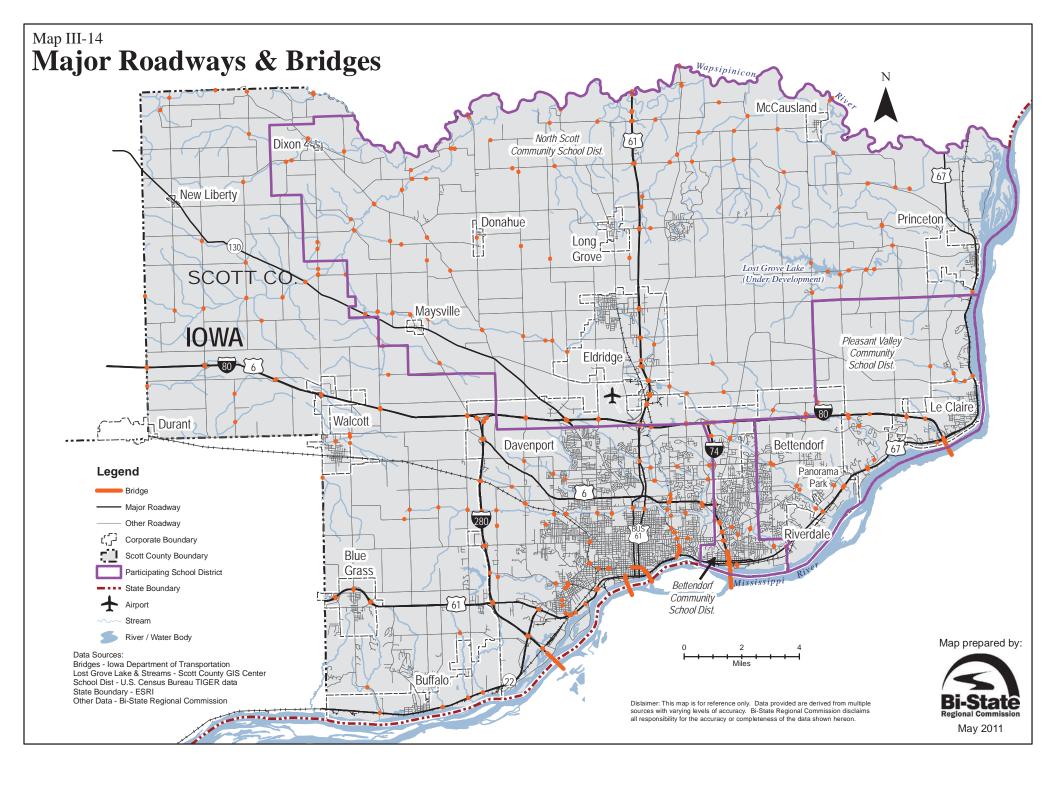
**Maximum Extent:** The effects of the failed structure would be contained to the immediate area and adjacent properties. This could be as small as the house and yard of a fallen chimney, or the area could be relatively extensive if the structure that failed was a multi-story building of a downtown high-rise or a tall communication tower. Dam and levee failures would affect a much larger area and are discussed as separate hazards.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.46	0.58	0.58	0.38	2.00

Evaluation Criteria	Description
Historical Occurrence	Scott County has not been subject to many instances of structural failure. The most recent was in the spring of 2009, during a routine inspection of the Interstate 80 Bridge cracking was found on the overhang floor beam bracket. Interstate 80 runs through Scott County, where the bridge begins in LeClaire, IA and then crosses the Mississippi River into Illinois. Further inspection of the bridge revealed a total of 100 critical points. Bridge construction to repair the damage will be in two phases, beginning in the spring of 2010, with construction work to be complete in fall 2010. Another concern to the county is small or partial collapses of roadway infrastructure, commonly referred to as "sinkholes" (Note: Naturally occurring sinkholes are a different type of hazard and are addressed in the "Sinkholes" natural hazard profile. Please refer to the "Sinkholes" and "Land Subsidence" profiles for more information). These "sinkholes" can start by the ground shifting, which in turn breaks the underground piping, which then leaks water eroding the ground around the pipe eventually leading to the cave in of the roadway above it. These "sinkholes" are an annual problem and will continue to be an ongoing issue in the county in areas with older infrastructure. In the spring of 2010, the City of Davenport alone fixed around 100 "sinkholes," with a cost of \$750,000.
Probability	Civil structures may fail in a variety of modes. The unprecedented growth in technology has resulted in a host of problems related to complex structures, special materials, and severe operational and environmental loads, such as fire, excessive vibrations, explosion, high-energy piping failures, missiles, and earthquakes. With the possible exception of misuse or accidental or environmental loads, the causes of failure may be found in deficiencies of design, detailing, material, workmanship, or inspection. Scott County has five major bridges that all cross the Mississippi River into Illinois: I-80, I-74, I-280, Government Bridge, and Centennial Bridge. There are times when there is construction on more than one bridge and heavier than normal

Evaluation Criteria	Description			
	traffic on the others. With the aging structures in the country along with problems with new materials discussed above, structural failures will continue to occur. Efforts to inspect and maintain these structures will lessen the probability of a failure, but not guarantee that it will not happen in the future.			
Vulnerability	As our infrastructure ages, there will always be a threat of deterioration. Continual inspection in the county will always be needed to monitor the conditions of the infrastructure.			
Location	The entire county has the possibility of structural failure. Due to the nature of the hazard, any area in the county could be at risk. Reference Map III-14 <i>Major Roadways and Bridges</i> for more information.			
Severity	<ul> <li>A. Health and safety of persons in affected areas: Personal injury, death, and property damage may occur in the collapse itself or by falling debris from nearby structures.</li> <li>B. Health and safety of response personnel: Response personnel could limit their risk through proper training and equipment. Structural collapse rescue is a specialized form of rescue and can result in injury or death to responders.</li> <li>C. Continuity of operations: Functional purpose of the building would be terminated or suspended until the integrity of the structure could be restored.</li> <li>D. Property, facilities, and infrastructure: Effects could range from minor disruption to full destruction of the structure. Structures that could be affected would range from private homes and businesses to government facilities to transportation infrastructure.</li> <li>E. Delivery of services: Bridge failures and debris in the streets and sidewalks would interrupt normal routes of travel. Utilities may be cut off to surrounding areas and communication transmissions may be lost for a period of time.</li> <li>F. Environment: No severe impact to the environment unless the structural failure released a hazardous substance that could contaminate the air, water, or soil.</li> <li>G. Economic and financial conditions: There would be a considerable cost to replace or fix the structure, including the loss of revenue that would occur because the structure could not be used.</li> <li>H. Regulatory and contractual obligations: Failure during construction can be the liability of the contractor or the owner. This would depend upon the contract for construction and at which time the property ownership is transferred. Code development and enforcement can play a significant role in limiting the impact from structural failures in the jurisdiction.</li> <li>I. Reputation of the entity: If the structural collapse could have been averted or limited in any way by code enforcement, the reputation could suffer from public outcry.</li> </ul>			
Speed of Onset	The actual failure of the structure would likely occur suddenly with little or no warning. There are several events that could lead up to the failure, and these have various warning times and are discussed in separate hazard worksheets. Casual hazards can include fire, explosion, overloading of ice and snow, earthquakes, flooding, high wind, or erosion.			

Sources		
State of Iowa	Iowa Hazard Mitigation Plan, 2007	
Bi-State Regional Commission	I-80 Bridge Construction	
Local Sources	Various	



## Structural Fire

**Definition:** An uncontrolled fire in a populated area that threatens life and property and is beyond normal day-to-day response capabilities.

**Description:** Structural fires present a far greater threat to life and property and the potential for much larger economic losses. Modern fire codes set the minimum fire suppression requirements in new construction and building renovations. Builders and property owners should strive for more than the minimum requirements. These requirements coupled with improved firefighting equipment, training, and techniques, lessen the chance and impact of a major urban fire. Most structural fires occur in residential structures, but the occurrence of a fire in a commercial or industrial facility could affect more people and pose a greater threat to those near the fire or fighting the fire because of the volume or type of the material involved.

Maximum Extent: With modern training, equipment, fire detection devices, sprinkler systems and building regulations and inspections, most fires can be quickly contained and limited to the immediate structure involved. Certain circumstances, such as the involvement of highly combustible materials or high winds, can threaten a larger area. The age and density of a particular neighborhood can also make it more vulnerable to fire due to the spreading of fire from neighboring structures. However, it has been found that older commercial structures have fairly good fire containment with double thick brick firewalls between buildings. Firefighters in Scott County have also had to contend with broken fire hydrants and silicone in the water lines that has clogged the filter screens in the pumps of fire trucks. The majority of the Scott County Metro area is served by Iowa-American Water Company, a private water utility. Fire hydrants that are part of Iowa-American Water System are now flushed annually to check for hydrant problems.

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
0.89	0.78	0.60	0.20	2.47

Evaluation Criteria	Description
	Small structural fires are almost a daily occurrence in Scott County due to the urban nature of the county and concentration of residential structures. Nearly all fires are quickly extinguished by on-site personnel or local fire departments.
	<b>February 2009:</b> A three-story abandoned building containing 14 apartments burned at 14 <sup>th</sup> and Harrison Streets in Davenport. Arson was ruled as the cause of the fire. The 2006 estimated value of the building was \$263,000. The cost to the City of Davenport was \$83,600 to have the debris removed and remove the building foundation.
Historical Occurrence	<b>February 2008:</b> A Davenport apartment building burned. Six people had to be rescued and
Occurrence	over \$200,000 damage was done.  November 15, 2006: The City of Bettendorf had one of the worst fires in its history in a new structure at Eagle Heights Court. The structure was a 9,400 square foot, single family structure. The fire required the use over 80 firefighters from Bettendorf and seven other mutual aid fire departments plus communication specialists, police officers, citizen academy personnel, and Scott County Emergency Management volunteers. The loss claim was for \$3,141,094.80. The insulation company and a general contractor were found responsible for the fire spread and ordered to pay \$3.2 million to the insurance company.

Evaluation Criteria	Description
	February 20, 2001: The fire, described by Davenport Fire Chief Mark Frese as the largest Quad-City blaze in 25 years, gutted about 80 percent of the 990,000-square-foot warehouse known as the River Cities Industrial Center, about a mile northwest of the U.S. 61 and Interstate 80 interchange near Mt. Joy, Iowa. At least 40 Davenport, firefighters were on the scene, joined by crews from Eldridge, Bettendorf, Long Grove, and Donahue. It took over four hours to get the blaze under control due to lack of water pressure from the privately-owned water system on site. APAC Customer Services with 600 employees was among several tenants filling the former Caterpillar plant. The facility also was the location of one of John Deere's three nationwide consolidation and distribution centers for lawn and garden equipment. John Deere received an \$11 million insurance settlement for the fire during the first quarter of 2002. No cause of the fire was ever determined.  February 7, 1950: The third worst fatality hospital fire in the nation was the Mercy Hospital, St. Elizabeth Women's Psychopathic Building fire at 2:00 a.m. Forty-one patients died in the fire and an additional 25 were treated for burns or injuries. Most of the victims were mental patients and elderly. The facility was 7,000 square feet, 40-50 feet wide, and 155 feet long. It was 60-80 years old. The building had three stories and a basement. Most doors were locked and windows barred. The outside fire escape was blocked by barred windows. There were no evacuation procedures in place, and only 25 of 64 occupants could be rescued, two later died. There was no sprinkler system, no automatic fire detection system, no system to release locks on
	patient doors, and windows should have been barred on inside with fastenings that can be quickly released by firefighters.
Probability	Much of the fire prevention efforts have gone into nonresidential fires, and the results have been highly effective. Even with an increase in the prevention efforts in residential fires, both residential and nonresidential fires will continue to occur. During colder months, clogged chimneys and faulty furnaces and fire places can increase the probability of structural fires. Twenty-five percent of structure fires in non-residential structures from 2003-2006 were caused by contained trash or rubbish. Cooking equipment came in second at 17%, and heating equipment was third at 9%. Arson is another cause of structural fires in the county. The county has had a convicted serial arsonist who set 12 separate apartment fires over six months in the Kimberly Club Apartment complex. The Blackhawk Hotel in downtown Davenport suffered significant damage in a fire caused by a meth lab in one of the guest rooms. Nationally, approximately 5% of all structural fires are intentionally set. From 2003-2006, 8% of non-residential structure fires were intentionally set nationally. Based on the historical occurrences listed above for the City of Davenport, an average of \$452,740 in damages per year are caused by structural fire.
Vulnerability	Older structures with outdated electrical systems not built to current fire codes are particularly vulnerable to fire. Combustible building materials obviously are more vulnerable than structures constructed of steel or concrete. Structures without early detection devices are more likely to be completely destroyed before containment by response agencies. Structures in areas served by older, smaller, or otherwise inadequate water distribution infrastructure, such as water mains and hydrants, are also at significant risk. Problems vary from location to location, number of empty structures, poverty, education, and demographics. In the U.S. based on 2003-2007 data, the very young and very old are at highest risk from home fires. Males are at higher risk than females. Black individuals are at higher risk than Whites and Hispanics who are at higher risk than Asian-Americans. Adults 85 and older are at the highest risk in fires caused by cooking equipment with a risk 4.5 times that of the general public.
Location	A fire of this type is most likely to occur within the urbanized area of Scott County.
Severity	A) Health and safety of persons in affected areas: Based on national averages in the 1990s, there is one death for every 119 residential structure fires and one injury for every 22 residential fires. In nonresidential fires, there is one death for every 917 fires, one injury for each 52 fires. Statistically, in 2006, Iowa had 10.8 fire-related deaths per million people. This is down from 1999 where Iowa had 15 fire-related deaths per million people. The national average in 2006 was 13.2 deaths per million people. Nationally, arson fires resulted

Evaluation Criteria	Description
	<ul> <li>in an average of approximately 290 deaths, 850 injuries, and \$533 million in property loss each year. Scott County has had at least one fatality fire each year 2000-2009 according to the Davenport Fire Investigator.</li> <li>B) Health and safety of response personnel: In the U.S., about 100 firefighters die each year in duty-related incidents. In 2008, the number was 104. The top two reasons for death were</li> </ul>
	internal trauma (38.5%) and cardiac arrest most likely caused by exertion and stress (34.6%). Scott County has lost several firefighters in its history, and many firefighters have been injured fighting fires. There were 79,700 firefighter injuries nationally in 2008 with almost half the injuries occurring during fireground operations. The most recent very serious injury in Scott County happened on the Davenport Fire Department in 2008. A fall from a ladder at a structure fire left a firefighter partially paralyzed and unable to walk.
	C) Continuity of operations: Only in rare cases would a structural fire affect continuity of operations. These cases could be fire at a critical facility, data storage areas, communications, infrastructure, etc. Structural fires do cause loss of continuity of operation to the businesses affected. The most substantial example of this in Scott County was the River Cities Industrial Plant fire. Housed in a section of the building was one of only three distribution facilities in the country for John Deere's lawn and garden equipment. The fire occurred when the facility was full of equipment ready to be shipped to dealers at the start of the spring season. The building also housed APAC Customer Services, one of Davenport's largest employers with over 600 employees. Three shifts of employees were not able to take customer service calls for their clients.
	D) Property, facilities, and infrastructure: On average, each residential fire causes nearly \$11,000 of damage. Each nonresidential fire causes an average of \$20,000 in damage. Damage per fire is 40-70% lower in properties with sprinkler systems. (National Fire Protection Association 2003-2007 statistics for fires with sprinklers.)
	E) Delivery of services: Fires can affect critical services such as electricity and water pressure.  Very large structure fires use a significant number of personnel and equipment, thereby reducing availability to respond to multiple calls for assistance.
	F) Environment: Large structure fires containing environmentally hazardous materials could have an impact on air quality. Large amounts of potentially polluted water used to contain the fire could run off into nearby drainage areas or streams.
	G) Economic and financial conditions: Localized effects.
	<ul> <li>H) Regulatory and contractual obligations: No significant impact known.</li> <li>I) Reputation of the entity: Structural fires are common occurrences, hence little damage is done to reputations for routine fires. The loss of large structure or lives could produce questions of insufficient personnel available to fight the fire, insufficient training of the personnel, insufficient firefighting equipment, and insufficient public resources such as</li> </ul>
	water supply or working hydrants.  While fires usually start with little or no warning time, alert devices can allow time for
Speed of Onset	responders to contain the fire and allow occupants to evacuate the area.

Sources		
United States Fire Administration	http://www.usfa.fema.gov	
Iowa Division of State Fire Marshal	http://www.state.ia.us/government/dps/fm/	
National Fire Protection Association	http://www.nfpa.org/	
Institute for Business and Home Safety	http://www.ibhs.org/building_codes/	
CBS News Disaster Links	http://www.cbsnews.com/digitaldan/disaster/disasters.shtml	
Disaster Center.com	http://www.disastercenter.com	
U.S. Department of Homeland Security	U.S. Fire Administration National Fire Data Center Topical Fire	
	Report Series - Intentionally Set Fires in Residential Buildings,	
	Volume 9, Issue 8 / December 2009	
	http://www.usfa.dhs.gov/downloads/pdf/tfrs/v9i8.pdf	
Local Sources	Various	

# Thunderstorm and Lightning

**Definition:** Atmospheric imbalance and turbulence resulting in heavy rains, winds reaching or exceeding 58 mph, tornadoes, or surface hail at least 0.75 inches in diameter.

**Description:** Atmospheric imbalance and turbulence caused by: 1) the rapid rising of unstable warm air into the atmosphere, 2) a sufficient amount of moisture to form clouds and produce rain, and 3) the collision of separate weather fronts (warm and cold) creating an upward lift of air currents. These conditions may result in thunder, heavy rains (which may cause flash flooding), and strong winds reaching or exceeding 58 mph resulting in tornadoes or surface hail of at least 0.75 inches in diameter. When the water rises to between 15,000 and 25,000 feet above sea level, it begins a chemical process to turn the water into ice. This process creates a buildup of positive and negative charges that produce a buildup of electricity that releases towards the earth in 50-yard sections called ladders that are searching for a source of conduction. When a suitable source is located, the connection is made creating a circuit. When the circuit is complete, the charge is then transferred from the cloud where it was formed, to the site in the ground where the circuit was made. A lightning bolt can approach a temperature of 50,000 degrees Fahrenheit at the site of impact in a split second. This rapid heating, expansion, and cooling of air near the lightning bolts create thunder. Thunderstorms are common in Iowa and can occur singly, in clusters, or in lines. Most thunderstorms produce only thunder, lightning, and rain. Severe storms however, can produce tornadoes, high straight-line winds above 58 mph, microbursts, lightning, hailstorms, and flooding. High straight-line winds, which can often exceed 60 mph, are common occurrences and are often mistaken for tornadoes. Lightning occurs with all thunderstorms even if the buildup of electricity isn't strong enough to send a bolt to the ground.

**Maximum Extent:** Severe thunderstorms can be expansive with areas of localized severe conditions. Most severe thunderstorm cells are 5 to 25 miles wide with a larger area of heavy rain and strong winds around the main cell. The following available information from the National Climatic Data Center gives an indication of the magnitude of such events:

<b>Event Date</b>	<b>Location</b>	<b>Fatalities</b>	<u>Injuries</u>	<b>Property Damage</b>
05/10/1996	Park View - Plainview	0	0	\$1,000,000
06/21/1997	County-wide	1	5	\$230,000
08/03/1997	Davenport-Bettendorf	0	3	\$110,000
08/20/2003	County-wide	0	0	\$113,000

Hazard Score Calculation				
Probability	Magnitude/Severity	Warning Time	Duration	Weighted Score
1.79	0.40	0.44	0.11	2.74

Evaluation Criteria	Description
Historical Occurrence	The National Climate Data Center records 220 thunderstorm events and an additional 13 lightning events for Scott County dating from 1959. The greatest number of fatalities and injuries recorded for one event was on June 21, 1997 with one fatality and 5 injuries. The highest recorded property damage of \$1 million was recorded on May 10, 1996.
	May 10, 1996: This event created wind gusts of 85 knots that affected 150 buildings in the Park View area causing approximately \$1 million in damage. Park View was just a part of a larger

Evaluation Criteria	Description
	swath of damage spreading from Cedar County, IA to Whiteside County, IL.
	June 21, 1997: In this most deadly severe thunderstorm event, thunderstorm winds plowed a broad path of destruction over northern Scott County and along the Wapsipinicon River. Many buildings and trees were destroyed causing several injuries. Downed trees also caused widespread power outages and blocked roads. Strong winds also struck the Davenport area damaging aircraft at the air show and killing one person when a tree fell on the tent in which he was sleeping.
	<b>August 3, 1997:</b> A line of severe thunderstorms brought wide-spread damaging winds and heavy rains to Scott County. A National Weather Service Radar was damaged due to a lightning strike, and 46,000 customers were left without power in the Quad Cities area due to downed power lines. Winds were also strong enough to snap cables docking a Bettendorf casino boat. Overall, the storm caused \$100,000 in damage.
	<b>September 11, 2000:</b> A squall line settled over the Iowa Quad Cities producing winds of 70 mph and heavy rains in excess of 3 inches. The cities of Bettendorf, Pleasant Valley, Riverdale and Davenport were hit the hardest with numerous trees and power lines knocked down. The storms also did considerable damage to many of the crop areas in the county, with as much as 10 percent of the corn crop damaged in some areas. Total property damage amounted to \$40,000 with crop damage topping \$300,000.
	<b>August 20, 2003:</b> This storm saw winds of 50 mph along the main gust front, breaking limbs from trees. Gusts of up to 92 mph were recorded at the National Weather Service Station office at the Davenport Airport, where winds tore off one third of the roof of the building, allowing rain to damage interior equipment. Hail of 0.88 inches was also recorded in this event. Total property damage was \$91,000.
	May 21, 2004: Perhaps the most costly lightning event occurred when severe storms developed north of a stationary front in eastern Iowa. The KDVN 88D radar was taken out by a lightning strike resulting in \$300,000 worth of damage. The damage to the radar was so extensive that upper air weather testing flights were missed for the next 22 days.
	<b>June 7, 2008:</b> Scattered thunderstorms moved northeast across eastern Iowa producing gusts of over 80 mph, downing trees and power lines in rural Scott County. The storm caused a total of \$61,000 in damage.
	<b>June 27, 2009:</b> A cold front that stretched across much of eastern Iowa caused torrential downpours, high winds, and hail in most of Scott County. Wind gusts in several areas reached over 60 mph causing downed trees and utility poles. The most destruction was seen in the vicinity of Princeton with \$25,000 in property damage.
Probability	Iowa experiences between 30 and 50 thunderstorm days per year on average. Based on historical data, Scott County can expect at least four to five thunderstorms with severe effects every year, making probability highly likely.
Vulnerability	Those in unprotected areas, mobile homes, or automobiles during a storm are at risk. Lightning and hail are dangers to people and livestock who are outdoors. Flash floods and tornadoes can develop during thunderstorms as well. Because thunderstorms may trigger additional natural hazards of lightning, hail, tornadoes and flash flooding, vulnerability may range from negligible to limited in rating, depending on the area and severity of the storm. The 2010 State of Iowa Hazard Mitigation Plan states that an annual average of \$165,824 in damage is caused by thunderstorm and lightning.
Location	Any area is vulnerable to the effects of thunderstorms and resulting additional natural hazards.
Severity	<ul> <li>A. Health and safety of persons in affected area: Affect on safety of persons can range from negligible to critical depending on severity of the storm and whether additional natural hazards are triggered.</li> <li>B. Health and safety of response personnel: Affect on safety of response personnel can range</li> </ul>

Evaluation Criteria	Description					
	from negligible to critical depending on severity of the storm and whether additional natural					
	hazards are triggered.					
	C. Continuity of operations: The continuity of operations depends on the severity and nature of					
	the storm. Heavy rains may cause street flooding and high winds may cause power outages.					
	Some thunderstorms may have no affect on operations.					
	D. Property, facilities, and infrastructure: Personal property may be damaged or destroyed by					
	heavy rains, high winds, lightning, and hail. The extent of damage depends on the severity					
	of the storm as well as accompanying natural hazards.  E. Delivery of services: Power outages may result from thunderstorms. Extent of interruptions					
	Delivery of services: Power outages may result from thunderstorms. Extent of interruptions depends on severity of storms.					
	F. Environment: Effects on the environment may range from negligible to minor or short-term.  The most common environmental effects relate to downed trees and other wind damage.					
	G. Economic and financial conditions: Effects are negligible to minor and are heavily reliant					
	on the development of additional natural hazards such as high winds and hail.					
	H. Regulatory and contractual obligations: None known.					
	I. Reputation of the entity: No impact.					
	Some thunderstorms can be seen approaching, while others hit without warning. The National					
	Weather Service issues severe thunderstorm watches and warnings. These messages are broadcast over NOAA Weather Alert Radios and area TV and radio stations. Advances in					
Smood of Orgat						
Speed of Onset	weather prediction and surveillance have increased warning times. The resolutions of radar and					
	Doppler radar have increased the accuracy of storm location and direction. Weather forecasting					
	and severe weather warnings issued by the National Weather Service usually provide residents					
	and visitors alike adequate time to prepare. Isolated problems arise when warnings are ignored.					

Sources			
State of Iowa, IHSEMD Iowa Hazard Mitigation Plan, 2007			
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms		

## Tornado

**Definition:** A violent, destructive, rotating column of air taking the shape of a funnel-shaped cloud that progresses in a narrow, erratic path. Rotating wind speeds can exceed 300 mph and travel across the ground at average speeds of 25 to 30 mph.

**Description:** A tornado is a violent whirling wind characteristically accompanied by a funnel-shaped cloud extending down from a cumulonimbus cloud. A tornado can be a few yards to about a mile wide where it touches the ground. An average tornado, however, is a few hundred yards wide. It can move over land for distances ranging from short hops to many miles, causing great damage wherever it descends. The funnel is made visible by the dust sucked up and by condensation of water droplets in the center of the funnel.

**Maximum Extent:** The rating scale use to rate tornado intensity is called the Fujita Scale that estimates wind speeds based on the damaged caused by the tornado. This scale has been recently revised as the Enhanced Fujita (EF) Tornado Scale, which includes additional enhanced descriptions of damage to multiple types of structures and vegetation with photographs, a PC-based expert system, and enhanced training materials. The EF scale is still a set of wind estimates based on damage. It uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to 28 indicators. The Enhanced Fujita scale replaced the original as of February 1, 2007 in all tornado damage surveys done in the United States.

Hazard Score Calculation					
Probability Magnitude/Severity Warning Time Duration Weighted Score					
0.84	0.79	0.58	0.16	2.36	

The Enhanced Fujita (EF) Tornado Scale					
Original Fujita Scale			New Operational EF Scale *		
F Number	Fastest 1/4 mile Gust (mph)	3 second Gust (mph)	EF Number	3 second Gust (mph)	
0	40-72	45-78	0	65-85	
1	73-112	79-117	1	86-110	
2	113-157	118-161	2	111-135	
3	158-207	162-209	3	136-165	
4	208-260	210-261	4	166-200	
5	261-318	262-317	5	over 200	

<sup>\*</sup> The New Operational EF Scale is currently used by the National Weather Service (NWS).

Evaluation Criteria	Description				
	According to the National Climatic Data Center, there are 43 tornado reports for Scott County between 01/01/1950 and 05/31/2009. This number does not clearly represent individual tornado events, since there are duplicate reports for the same event or, in one case, multiple tornadoes on the same day. By analyzing the reports, there appears to be 26 separate tornado events with an average interval of three years over the reporting period. Most of the reports are of F0 or F1 tornados.				
	May 5, 1995: An F3 tornado touched down between Stockton and New Liberty. The tornado destroyed 26 farm buildings and caused damage to nine homes. Debris from the tornado covered nearby Interstate 80, causing traffic delays. Damages were around \$3 million. A disaster emergency was proclaimed by the governor for Scott County.				
Historical	<b>May 18, 1997:</b> A brief tornado touchdown near the intersection of 18 <sup>th</sup> Street and Middle Road in Bettendorf that was part of a very damaging hailstorm.				
Occurrence	May 10, 2001: A tornado touched down in Le Claire and was on the ground for five minutes carving a path towards the Mississippi River. Numerous trees and power lines were down with damages around \$75,000.				
	June 14, 2001: An F2 tornado touched down around the Muscatine-Scott County border near Highway 22 then moved northeast into Scott County where it ripped off the roofs of three homes in Blue Grass. The same storm also produced an F1 tornado in Bettendorf, just east of the Interstate 74-Highway 67 intersection. That tornado was on the ground for three minutes and tore off one roof.				
	<b>April 13, 2006:</b> An F1 tornado began north of Interstate 80, 4 miles west of LeClaire. The tornado traveled east crossing 257 <sup>th</sup> Avenue just south of 205 <sup>th</sup> Street. The tornado damaged buildings on a nearby farm. Damages were around \$60,000.				
Probability	Historically, 40-50 tornadoes are confirmed in Iowa per year. Developed areas occupy a growing portion of Iowa and stand a likely chance of having a tornado occur in the next 10 years. Based on an average of reported events, Scott County experiences a tornado touchdown approximately once every three years.				
Vulnerability	Those most at risk from tornadoes include people living in mobile homes, campgrounds, and other dwellings without secure foundations or basements. People in automobiles are also very vulnerable to tornadoes. The elderly, very young, and the physically and mentally handicapped are most vulnerable because of lack of mobility to escape the path of destruction. People who may not understand the watches and warnings due to language barriers are also at risk. The 2010 State of Iowa Hazard Mitigation Plan reports that \$602,600 in annual damages are caused by tornados in Scott County.				
Location	Generally the destructive path of a tornado is only a couple of hundred feet in width, but stronger tornadoes can leave a path of destruction up to a mile wide. Normally a tornado will stay on the ground for no more than 20 minutes. However, one tornado can touch ground several times in different areas. Large hail, strong straight-line winds, heavy rains, flash flooding, and lightning are also associated with severe storms and may cause significant damage to a larger area.				
Severity	<ul> <li>A. Health and safety of persons in affected areas: Injury or death related to tornadoes most often occurs when buildings collapse, or people are hit by flying objects or are caught trying to escape the tornado in a vehicle.</li> <li>B. Health and safety of response personnel: Response personnel are exposed to the same risk as the general public when caught in the storm without shelter.</li> <li>C. Continuity of operations: Tornadoes can destroy government facilities just as they could other property. Disruption of critical services can also affect operations. Employees may be affected and unable to attend work-related issues.</li> <li>D. Property, facilities, and infrastructure: Effects can range from broken tree branches, shingle damage to roofs, and some broken windows, as well as complete destruction and</li> </ul>				

Evaluation Criteria	Description					
	disintegration of well-constructed structures, infrastructure, and trees.					
	E. Delivery of services: Tornadoes can affect many critical services, mainly electrical power.					
	Buried services are not as vulnerable, but can be affected by the system components that are above ground.					
	F. <i>Environment</i> : Tornadoes are naturally-occurring phenomena. Damages to the environment could result from spills and other contaminants from the built environment.					
	G. Economic and financial conditions: Economic effects can result from direct damages to					
	facilities or business disruption from the lack of critical services such as power, gas, or water.					
	H. Regulatory and contractual obligations: Debris removal is a vital service that is often too					
	vast for the jurisdiction to do without contractual assistance. These plans should be in and monitored.					
	I. Reputation of the entity: Adequate warning is key to the positive reputation of the					
	jurisdiction. Responding in a timely manner and reconstructing the community is also					
	important. Bringing critical services back on line quickly will ensure that residents can					
	begin their personal recovery process sooner.					
	Tornadoes strike with an incredible velocity. Wind speed may exceed 300 miles per hour and					
	the storm can travel across the ground at more than 70 mph. The advancement in weather					
Speed of Onset	forecasting has allowed watches to be delivered to those in the path of these storms for up to hours in advance. The best lead time for a specific severe storm and tornado is about 30					
Speed of Offset	minutes. Tornadoes have been known to change paths very rapidly, thus limiting the time in					
	which to take shelter. Tornadoes may not be visible on the ground due to blowing dust or heavy					
	rain and hail.					

Sources			
National Climatic Data	http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/educational/fujita.html		
Center/Enhanced Fujita Scale	nttp://www.ncac.noaa.gov/oa/sateutte/sateutteseye/eaucationai/jujita.ntmi		
National Climatic Data Center	http://lwf.ncdc.noaa.gov/oa/climate/severeweather/tornadoes.html and		
National Chinatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms		
The State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007		

## **Transportation Hazardous Materials Incident**

**Definition:** Accidental release of chemical substances or mixtures that presents danger to the public health or safety as a result of transportation.

**Description:** A hazardous substance is one that may cause damage to persons, property, or the environment when released to soil, water, or air. Chemicals are manufactured and used in ever increasing types and quantities. As many as 500,000 products pose physical or health hazards and can be defined as "hazardous chemicals." Each year, over 1,000 new synthetic chemicals are introduced. Hazardous substances are categorized as toxic, corrosive, flammable, irritating, or explosive. Hazardous materials incidents generally affect a localized area, and the use of planning and zoning can minimize the area of impact.

**Maximum Extent:** Most of the hazardous materials incidents are localized and are quickly contained or stabilized by the highly-trained fire departments and hazardous materials teams. Depending on the characteristics of the hazardous material or the volume of the product involved, the affected area can be as small as a room in a building or as large as 5 square miles or more. Many times, additional regions outside the immediately affected area are evacuated for precautionary reasons. More widespread effects occur when the product contaminates the municipal water supply or water system such as a river, lake, or aquifer.

Hazard Score Calculation						
Probability	Probability Magnitude/Severity Warning Time Duration Weighted Score					
1.31	0.49	0.60	0.18	2.58		

Evaluation Criteria	Description				
Historical Occurrence	According to the Iowa Department of Natural Resources Chemical Spills Report Database, 200 chemical spills were reported as transportation related incidents within Scott County between 1995 and February of 2010. Costs associated with spill clean-ups were not reported.				
	Based on information provided from the Iowa Department of Natural Recourses Chemical Spil Report Database, the City of Davenport has the highest probability of a transportation-related hazardous materials incident. The table below shows the number of hazardous materials incidents at a fixed facility between 1995 and February of 2010 by jurisdiction and the average number of incidents per year.  Transportation Hazard Materials Incidents by Jurisdiction				
	Jurisdiction	Transportation Hazardous Materials Incidents	Average Number of Incidents per Year		
Probability	City of Bettendorf City of Blue Grass	35	2.47		
	City of Buffalo City of Davenport	1 88	0.07 6.21		
	City of Dixon	1	0.07		
	City of Donahue City of Eldridge	0 2	0.14		
	City of LeClaire	11	0.78		
	City of Long Grove City of Maysville	3	0.14		
	City of McCausland	0	0.21		

Evaluation Criteria	Description				
	City of New Liberty	2	0.14		
	City of Panorama Park	0	0.00		
	City of Princeton	3	0.21		
	City of Riverdale	5	0.35		
	City of Walcott	23	1.62		
	Unicorporated Area	22	1.55		
Vulnerability  Location	A hazardous materials incident can occur almost anywhere, so any area is considered vulnerable to an incident. People, pets, livestock, and vegetation in close proximity to transportation corridors and populations downstream, downwind, and downhill of a released substance are particularly vulnerable. Depending on the characteristics of the substance released, a larger area may be in danger from explosion, absorption, injection, ingestion, or inhalation. Occupants of areas previously contaminated by a persistent material may also be harmed either directly or through consumption of contaminated food and water. The IA DNR Chemical Spills report does not include costs associated with damage and clean-up of hazardous material incidents. Therefore estimating potential losses is difficult at this time.				
Locution					
Severity					
Speed of Onset	timely and effective response will determine the impact to the jurisdiction's reputation.  When managed properly under regulations, hazardous materials pose little risk; however, when handled improperly or in the event of an accident, hazardous materials can pose a significant risk to the population. Hazardous materials incidents usually occur very rapidly with little to no warning. Even if reported immediately, people in the area of the release have very little time to be warned and evacuated safely. Public address systems, television, radio, and the NOAA Weather Alert Radios are used to disseminate emergency messages about hazardous materials incidents.				

Sources				
State of Iowa	Iowa Hazard Mitigation Plan, 2007			
City of Davenport	Pre-Disaster Mitigation Plan, February 2007			
Iowa Department of Natural Resources	Chemical Spills Reporting Database 1/1/1995-2/15/2010			
U.S. Department of Transportation	http://www.hazmat.dot.gov			
Federal Railroad Administration	http://www.fra.dot.gov/safety/hazmat.htm			

## **Transportation Radiological Materials Incident**

**Definition:** An incident resulting in a release of radioactive materials during transportation.

**Description:** The transportation of radioactive materials through Scott County over the interstate highway system is considered a radiological hazard. The transportation of radioactive materials by all means of transport is licensed and regulated by the federal government. As a rule, there are two categories of radioactive materials that are shipped over the interstate highways. Low-level waste consists primarily of materials that have been contaminated by low-level radioactive substances, but pose no serious threat, except through long-term exposure. These materials are shipped in sealed drums within placarded trailers. The danger to the public is no more than a wide array of other hazardous materials. High level waste usually in the form of spent fuel from nuclear power plants is transported in specially constructed casks, which are built to withstand a direct hit from a locomotive. When these materials are moved across Iowa highways, Iowa officials are notified and appropriate escorts are provided.

**Maximum Extent:** Only in an all-out nuclear attack on the U.S. would the county face community-wide exposure to radioactive substances. Other than a transportation incident involving large amounts of high-level radioactive materials, radiation exposure will be limited to extremely localized areas.

Hazard Score Calculation					
Probability Magnitude/Severity Warning Time Duration Weighted Score					
0.47	0.60	0.60	0.24	1.91	

Evaluation Criteria	Description
Historical Occurrence	There have been no occurrences of transportation radiological incidents reported in Scott County or the State of Iowa.
Probability	Transportation accidents are the most common type of incident involving radioactive materials because of the sheer number of radioactive shipments. Operators of facilities that use radioactive materials and transporters of radioactive waste are circumspect in packaging, handling, and shipment of the radioactive waste. Since they are closely regulated by a variety of federal, state, and local organizations, the likelihood of an incident is remote. The State Hazard Mitigation Team (SHTM) has estimated that the probability of a transportation radiological incident occurring in Iowa in the next year is between 1% and 10%.
Vulnerability	Transportation of radioactive materials is mostly low-level waste consisting primarily of materials that pose no serious threat except through long-term exposure. Those working with or near sources of radiation are at a greater risk than the general population of Scott County. Those responding to a radiological incident should be trained in recognizing a radiological incident and minimizing exposure to radioactive materials. No occurrences of transportation of radiological insurances have been reported in Scott County, therefore it is difficult to estimates the potential loss if an incident were to occur.
Location	An accident involving the transportation of hazardous materials can occur anywhere within Scott County.
Severity	A. Health and safety of persons in affected areas: Time, distance, and shielding minimize radiation exposure to the body. Nuclear radiation above normal levels could be a health and safety consideration because of its ability to damage human cells biologically as well as its long-lasting effect on the environment. Depending on the level of exposure, radiation can cause loss of life, long and short-term health effects, and property damage from

Evaluation Criteria	Description
	contamination, and disruption of business because of potential evacuations. Despite the frequency of shipments, there have been no known serious nuclear radiation exposures resulting from transportation accidents. This is due to the nature of the materials being transported, protective packaging, and labeling and response information.  B. Health and safety of response personnel: Specialized training is needed to respond to these types of incidents. If inadequately trained personnel attempt to respond, the effects could be the same as those for the general public exposed to toxic materials. Proper training and equipment greatly reduce the risk to response personnel.  C. Continuity of operations: None directly.  D. Property, facilities, and infrastructure: Property damage can result from contamination and disruption of business because of evacuations.  E. Delivery of services: Depending on the severity of the incident, transportation routes could be temporarily closed.  F. Environment: Damage to the environment can be very long-lasting depending on the half-life of the products involved and the severity of the incident.  G. Economic and financial conditions: None directly.  H. Regulatory and contractual obligations: None directly.  I. Reputation of the entity: Reputation of the county can be very damaged because of the high profile of these events. The negative impact can be felt for decades following a
	contamination.  A radiological incident in Scott County would result from an incident in handling or transporting
Speed of Onset	radioactive materials. This incident would occur with little or no warning. Ionizing radiation cannot be seen, smelled, heard, or detected with human senses. Detection instruments are needed to indicate the existence of dangerous radiation. Distance from the incident would dictate the amount of time needed to avoid exposure from damaging radiation. The federal Department of Transportation requires the use of placards on transport vehicles to indicate to the public and first responders the types of materials on board.

Sources			
State of Iowa	Iowa Hazard Mitigation Plan, 2007		
City of Davenport, IA	Davenport Pre-Disaster Mitigation Plan, February 2007		

## Waterway Incident

**Definition:** An accident involving any water vessel that threatens life or adversely effects community capability to provide emergency services.

**Description:** Waterway incidents will primarily involve pleasure craft on area rivers and lakes. In the event of an incident involving a water vessel, the greatest threats would be drowning, fuel spillage, and property damage. Water rescue events would largely be handled by first responding agencies. Waterway incidents may also include events in which persons fell through the ice on partially frozen water bodies.

**Maximum Extent:** The maximum extent of a waterway incident would be limited. Effects would not extend beyond the immediate incident scene. The only exception would include a search and rescue event that could expand downstream. In the case of a hazardous material being released to the waterway, the impact could expand considerably (See "Transportation Hazardous Materials Incident" profile for more details).

Hazard Score Calculation					
Probability Magnitude/Severity Warning Time Duration Weighted Score					
1.02	0.31	0.49	0.18	1.98	

Evaluation Criteria	Description
Historical Occurrence	The Mississippi River is subject to both commercial incidents as well as recreational incidents. Commercial waterway incidents are tracked by the U.S. Coast Guard. Since 1998, there have been 30 commercial incidents that have occurred on the Mississippi River between river miles 469 to 506. The most common incident is barge grounding, and the most common location is around the Burlington Northern Santa Fe Crescent Railroad Bridge that crosses the river approximately at Division Street in Davenport, IA into Rock Island, IL. All commercial incidents have had minimal damage and no loss of lives. Recreational waterway incidents are tracked by the Department of Natural Resources. Since 1998, there have been 32 recreational waterway incidents. The most common type of incident is a boat hitting an object, followed by two boats (including personal watercrafts) colliding. Twenty-eight percent of the recreational incidents involved alcohol. There has been one fatality, and the majority of incidents are property damage. A complete list of commercial and recreational incidents is in a table at the end of this profile.
Probability	The Mississippi River is used by commercial boaters as well as recreational boaters and approximately 37 river miles adjacent to the county. Over the past 10 years, the Mississippi River has averaged approximately three commercial incidents per year and approximately three recreational incidents per year. There will always be a chance for waterway incidents to occur in the county; its location and heavy use put its chances of an incident high. While some incidents cannot be prevented, others can be prevented or minimized with proper boater education classes.
Vulnerability	Scott County is bordered by one of the largest rivers in the world, the Mississippi River. The Mississippi River is a widely used river by both commercial and recreational boaters, anytime there is a boat on the water there is a chance of an incident. The environment is also vulnerable to the materials that are transported on the river as well as hazardous material spills that could be the result of an accident. Damages were not reported for each incident; however the average damage for commercial vehicles was \$2,240 while the average damage for a recreational vehicle is \$25,478.

Evaluation Criteria	Description
Location	The Mississippi River forms the eastern border of Scott County and runs along the cities of Bettendorf, Buffalo, Davenport, LeClaire, Pleasant Valley, Princeton, and Riverdale. Scott County is approximately located between Mississippi River miles 469-506. Reference Map III-15 Waterway Mile Marker and Commercial and Recreation Waterway Incidents table for more information.
Severity	<ul> <li>A. Health and safety of persons in affected areas: Effects would be limited to personal injuries and possibly death of the persons directly involved.</li> <li>B. Health and safety of response personnel: Small fuel spills could result from damaged watercraft.</li> <li>C. Continuity of operations: Minor disruption to operations may occur due to the possibility of conflicting operations in the area. Site may be restricted until the rescue, salvage, or possible cleanup/decontamination operations have been completed.</li> <li>D. Property, facilities, and infrastructure: Property damage would be restricted to the craft involved.</li> <li>E. Delivery of services: Minor disruption to operations may occur due to the possibility of conflicting operations in the area. Site may be restricted until the rescue, salvage, or possible cleanup/decontamination operations have been completed.</li> <li>F. Environment: Environmental damage could affect aquatic flora and fauna, as well as water quality (if hazardous materials are released from boats or barges).</li> <li>G. Economic and financial conditions: Varies.</li> <li>H. Regulatory and contractual obligations: The Army Corps of Engineers is responsible for the upkeep on the county waterways, as well as accurately recording and mapping topographical data. They then must locate and designate dangerous areas in the water and mark them accordingly. The Department of Natural Resources monitors watercraft regulations and serves as an aquatic police force (shore patrol) in the county.</li> <li>I. Reputation of the entity: An incident/accident may only affect the watercraft operator's reputation directly. No other entity's reputation may be scarred unless the incident/accident involved a single watercraft and the Army Corps of Engineers did not accurately mark the area a danger zone. The waterway's reputation may then have a scar due to the threat of other possible unmarked danger zones.</li> </ul>
Speed of Onset	Incidents would occur with little or no warning. Leading causes of waterway incidents are inclement weather and operator error. Accidents can also occur with commercial vessels in periods of high or low waters.

	Commercial Waterway Incidents					
Date	<b>Body of Water</b>	Location	River Mile	River Flow	Incident	
7/27/1998	Mississippi River	Bettendorf	490.0	Low Water	M/V Grandma Gert was grounded.	
11/25/1998	Mississippi River	Bettendorf	486.0	Low Water	M/V Darin Adrian starboard stern barge bumped bottom of inside channel causing holes to starboard wing tanks.	
5/5/1999	Mississippi River	Bettendorf	491.0	High Flow Rate	M/V J.W. Hershey was southbound, while navigating inside buoy line current starboard stern barge came in contact with river bottom.	
5/16/1999	Mississippi River	Davenport	484.0	Low Water	M/V Coral Dawn was waiting for L&D 15 when the barges grounded. Minor damages totaling \$350.00	
6/15/1999	Mississippi River	Lock and Dam 15	482.0	High Flow Rate	M/V Nathen was southbound locking through L&D 15 when barge hit the bullnose, vessel was then being pulled into rollerdams. Vessel	

Commercial Waterway Incidents					
Date	<b>Body of Water</b>	Location	River Mile	River Flow	Incident
			Nine		attempted to backup but current was too strong, forced to release barge to save vessel. Barge came to rest on the #2 gate. Damage to lock was \$3000 and damage to barge was \$7000. No other damage or pollution was reported.
9/1/1999	Mississippi River	Davenport	476.0	Low Water	M/V Darin Adrian was northbound grounded near river mile 476. Low water and buoys off station were blamed for incident.
11/30/1999	Mississippi River	Pleasant Valley	493.0	Low Water	M/V Starfire was southbound locking through L&D 14; the starboard steering rudder struck ground causing \$350.00 in damages.
3/12/2000	Mississippi River	Pleasant Valley	492.0	Low Water	M/V Decatur Lady was southbound departing L&D 14, maneuvering around construction barges when barge grounded. Barge received 2 holes in the wing void with damages around \$500.00.
5/25/2000	Mississippi River	LeClaire	497.0	Low Water	M/V Decatur Lady was northbound, during a passing situation with another vessel the barge became grounded.
6/10/2000	Mississippi River	Pleasant Valley	493.0	Low Water	M/V Crimson Glory was southbound waiting for L&D 15 when vessel grounded.
6/15/2000	Mississippi River	BSNF Crescent Railroad Bridge	481.0	High Flow Rate	M/V Gladiator was northbound, barge landed on fencing bridge.
7/17/2000	Mississippi River	Bettendorf	491.0	Low Water	M/V Julies was northbound was waiting for L&D 14 when vessel drifted towards red buoy line and starboard barge grounded, swinging the rest of the tow around and grounding the remaining barges.
8/29/2000	Mississippi River	Bettendorf	488.0	Low Water	M/V Lloyd Beesecker was southbound when center lead barge grounded mid-channel. Portside wings of barges had damage.
10/5/2000	Mississippi River	Pleasant Valley	493.0	Low Water	M/V Richard C. Young was northbound when vessel came into contact with the river bottom. Minor damages to barge.
5/25/2001	Mississippi River	Lock and Dam 15	482.9	High Flow Rate	M/V George King bumped into the upper end wall of L&D 15 breaking wires on the first coupling. There was no damage to lock, vessel, or barges.
6/17/2001	Mississippi River	BSNF Crescent Railroad Bridge	481.0	High Flow Rate	M/V Washington was southbound, barge came in contact with bridge.
6/30/2001	Mississippi River	Davenport	485.0	High Flow Rate	M/V Sharon Wildman was southbound when starboard barges came in contact with right descending pier.

	Commercial Waterway Incidents					
Date	<b>Body of Water</b>	Location	River Mile	River Flow	Incident	
8/3/2001	Mississippi River	Bettendorf	486.0	Low Water	M/V Joe Pat Eckstein was northbound when stern barge touched ground; 4 barges broke off landing on left bank.	
8/4/2001	Mississippi River	Bettendorf	489.0	Low Water	M/V Jane Huffman northbound and was grounded by a rock. Vessel was grounded for 19 hours.	
8/15/2001	Mississippi River	Davenport	484.0	Low Water	Channel Cat II (small passenger vessel) grounded in a marina. Marina was closed due to low water, pilot stated he had seen water rise and believed it was good water. Damages included breaking off outboard drive.	
5/1/2002	Mississippi River	South of Lock and Dam 14	493.3	High Flow Rate	M/V Joe Pat Eckstein was exiting L&D 14 when a strong draft pushed tow against wall causing a scratch in upper wall of Lock.	
5/16/2002	Mississippi River	BSNF Crescent Railroad Bridge	481.0	High Flow Rate	M/V Julie S was southbound starboard barge came in contact with bridge.	
7/27/2002	Mississippi River	Lock and Dam 15	483.0	High Flow Rate	M/V Lady Lone Star was southbound, entering the lock gate an outdraft pulled the vessel outwards, causing the head of the toe to be in the wrong direction.	
8/22/2002	Mississippi River	LeClaire	497.5	Low Water	M/V Show Me State ran aground and 4 barges broke loose.	
5/23/2003	Mississippi River	BSNF Crescent Railroad Bridge	481.0	High Flow Rate	M/V Mary Evelyn-Allison was southbound, starboard stern of tow rubbed the bridges approach cell.	
9/8/2003	Mississippi River	BSNF Crescent Railroad Bridge	482.0	Low Water	M/V Robin B. Ingram-Allison was southbound when barge rubbed left hand pier of bridge.	
9/23/2003	Mississippi River	BSNF Crescent Railroad Bridge	482.0	Low Water	M/V Darin Adrian was southbound approaching the bridge when the lead barge bumped the bottom causing a crack in the barge.	
6/24/2004	Mississippi River	BSNF Crescent Railroad Bridge	481.0	High Flow Rate	M/V Butch Barras was southbound, starboard barge made contact with upper cell of bridge.	
4/8/2005	Mississippi River	South of Lock and Dam 14	493.3	High Flow Rate	M/V James F. Neal southbound, had just departed from L&D 14. Current caused vessel to right side of channel where boat bumped in shallow water. Vessel was backed up to stop tow when starboard side of tow grounded; 6 barges broke loose and 9 barges grounded.	
4/12/2005	Mississippi River	BSNF Crescent Railroad Bridge	481.4	High Flow Rate	M/V Andrea Leigh Allison was southbound made contact with the left descending span of the bridge.	

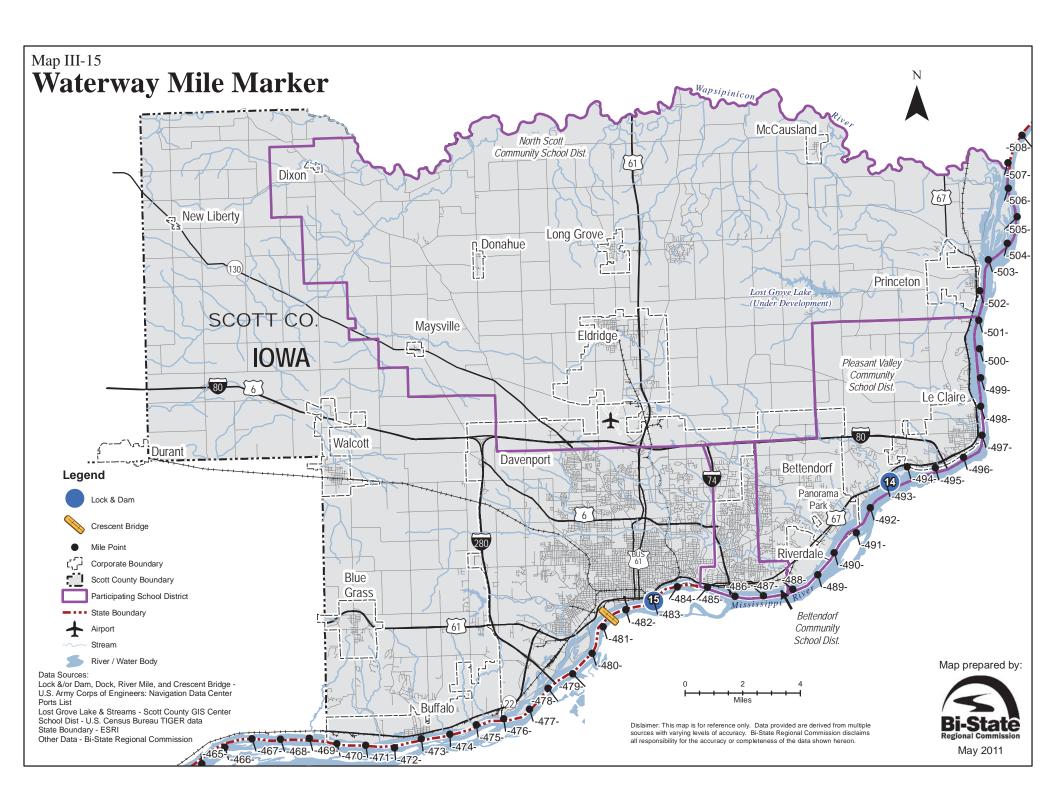
Source: U.S. Coast Guard - Upper Mississippi River Annex 2009

Recreational Waterway Incidents					
Date	<b>Body of Water</b>	Location	Type of Accident	Cost Estimates	Incident
7/19/1998	Mississippi River	Scott County	PD	N/A	PWC and Boat Collision
8/23/1998	Mississippi river	Scott County	PD	N/A	Boat hit rock, causing hole in hull
8/25/1998	Mississippi River	Scott County	PD	N/A	Boat hit submerged object
9/12/1998	Mississippi River	Scott County	PI/PD	N/A	PWC and Boat Collision
7/18/1998	Mississippi River	Scott County	PI	N/A	Person fell off tube
6/24/1999	Mississippi River	Scott County	PD	N/A	PWC collided with beached vessel
7/3/1999	Mississippi River	Scott County	PD	N/A	Capsized boat
7/31/1999	Mississippi River	Scott County	PD	N/A	Boat hit barge
8/1/1999	Mississippi River	Scott County	PI/PD	N/A	2 PWC collided; leg injury
4/15/2000	Mississippi River	Scott County	PD	N/A	2 boats collided
6/11/2000	Mississippi River	Scott County	PD	N/A	Boat sunk
8/12/2000	Mississippi River	Scott County	PI	N/A	PWC and Boat Collision
8/26/2000	Mississippi River	Scott County	F	N/A	Person fell overboard; alcohol involved
6/17/2001	Mississippi River	Scott County	PI	\$10,200	2 PWC collided; neck injury; alcohol involved
6/30/2002	Mississippi River	Scott County	PI	N/A	Boat hit a fixed object; cut hand
8/10/2002	Mississippi River	Scott County	PI	N/A	Mechanical problem with boat, boat veered and person fell in boat; dislocated shoulder
9/1/2002	Mississippi River	Scott County	PI	\$100	PWC was rounding corner; persons finger struck tree amputating end of finger; alcohol involved
7/13/2003	Mississippi River	Scott County	PI	\$0	Tube fell out of boat and pulled person in; injury to arm
7/26/2003	Mississippi River	Scott County	PI/PD	\$0	PWC stopped, boat collided with PWC; injury to elbow
8/17/2003	Mississippi River	Scott County	PD	\$5,000	2 boats collided
7/4/2004	Mississippi River	Scott County	PI	\$0	When anchoring boat person broke rib
7/21/2004	Mississippi River	Scott County	PI	\$0	2 boats collided; alcohol involved
7/31/2004	Mississippi River	Scott County	PD	\$500	description not available; alcohol involved
6/18/2005	Mississippi River	Scott County	PD	\$500	Boat was traveling downstream and hit either wing dam or submerged log
6/17/2005	Mississippi River	Scott County	PD	\$30,000	Operator not paying attention and grounded boat; alcohol involved
7/22/2005	Mississippi River	Scott County	PD	\$5,000	Boat hit a navigational buoy; alcohol involved
7/22/2006	Mississippi River	Scott County	PI	N/A	Boat left beach when storm hit, wave capsized boat ejecting occupants into river; one person with cut above eye; alcohol involved
7/22/2006	Mississippi River	Scott County	PI	N/A	Operator ran boat aground when attempting to reverse boat drifted into cable of gambling boat, cable broke off hitting operator in head; large gash to head; alcohol involved
11/29/2007	Mississippi River	Scott County	N/A	N/A	Information not available for incident

Recreational Waterway Incidents					
Date	<b>Body of Water</b>	Location	Type of Accident	Cost Estimates	Incident
7/26/2008	Mississippi River	Scott County	PI	N/A	Waterskiing accident
8/1/2009	Mississippi River	Scott County	PD	\$120,000	Damage to vessel during high speed operation
8/9/2009	Mississippi River	Scott County	PD	\$58,000	Damage to vessel while starting engine

Source: Iowa Department of Natural Resources; Local Law Enforcement Division Scott County Notes: PWC = Personal Watercraft; PD= Property Damage; PI= Personal Injury; F= Fatal

Sources				
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007			
U.S. Coast Guard: Mississippi River and Tributaries Waterway Action Plan – Upper Mississippi River Annex 2009	(http://www.uscg.mil/d8/WesternRivers/docs/NC%20-%20UMR%20- %202008.pdf)			
Iowa Department of Natural Resources	Local Law Enforcement Bureau for Scott County			
U.S. Army Corps of Engineers	2001 Upper Mississippi River Navigation Charts (http://www2.mvr.usace.army.mil/NIC2/mrcharts_omni.cfm)			



#### Windstorm

**Definition:** Extreme winds associated with severe winter storms, severe thunderstorms, downbursts, and very steep pressure gradients.

**Description:** Wind events that produce wind speeds in excess of 64 knots, and/or produce (extensive) property damage, injuries, and/or death. These events can range from a few hundred feet in extent up to several tens of miles wide and several hundred miles long.

**Maximum Extent:** Unlike tornadoes, windstorms may have a destructive path that is tens of miles wide and several hundred miles long. Large hail, strong straight-line winds, heavy rains, flash flooding, and lightning are also associated with severe storms and may cause significant damage to a wider area.

The following available information from the National Climatic Data Center gives an indication of the magnitude of such events:

Event Date	<b>Location</b>	<b>Gust Speed</b>
04/26/1994	Most of Iowa	60 mph
03/25/1996	Scott County	81 mph
04/04/2000	Scott County	36 mph
03/09/2002	Eastern Central Iowa	60 mph

Hazard Score Calculation				
Probability Magnitude/Severity Warning Time Duration Weighted Score				Weighted Score
1.33	0.60	0.55	0.17	2.64

Evaluation Criteria	Description		
	The National Climate Data Center records 21 events for Scott County dating from 1959 where high winds were the chief hazard. The strongest wind recorded in this data was reported from Park View on May 10, 1996 at 85 knots (97.75 mph). The highest property damage from a wind storm event in Scott County was recorded on May 24, 1996 at \$167,000, although this storm caused extensive damage throughout eastern Iowa.		
	<ul> <li>April 26, 1994: Winds were sustained in the 30 to 45 mph range during this daylong event. Frequent gusts in excess of 50 mph were reported, with occasional gust to 60 mph or more. Three injuries were reported in Scott County when high winds caused a tree to fall on a car at ar elementary school. This event affected most of Iowa.</li> <li>May 10, 1996: The strongest wind recorded was associated with a thunderstorm. Winds of almost 98 mph affected 150 buildings in Parkview and caused over \$1 million in damages.</li> </ul>		
Historical			
Occurrence	<b>May 24, 1996:</b> This high wind event was due to gradient winds. Widespread damage to trees and power outages were reported. The most extensive damage occurred just west of Scott County and overall damage totaled \$500,000.		
	<b>April 6, 1997:</b> Strong gradient winds during this event caused \$2.6 million in damage in East-Central Iowa. Downed trees and power lines were widespread. There were isolated reports of structural damage as well as several reports of semi-trucks being blown off the road. Gusts of 68 mph were recorded at the Davenport Airport.		
	<b>April 4, 2000:</b> Wind speeds were sustained at 20-30 mph during this event with gusts measured at 36 mph in Scott County. Although winds were not as severe as most windstorms, this event did cause several injuries. Seven construction workers were injured when roof trusses were		

Evaluation Criteria	Description
	knocked over. None sustained serious injuries.
	<b>November 12, 2003:</b> This wind event coincided with a fall storm. Sustained winds of 30 to 40 mph with gusts of 61 mph were recorded in Scott County. During the high wind event, as many as 15,000 people were without power and 4 radio stations were off-air. Severe structural damage was reported at Bowe Manufacturing in Bettendorf.
Probability	Based on historical averages, Iowa would expect to have about 7 to 10 wind events each year in which wind speeds exceed 70 knots. Scott County has somewhat fewer events of that magnitude, averaging about one extreme wind event every two years.
Vulnerability	Those most at risk from windstorms would be those also vulnerable to tornadoes, including people living in mobile homes, campgrounds, and other dwellings without secure foundations or basements. Although windstorms affect a broad area, the direct adverse effects would be limited by the availability of adequate shelter. The 2010 State of Iowa Hazard Mitigation Plan states that Scott County averages \$23,060 in damages from windstorms annually.
Location	Any area is vulnerable to the effects of windstorms.
Severity	<ul> <li>A. Health and safety of persons in affected area: Effects are negligible, with the number depending on the population living in at-risk structures. There are few injuries likely.</li> <li>B. Health and safety of response personnel: The effects on safety to response personnel are negligible.</li> <li>C. Continuity of operations: Operations may be hindered by power outages but risks are otherwise negligible.</li> <li>D. Property, facilities, and infrastructure: Damage to property depends on the severity of the wind event. Those structures that are identified as vulnerable will be more at risk for damage. Other damage may result from downed trees or flying debris. Lost shingles or similar damage may be seen.</li> <li>E. Delivery of services: Power outages may result from wind storms. Extent of interruptions depends on severity of storms.</li> <li>F. Environment: Effects on the environment are negligible to limited. There may be possible downed trees and limbs.</li> <li>G. Economic and financial conditions: Effects are negligible to minor and are dependent on the type of structure damaged.</li> <li>H. Regulatory and contractual obligations: None known.</li> <li>I. Reputation of the entity: No impact.</li> </ul>
Speed of Onset	Wind speeds may approach 120 mph and a storm can travel across the ground at more than 50 mph. Advancements in weather forecasting have allowed watches to be delivered to those in the path of these storms up to hours in advance. The best lead time for a specific storm is about 30 minutes.

Sources		
State of Iowa, IHSEMD	Iowa Hazard Mitigation Plan, 2007	
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms	

## Assessing Vulnerability

## Community Profile: Scott County, Iowa

This section analyzes the vulnerability of the county to natural and man-made hazards in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities. The first part is a general profile of Scott County that describes the characteristics of the county and its historic development. The format for this profile follows the outline suggested in <u>Iowa Hazard Analysis and Risk Assessment</u>: 2003 Local Guide.

#### Climate and Weather

The climate of the Scott County area is subhumid midcontinental, with the average annual precipitation being 34.11 inches. On the average, 66% of the annual precipitation occurs from April to September. The mean temperature is 51 degrees Fahrenheit, with the coldest and warmest months being January and July respectively. Temperatures average 21.2 degrees Fahrenheit in January and 76.2 degrees Fahrenheit in July.

	ge Winter perature	Average Summer Temperature	Average Annual Precipitation	Average Annual Snowfall*	Average Wind Speed
24	1.83° F	74.06° F	34.11 in.	15.9 in.	7.1 - 11.8 mph
-3	.98° C	23.37° C	86.64 cm.	40.39 cm.	11.4 -19.0 kph

<sup>\*</sup> Water equivalent

Source: National Climatic Data Center, 1971-2000 Averages for LeClaire, IA Lock & Dam 14

#### **Communications**

Newspapers	Radio Stations	Public Safety	Landline and/or cellular service	TV Stations
7 days a week publications - 4	21	9-1-1 Service	Qwest Communications	ABC
Once per week publications - 3			McLoud USA	CBS
			Central Scott Telephone Company	NBC
			Iowa Telecom	FOX
			Major cellular providers	PBS
				Digital Cable and satellite available

#### **Education**

Scott County contains portions of or all of the following school districts: Bettendorf Community School District, Davenport Community School District, North Scott Community School District, and Pleasant Valley Community School District. Colleges and universities within Scott County include Scott Community College, Palmer College of Chiropractic, St. Ambrose University, and technical/trade schools.

#### Population 3 years and over enrolled in school in Scott County: 44,130

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

Scott County Educational Attainment for the Population 25 years and over		
Population 25 and over	110,617	
Less than 9th Grade	3,678	
9th to 12th grade (no diploma)	4,945	
High School Graduate (included equivalency)	29,310	
Some college, no degree	28,148	
Associates Degree	10,739	
Bachelors Degree	24,793	
Professional or Graduate Degree	9,004	
Percent High School Graduate or Higher	92.2%	
Percent Bachelors Degree or Higher		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates 2009.

# Labor Force, Economy, and Employment

Labor Force	Employed	Unemployed	Unemployment Rate
90,960	85,050	5,920	6.5%

Source: Iowa Workforce Development, 2009 annual average

Employment by Industry		
Civilian employed Population 16 years and over	80,986	
Agriculture, Forestry, Fishing and Hunting, and Mining	775	1.0%
Construction	4,190	5.2%
Manufacturing	12,899	15.9%
Wholesale Trade	2,574	3.2%
Retail Trade	10,896	13.5%
Transportation and Warehousing, and Utilities	4,457	5.5%
Information	1,482	1.8%
Finance, Insurance, Real Estate, and Rental and Leasing	6,076	7.5%
Professional, Scientific, Management, Administrative, and Waste Management Services	7,438	9.2%
Educational, Health Care, and Social Assistance	14,561	18.0%
Arts, Entertainment, Recreation, Accommodation, and Food Services	7,030	8.7%
Other Services (Except Public Administration)	4,040	5.0%
Public Administration	4,568	5.6%

Personal Income		
Median Household	\$50,418	
Median Family	\$64,523	
Per capita	\$26,674	

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

Employers in Scott County with more than 500 Employees		
Genesis Medical Center	3,850	
Davenport Community School District	1,950	
ALCOA	1,900	
Kraft Foods	1,500	
City of Davenport	980	
Isle of Capri	925	
APAC Customer Services	900	
John Deere Davenport Works	825	
MidAmerican Energy	780	
Rhythm City Casino	750	
St. Ambrose College	670	
Bettendorf Schools	570	
United Parcel Service (UPS)	500	

Source: Dun and Bradstreet MarketPlace, 2nd Quarter 2009; Hoovers, 3rd Quarter 2010 and responses from

individual organizations. Compiled by Bi-State Regional Commission, November 2010.

Note: Data provided is derived from multiple sources with varying levels of accuracy.

#### Geography and Land Use

Scott County is located in east-central Iowa. The county is bordered by the Wapsipinicon River and Clinton County, IA to the north, the Mississippi River and Rock Island County, IL, on the east and south, Muscatine County, IA on the southwest, and Cedar County, IA on the west. Davenport is the largest city and the county seat.

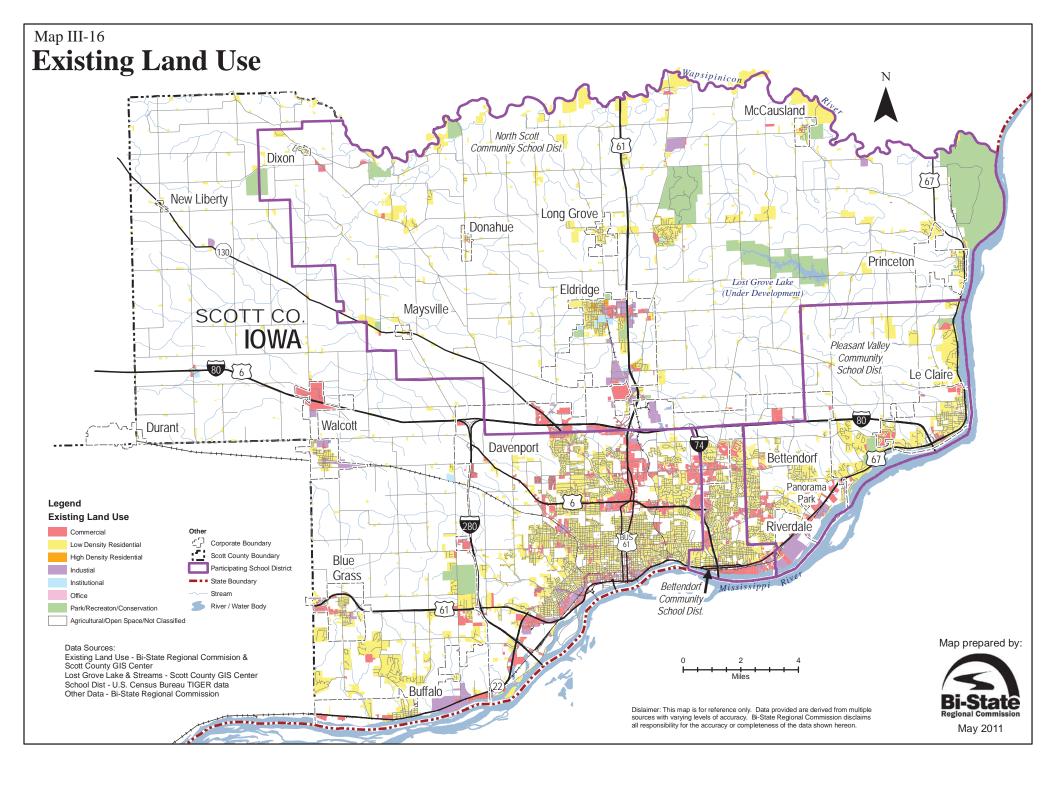
The soils in Scott County are nearly level to steeply sloping. The topography of the uplands along the Mississippi River has steep side slopes and flat narrow foot slopes with alluvial bottomlands formed in alluvium. A river terrace parallels the Wapsipinicon River and the topography in this area is not as steep as along the Mississippi River. The topography switches to gently rolling land away from the rivers in the central and western parts of the county. About half of the county drains to the Mississippi River while the other half flows to the Wapsipinicon River. The Wapsipinicon River flows into the Mississippi River in the northeast corner of Scott County.

According to the Soil Survey of Scott County 1996, the county has been one of the most agriculturally productive counties in the State of Iowa for over 50 years. This activity continues to this day. Primary crops grown within Scott County include corn, soybeans, and forage crops such as alfalfa and smooth brome. Wheat, oats, barley, sod, some vegetables, nursery stock, and orchard crops are also harvested. The county also has some of the highest priced farmland in the state; however the agricultural productivity is only a minor portion of the total economy of Scott County due to the large urban center located in the county. Residential areas within Scott County are primarily located within incorporated areas; however approximately 2% or 5,440 acres of the existing land use within unincorporated Scott County is residential developments. The Park View subdivision as well as residential development along the Mississippi River accounts for a large portion of this land area. Commercial and industrial areas are predominantly located within incorporated areas, especially Davenport. Map III-16 shows existing land use in Scott County.

#### **Local History**

Native Americans historically lived along the shores of the area rivers and streams where areas of potential archeologically significant sites may be found. There is a rich history of settlement as westward expansion of the United States created a crossroads of rail and river navigation in the heart of the Quad City Metropolitan Area. The first railroad bridge across the Mississippi River was located between Davenport, IA, Rock Island, IL, and the Rock Island Arsenal Island. Other areas up and down the Mississippi River in Scott County were the sites of Civil War activities.

The area of Scott County was first settled in 1833 in a place called Valley City. Today it is an unincorporated area known as Pleasant Valley. By 1836, the first survey of public land in Iowa was called for, and by March of 1837, the Scott County area had been completely surveyed. Scott County was established in 1837 and was named in honor of General Winfield Scott, who presided the signing of the treaty ending the Black Hawk War. The first elections were held in 1838 with the first courthouse being built by 1841. It was located on land donated by Antoine LeClaire in Davenport, IA at the same site as the courthouse today. In addition to Mr. LeClaire and General Scott, another famous resident was William Cody, who was born at the Cody homestead in rural Scott County in 1846 and became known as Buffalo Bill of Wild West fame.



# **Housing**

Units in Structure			
Total Housing Units	71,564		
1-unit detached	48,239	67.4%	
1-unit attached	3,302	4.6%	
2 units	3,244	4.5%	
3 to 4 units	2,846	4.0%	
5 to 9 units	2,749	3.8%	
10 to 19 units	5,693	8.0%	
20 or more units	3,236	4.5%	
Mobile home	2,255	3.2%	

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

Year Structure Built					
Year Housing Units Percent					
2005 or later	2,363	3.3%			
2000 to 2004	4,539	6.3%			
1990 to 1999	6,086	8.5%			
1980 to 1989	5,216	7.3%			
1970 to 1979	9,471	13.2%			
1960 to 1969	9,329	13.0%			
1950 to 1959	12,977	18.1%			
1940 to 1949	12,764	17.8%			
1939 or earlier	8,819	12.3%			
Median Year Structure Built	1961				

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

Home Ownership and Median Rent		
Occupied Housing Units	67,148	
Specified Owner Occupied Units	46,149	
Median Value of Owner Occupied Units	\$140,000	
Specified Renter Occupied Units	20,999	
Median Rent	\$604	

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

House Heating Fuel				
Utility Gas	57,021	84.9%		
Bottled, Tank, or LP Gas	2,812	4.2%		
Electricity	6,465	9.6%		
Fuel oil, Kerosene, etc.	93	0.1%		
Coal or Coke	0	0.0%		
Wood	314	0.5%		
Solar Energy	0	0.0%		
Other Fuel	399	0.6%		
No Fuel Used	44	0.1%		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009.

#### Infrastructure

Scott County is traversed by Interstates 74, 80, and 280 that frame the Iowa Quad Cities Metropolitan Area and carry some of the heaviest traffic in Scott County. Other major highways and roads within Scott County include U.S. Routes 61 and 67, and State Route 22. Five automobile bridges span the Mississippi River within Scott County limits: the I-280 Bridge, the Centennial Bridge, the Government Bridge at Lock and Dam 15, the I-74 Bridge, and the I-80 Bridge.

There are two airports in the Quad City Area: The Quad City International Airport, for commercial aviation, and the Davenport Municipal Airport, for general aviation. The Quad Cities Airport, located in Moline, Illinois is the regional airport for Western Illinois and Eastern Iowa. It serves the area with over 60 daily flights and non-stop service to nine hubs, connecting to multiple national and international destinations. There are two air freight carriers currently at the Quad Cities International Airport handling over 4 million pounds of freight per year. General aviation needs are met by the Davenport Municipal Airport in Davenport, Iowa. This airport provides vital connections to businesses and their customers.

Currently there are two rail companies operating Scott County, the Canadian Pacific (CP) and Iowa Interstate (IAIS). There is no passenger rail service to Scott County at this time. The two existing rail crossings over the Mississippi River to Scott County are the Crescent Bridge and Government Bridge.

Waterways within the county include the commercially navigable Mississippi River and the Wapsipinicon River (the Wapsipinicon River is a tributary of the Mississippi River). Lock and Dam 14 and Lock and Dam 15 on the Mississippi River are located within the county border and provide movement for barges carrying freight up and down the Mississippi River. There are 19 active barge terminals located within Scott County, seven of which are served by rail. In addition, the Channel Cat, a water taxi service on the Mississippi River, has docks located in Bettendorf and Davenport. The Channel Cat provides transportation between Bettendorf and Davenport on the Iowa side of the Mississippi River and Moline and Rock Island on the Illinois side.

Source water for municipalities in the county comes from the Mississippi River and wells. The Iowa American Water Company, which serves Davenport, LeClaire, Riverdale, Panorama Park, and unincorporated parts of Scott County, has an average demand of 16,600,000 gallons of water per day. The Cities of Bettendorf, Davenport, Panorama Park, and Riverdale share waste water treatment facilities. The treatment plant has a design capacity of approximately 26 million gallons per day, but can accept up to 60 million gallons per day during storms and can perform at that capacity for 48 hours. Eldridge and LeClaire, both have facilities that can operate secondary treatments.

#### Medical and Healthcare

Scott County is serviced by Genesis Health Systems and Trinity Health Care, operating a total of three campuses. In addition, Community Health Care, Inc has an outpatient facility.

# **Demographics**

Population				
Total 166,650				
Male	81,366	48.8%		
Female	85,284	51.2%		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

Age			
	Number	Percent	
0 to 4	11,446	6.9%	
5 to 14	22,964	13.8%	
15 to 19	11,489	6.9%	
20 to 34	34,310	20.6%	
35 to 54	45,623	27.4%	
55 to 64	19,703	11.8%	
65 to 84	17,573	10.5%	
85 +	3,542	2.1%	
Median Age	36.7		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

Race				
	Number	Percent		
White alone	144,817	86.9%		
Black or African American alone	11,239	6.7%		
American Indian and Alaskan Native alone	298	0.2%		
Asian alone	3,653	2.2%		
Native Hawaiian and Other Pacific Islander alone	0	0.0%		
Some other race	1,505	0.9%		
Two or more races	5,138	3.1%		
Hispanic Ethnicity (of any race)	8,366	5.0%		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

Households by Type				
	Number	Percent		
Total Households	67,148	100.0%		
Family Households	42,862	63.8%		
With own children under 18 years	19,780	29.5%		
Married couple family	32,825	48.9%		
With own children under 18 years	12,941	19.3%		
Male householder, no wife present	2,941	4.4%		
With own children under 18 years	1,695	2.5%		
Female householder, no husband present	7,096	10.6%		
With own children under 18 years	5,144	7.7%		
Non-Family Households	24,286	36.2%		
Householder Living alone	19,624	29.2%		
Householder 65 years and over	5,734	8.5%		
Average Household Size		2.43 persons		
Average Family Size		3.01 persons		

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

	1960	1970	1980	1990	2000	2009	% of the County Population	% Change 1960 - 2009
Scott County	119,067	142,687	160,022	150,973	158,668	166,650	100.00%	39.96%
City of Bettendorf	10,534	22,126	27,381	28,139	31,275	33,098	19.86%	214.20%
City of Blue Grass	568	1,032	1,377	1,214	1,169	1,349	0.81%	137.50%
City of Buffalo	1,088	1,513	1,441	1,250	1,321	1,357	0.81%	24.72%
City of Davenport	88,981	98,469	103,264	95,333	98,359	101,306	60.79%	13.85%
City of Dixon	280	276	312	228	276	256	0.15%	-8.57%
City of Donahue	133	216	289	316	293	326	0.20%	145.11%
City of Eldridge	583	1,535	3,279	3,378	4,159	5,371	3.22%	821.27%
City of LeClaire	1,546	2,520	2,899	2,734	2,847	3,081	1.85%	99.29%
City of Long Grove	182	269	596	605	597	771	0.46%	323.63%
City of McCausland	173	226	381	308	299	305	0.18%	76.30%
City of Maysville	126	170	151	170	163	164	0.10%	30.16%
City of New Liberty	145	141	136	139	121	135	0.08%	-6.90%
City of Panorama Park	140	219	145	127	111	131	0.08%	-6.43%
City of Princeton	580	633	965	904	946	964	0.58%	66.21%
City of Riverdale	477	684	462	419	656	602	0.36%	26.21%
City of Walcott	664	989	1,425	1,356	1,528	1,655	0.99%	149.25%
Unincorporated Area	12,967	11,669	15,519	14,349	14,548	15,779	9.47%	21.69%

Source: U.S. Census Bureau, Decennial Census 1950 - 2000; U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

## **Recreation and Tourism**

There are numerous parks, recreational areas, and open spaces including conservation areas, within Scott County. Scott County Park, a 1,280 acre park; located nine miles north of the City of Davenport, is the largest park in Scott County. Its features include picnic areas, camping sites,

an equestrian area, playgrounds, a swimming pool, and baseball fields. West Lake Park, located on 110th Avenue west of Interstate 280, is a 620 acre park with four lakes, fishing, swimming, picnic areas, playgrounds, a beach, and campgrounds. The Wapsi River Environmental Education center has been named one of 77 areas in Iowa with premium wildlife viewing. In combination with Sherman Park, the area boasts of 432 acres of rich plant and animal diversity. The center also offers environmental education for the public, schools, and other groups. Each jurisdiction within Scott County also has numerous parks, golf courses, pools or aquatic centers, and sports areas, with some of the larger parks being located within the City of Davenport. Credit Island, on the Mississippi River, is approximately 420 acres and has amenities such as a golf course, several sporting areas, biking, hiking, boating, and fishing.

Other tourist attractions include the Buffalo Bill Museum; Figge Art Museum; Family Museum; the Putnam Museum & IMAX Theater; Modern Woodmen Park, home to the Quad City River Bandits; Buffalo Bill Cody Homestead; Walnut Grove Pioneer Village; Isle of Capri Casino; Rhythm City Casino; the Adler Theater; the River Center; the Waterfront Convention Center; and many more entertainment venues. The Mississippi Valley Fairgrounds located in southwest Davenport hosts the Scott County Fair, which is one the largest fairs in Iowa. The fair attracts approximately 300,000 people during its weeklong event with over 600,000 people visiting annually for other events held at the fairgrounds.

In addition to regional attractions and facilities, Scott County's communities host a number of large events throughout the year that draw large numbers of people. These events include Bix 7, Bix Beiderbeck Jazz Festival, River Roots Live, and the LeClaire Tug Fest.

#### **Determining Community Assets**

An outline and definition of assets is from the *State and Local Hazard Mitigation Planning How-to-Guide Understanding your Risks: Identifying Hazards and Estimating Losses*, FEMA document 386-2, published August 2001. The types of community assets that are considered include critical facilities and buildings, vulnerable populations, economic elements, and historical, cultural and natural resources. Information regarding the presence of these types of assets within the county is discussed as available. Additionally, a description of the assets selected by participating jurisdictions is included within the individual multi-jurisdictional risk assessments found later in this chapter.

#### Critical Buildings and Facilities

Essential Facilities – These facilities are essential to the health and welfare of the whole population and are especially important following hazard events. The potential consequences of losing them are great, an inventory of these facilities is crucial. These facilities are based on their structural integrity, content value, and the effects on the community if there was an interruption in their functions. The vulnerability is based on the service they provide rather than simply their physical aspects.

- Hospitals
  - 1. Genesis Medical Centers
  - 2. Trinity Medical Center
- Other Medical Facilities
- Police and Fire Stations

	Police Department	Fire Department
Bettendorf	X	X
Blue Grass	X	X
Buffalo	X	X
Davenport	X	X
Dixon *		X
Donahue *		X
Eldridge	X	X
LeClaire	X	X
Long Grove *		X
McCausland *		X
Maysville *		X
New Liberty *		X
Panorama Park *		X
Princeton	X	X
Riverdale *		X
Walcott	X	X
* Indicates Volunteer Fire Department		

## • Emergency Operations Centers

- 1. County Wide Emergency Operation Center
- 2. City of Bettendorf
- 3. City of Davenport

#### • Evacuation Shelters

1. Available throughout the county, residents will be notified of the locations as needed.

## • Schools and Colleges

- 1. Bettendorf Community School District
- 2. Davenport Community School District
- 3. North Scott Community School District
- 4. Pleasant Valley Community School District
- 5. St. Ambrose University
- 6. Palmer College of Chiropractic
- 7. Scott Community College
- 8. Kaplan College
- 9. Hamilton Technical College

- Transportation Systems
  - Airways (Airports and Heliports)
    - 1. Davenport Municipal Airport
    - 2. Genesis Medical Center East Campus Heliport
    - 3. Genesis Medical Center West Campus Heliport
  - Highways (Bridges, Tunnels, Roadbeds, Overpasses, and Transfer Centers)
    - 1. Interstates: I-80, I-280, I-74
    - 2. U.S. Highways: 6, 61, 67
    - 3. State Highways: 130
    - 4. Bridges: Centennial Bridge, Government Bridge (Rock Island Arsenal), I-74 Bridge, I-80 Bridge, and I-280 Bridge.
  - Railways
    - 1. Canadian Pacific
    - 2. Iowa Interstate
  - Waterways (navigable)
    - 1. Mississippi River
- Lifeline Utility Systems
  - Potable Water

	City/Public Water Sources	<b>Local Groundwater Sources</b>	Private Water Source
Bettendorf *	X		
Blue Grass		X	
Buffalo		X	
Davenport *	X		
Dixon		X	
Donahue		X	
Eldridge	X		
LeClaire *	X		
Long Grove		X	
Mc Causland			X
Maysville		X	
New Liberty		X	
Panorama Park *	X		
Princeton		X	
Riverdale *	X		·
Walcott		X	

<sup>\*</sup> Served by Iowa American Water Company

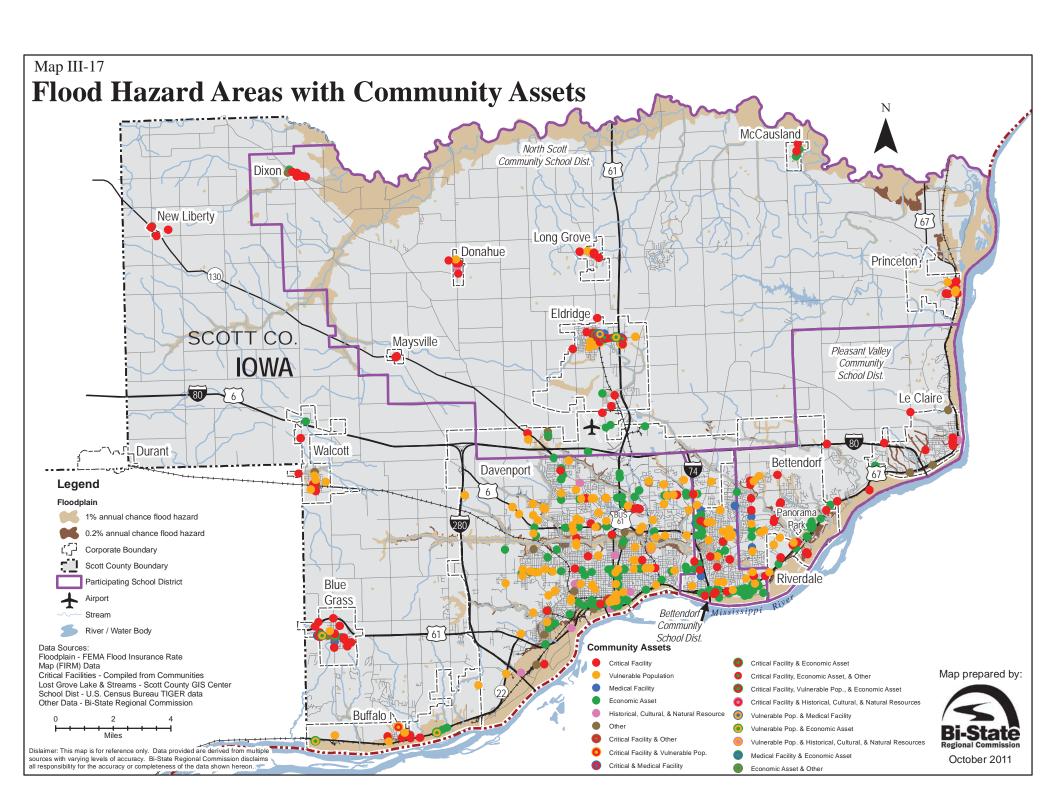
#### Wastewater

	City Wastewater Treatment Facility	Sewage Lagoon	Private Septic Systems
Bettendorf	x		
Blue Grass		X	
Buffalo		X	
Davenport	X		
Dixon		X	
Donahue		X	
Eldridge	x		
LeClaire	x		
Long Grove		X	
Mc Causland			X
Maysville			X
New Liberty		X	
Panorama Park	X		
Princeton		X	
Riverdale	X		
Walcott		X	

- Oil
- Natural Gas
  - 1. Alliant Energy Company
  - 2. Eastern Iowa Light and Power Company
  - 3. Mid-American Energy Company
- Electric Power
  - 1. Alliant Energy Company
  - 2. Eastern Iowa Light and Power Company
  - 3. Mid-American Energy Company
- Communication Systems
- High Potential Loss Facilities
- Hazardous Material Facilities

#### Critical Facilities

Participating jurisdictions provided an inventory of their community assets that could be potentially damaged by a hazard event. They individually determined which facilities were vulnerable. These assets and critical facilities are described in general terms for each participating jurisdiction in the Multi-Jurisdictional Risk Assessment section. While specific site addresses are not included in this document for security reasons, the selected critical facilities have been mapped for the planning area as a whole in relation to Map III-17.



## Vulnerable Populations in Scott County

Vulnerable populations can include small children, persons with disabilities, elderly persons, or non-English speaking residents that may require special response assistance or special medical care after a disaster.

Population	Number	Percent
Total Population under 5 years	11,446	6.9%
Total Population over 65 years	21,115	12.7%
Total Persons with a Disability (all age groups)	15,351	9.2%
Total Population 5 years and over that speak English "less than very well"	3,183	2.1%

Source: U.S. Census Bureau, American Community Survey, 1-year estimates, 2009

#### Economic Elements

Economic elements could affect the local or regional economy if significantly disrupted.

- Major Employers (see table on Page 122 for major employers with over 500 employees at the beginning of this chapter)
- Financial Centers

## Special Considerations

Additional areas of high-density residential or commercial development that, if damaged, could result in high death tolls and injury rates.

- Shopping districts and malls
- High density residential developments
- High rise residential or commercial buildings
- High attendance event venues (i.e. sports fields, entertainment facilities)
- College dormitories

#### Historical, Cultural and Natural Resource Areas

These are areas that could be identified and protected under state and federal laws.

#### Other Important Facilities

These include facilities that would help ensure a full recovery of the community following a hazard event.

- Government Functions and Facilities
- U.S. Army Facilities
  - U.S. Army Reserve Center
  - Iowa Army National Guard
  - Iowa Army Aviation
- Major Employers
- Banks
- Establishments that provide essential day-to-day needs (i.e. grocery stores, gas stations, pharmacies, and hardware stores)

## Assessing Vulnerability: Estimating Potential Losses

The Local Multi-Hazard Mitigation Plan Guidance (July 2008) pages 36-37 and 45-46 requires vulnerability assessment and estimated losses for all identified hazards. The summary can be presented in terms of dollar value or percentages of damages. Any limitations of data are indicated.

#### **Floodplain**

The Scott County Assessor's Office provides county-wide assessment information for residential, commercial, industrial, agricultural land, and exempt land properties. Data available includes land value, dwelling value, building/improvement value, and total value. Land value refers to just the land on which a structure is built. Dwelling value refers to the value of a habitable (residential) structure. Building/improvement value refers to the value of a structure used for non-residential properties. Total value equals the value of land, dwelling, and building/improvements.

With the use of GIS mapping, the parcel shapefiles were matched with the Scott County Digital Flood Insurance Rate Map (DFIRM) using the Intersect function. This function pulls parcels within and adjacent to the floodplain. Properties with only a portion of the floodplain were classified as completely within the inundation area and floodplain. Below are the property values for properties located within the 1% and 0.2% annual chance special flood hazard areas.

1% Annual Chance Special Flood Hazard Area							
Classification	Acres	Land Value	Dwelling Value	Building Value	Total Value		
Unidentified	1,779.6	\$ -	\$ -	\$ -	\$ -		
Agricultural	35,995.2	\$ 36,334,459	\$ 12,250,660	\$ 1,569,000	\$ 50,154,119		
Commercial	3,203.1	\$ 108,555,449	\$ -	\$ 340,062,121	\$ 448,617,570		
Exempt	6,533.0	\$ 109,885	\$ -	\$ -	\$ 109,885		
Industrial	1,127.9	\$ 22,922,030	\$ -	\$ 112,084,783	\$ 135,006,813		
Residential	6,400.6	\$ 136,637,450	\$ 416,603,195	\$ -	\$ 553,240,645		
Total	55,039.5	\$ 304,559,273	\$ 428,853,855	\$ 453,715,904	\$ 1,187,129,032		
	0.2% Annual Chance Special Flood Hazard Area						
Classification	Acres	Land Value Dwelling Value		Building Value Total Value			
Unidentified	487.2	\$ -	\$ -	\$ -	\$ -		
Agricultural	7,343.1	\$ 8,791,963	\$ 1,234,860	\$ 275,580	\$ 10,302,403		
Commercial	1,833.4	\$ 84,652,599	\$ -	\$ 284,396,820	\$ 369,049,419		
Exempt	3,325.6	\$ -	\$ -	\$ -	\$ -		
Industrial	1,047.2	\$ 21,946,040	\$ -	\$ 119,968,710	\$ 141,914,750		
Residential	1,359.8	\$ 84,777,179	\$ 291,098,905	\$ -	\$ 375,876,084		
Total	15,396.3	\$ 200,167,781	\$ 292,333,765	\$ 404,641,110	\$ 897,142,656		

Also using GIS mapping, the number of building footprints within the DFIRMs were calculated by selecting the centroid (the geometric center of the feature) of each building footprint which was within the DFIRMs (this was also done for levee inundation areas). The data used to count

structures did not have building values or types (residential, commercial, industrial), so that information has not been provided. It should be noted that the different classifications of structures (Building, Out Building, Houses, Tank Silo, Sheds, Tanks, and Trailers) and their assessed value were not available for this plan. The information below is provided as is, without any assumptions being made.

Number of Building Footprints Within Each Jurisdiction					
Jurisdiction	Building Type	0.2% Floodplain	1% Floodplain		
Bettendorf	Building	218	478		
	Out Building	108	276		
	Tank Silo	6	6		
	Building	41	121		
Buffalo	Out Building	42	137		
	Tank Silo	9	27		
	Sheds	0	1		
	Building	616	1242		
	Houses	906	1040		
Davannort	Sheds	187	280		
Davenport	Tank Silo	10	16		
	Tanks	15	75		
	Trailers	45	110		
	Building	0	6		
Donahue	Out Building	0	14		
	Tank Silo	0	2		
	Building	0	22		
Eldridge	Out Building	0	8		
	Tank Silo	0	3		
LeClaire	Building	29	52		
	Out Building	23	57		
McCausland	Out Building	0	2		
D D 1	Building	0	12		
Panorama Park	Out Building	0	17		
D'acceptant	Building	15	43		
Princeton	Out Building	23	15		
	Building	31	29		
Riverdale	Out Building	11	96		
	Tank Silo	0	39		
W. L	Building	0	15		
Walcott	Out Building	0	14		

Number of Building Footprints Within Each Jurisdiction						
Jurisdiction	Building Type	0.2% Floodplain	1% Floodplain			
Unincorporated Scott County	Building	970	2374			
	Houses	906	1040			
	Out Building	232	1109			
	Sheds	187	282			
	Tank Silo	25	106			
	Tank	15	75			
	Trailers	45	110			

### **HAZUS-MH**

Scott County has elected to utilize HAZUS-MH (Hazards U.S. Multi-Hazard) to model and analyze river flooding within the planning area. HAZUS is a regional multi-hazard loss estimation model that was developed by FEMA and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. It is important to note that the intention of modeling flood events is to see how historic flood events would affect Scott County today. The top four flooding events from the Mississippi River and the Wapsipinicon River surrounding Scott County, Iowa were modeled for this project. For clarification, tailwater refers to the water surface just downstream from a hydraulic structure such as a dam, culvert, or bridge. The tailwaters used for the HAZUS modeling below are the equivalent of the river crests reported for each flood event. Flow refers to the amount of water moving through a hydraulic structure as velocity in cubic feet per second. f<sup>3</sup>/s

The top four events for the Wapsipinicon River are:

Date	Date Wapsipinicon River Wapsipinicon I Near DeWitt Tailwater (feet) near DeWitt Flo	
6/17/1990	14.19	40000*
6/16/2008	14.13	38415
5/30/2004	13.79	25400
5/24/1999	13.66	28026*

<sup>\*</sup> Actual flow values for that event were not available. Value calculated from available data.

The top four events from the Mississippi River are:

Date	Lock & Dam 14 Tailwater (feet)	Lock & Dam 14 Flow (f <sup>3</sup> /s)	Lock & Dam 15 Tailwater (feet)	Lock & Dam 15 Flow (f³/s)
4/28/1965	17.75	292075*	22.48	301808*
7/9/1993	16.56	267730	22.63	305498*
4/24/2001	16.93	274787	22.33	298118*
6/16/2008	14.84	236240	21.49	279850*

<sup>\*</sup> Actual flow values for that event were not available. Value calculated from available data.

Each of the flood inundation area models was created using FEMA HAZUS-MH MR5 software for ArcGIS. Each model results represent a Level 1 analysis, which simply means that very little data has been manipulated or edited prior to being input into the model. The results obtained from these models should be considered rough at best, and should not be used to determine exact loss estimates if a similar event were to occur. These estimates are intended to show approximate losses, and a more detailed analysis would need to be made in order to more accurately estimate damages for future events.

Using a Level 1 analysis includes using the default inventory and valuation data that is built into the software. The general building stock data in the software's database is a collection of data primarily from the U.S. Census (2000) and Dun & Bradstreet (2006). Due to the age of the data,

it is expected that some results may (and potentially) be different than actual values. More detailed information about the data used to create the default general building stock database can be found in section 3.2.1.2 of the HAZUS-MH MR5 Flood Technical Manual.

Though most of the data in the analysis was already a part of the HAZUS-MH software, some input data did come from other sources outside of HAZUS. Elevation data, which is a requirement for any level of analysis, was derived from Scott County internal data. The information contained in-house was of a better resolution than that which is available from other sources, so it was used in place of the National Spatial Data Infrastructure (NSDI) data that is recommended to be used if other data is not readily available.

Additionally, information related to the flow rates (tail water and velocity in cubic feet per second) was compiled from several government sources (specifically, the U.S. Army Corps of Engineers RiverGages.com website and the National Weather Service Advanced Hydrologic Prediction Service (AHPS)). Though these data were not 100% available, some interpretation of actual sources has allowed values to be estimated to the best capacity, which should accurately replicate these top flooding events. It is expected that these will not exactly replicate the inundation areas of these historic events, however they should be similar. Below is a brief summary of the eight events modeled in HAZUS (Table III-9).

Table III-9
HAZUS Modeled River Flood Events for Selected Dates

	HAZUS Modeled Wapsipinicon River Flood Events								
Modeled Event	ed Event Estimated Number of Of People Show Households Stimated Shows Stimated Number of Shows Stimated Number of Shows Stimated Number of Shows Stimated Number of Stimated S		Estimated % of Total Value of Residential Property Affected in County	Estimated % of Total Value of Properties Affected in County					
6/17/1990	124	183	0.13%	0.11%					
5/24/1999	112	165	0.10%	0.08%					
5/30/2004	111	164	0.09%	0.07%					
6/16/2008	123	184	0.13%	0.10%					

	HAZUS Modeled Mississippi River Flood Events								
Modeled Event	Estimated Number of Displaced Households	Estimated Number of People Seeking Short Term Shelter	Estimated % of Total Value of Residential Property Affected in County	Estimated % of Total Value of Properties Affected in County					
4/28/1965	1367	2810	1.63%	5.36%					
7/9/1993	1410	2951	1.64%	5.45%					
4/24/2001	1349	2774	1.62%	5.27%					
6/16/2008	1227	2539	1.49%	4.90%					

The June 6, 2008 flood event on the Wapsipinicon River and the July 9, 1993 flood event on the Mississippi River were reviewed in more detail to ensure the modeling lines up properly with the predicted flood areas. Census blocks were reviewed to determine if structures within the census

block would be damaged during a flood event. In addition, Modern Woodman Park was removed from damaged structures because the stadium is flood-proofed to one foot above the 100-year flood stage. The casino boats were also removed from damaged structures. If all properties identified in the HAZUS modeling were to be damaged to the extent similar to that of the Wapsipinicon River on June 6, 2008, approximately \$4.5 - \$6.5 million in total property damage may occur. If all properties identified in the HAZUS modeling were to be damaged to the extent similar to that on the Mississippi River on July 9, 1993, approximately \$540-\$718 million in total property damage may occur.

HAZUS reports expected building damage by occupancy as part of its analysis. Below are the expected building damage by occupancy for the June 6, 2008 flood event on the Wapsipinicon River and the July 9, 1993 flood event on the Mississippi River.

HAZUS Modeled 6/19/2008 Wapsipinicon Flood Event									
	Estimated Damage by Occupancy Type								
Occupancy	Occupancy 1-10% 11-20% 21-30% 31-40% 41-50% Substantially								
Agriculture	0	0	0	0	0	0			
Commercial	0	0	0	0	0	0			
Education	0	0	0	0	0	0			
Government	0	0	0	0	0	0			
Industrial	0	0	0	0	0	0			
Religion	0	0	0	0	0	0			
Residential	0	0	9	45	9	1			
Total	0	0	9	45	9	1			

HAZUS Modeled 7/9/1993 Mississippi Flood Event									
	Estimated Damage by Occupancy Type								
Occupancy	Occupancy 1-10% 11-20% 21-30% 31-40% 41-50% Substantially								
Agriculture	0	0	0	0	0	0			
Commercial	2	14	2	15	8	0			
Education	0	0	0	0	0	0			
Government	0	1	2	0	0	0			
Industrial	0	2	3	2	6	0			
Religion	0	0	0	0	0	0			
Residential	0	4	15	54	106	220			
Total	2	21	22	71	120	220			

#### **Levee Inundation Areas**

In addition to river flooding, Scott County Assessor's Office individual property information was used to provide general land and building values for the land classifications of properties located within the planning area levee inundation areas. With the use of GIS mapping, the parcel shapefiles were matched with the Scott County Digital Flood Insurance Rate Map and Iowa DNR provided inundation areas using the Intersect function. This function pulls parcels within

and adjacent to the floodplain and inundation areas. Properties with only a portion of the floodplain and inundation areas were classified as completed within the inundation area and floodplain. Should a levee break occur on one of the three levees located within Scott County (see Map III-3) during a 1% annual chance hazard flood event, the tables below indicates the land classification, land area, and land values of the property likely to be affected. Table III-10 provides more detail.

Table III-10 Land Value of Levee Inundation Areas

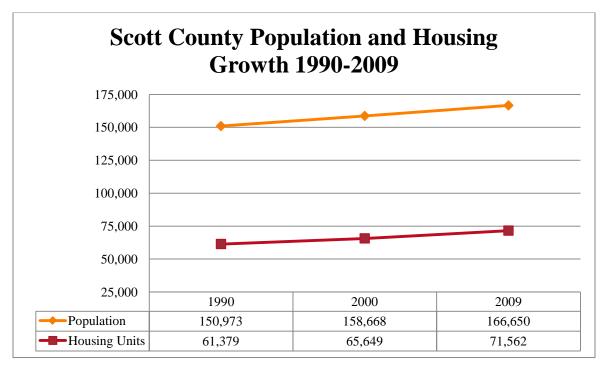
		Zuna vuna	01 22,00 11	14114441011111	Cus			
	Bettendorf, IA Levee Inundation Area (174 Buildings, 91 Out Buildings and 11 Tank Silos within Inundation Area)							
Classification	Acres	% of Total Acres within Inundation Area	Land Value	Building Value	Total Value	% of Total Value of Property within Inundation Area		
Unidentified	3.91	1.49%	\$ -	\$ -	\$ -	0.00%		
Commercial	205.63	78.18%	\$ 11,719,310	\$ 92,577,250	\$ 104,296,560	95.04%		
Exempt	20.35	7.74%	\$ -	\$ -	\$ -	0.00%		
Industrial	29.77	11.32%	\$ 739,850	\$ 4,037,820	\$ 4,777,670	4.35%		
Residential	3.38	1.28%	\$ 193,340	\$ 474,600	\$ 667,940	0.61%		
Total	263.04	100.00%	\$12,652,500	\$97,089,670	\$109,742,170	100.00%		
	Prince	eton, IA Levee Inur	ndation Area (1	<b>Building</b> withi	n Inundation Ar	ea)		
Classification	Acres	% of Total Acres within Inundation Area	Land Value	Building Value	Total Value	% of Total Value of Property within Inundation Area		
Unidentified	155.06	10.52%	\$ -	\$ -	\$ -	0.00%		
Agricultural	660.15	44.78%	\$ 554,190	\$ 355,920	\$ 910,110	63.23%		
Exempt	811.23	55.03%	\$ -	\$ -	\$ -	0.00%		
Residential	2.82	0.19%	\$ 68,000	\$ 461,310	\$ 529,310	36.77%		
Total	1474.20	100.00%	\$ 622,190	\$ 817,230	\$ 1,439,420	100.00%		

Lost Creek Levee Inundation Area (4 Outbuildings within Inundation Area)									
Classification	Acres	% of Total Acres within Inundation Area	Land Value		Building Value		Total Value		% of Total Value of Property within Inundation Area
Agricultural	660.15	100.00%	\$ 418	3,790	\$	140,280	\$	559,731	100.00%
Total	660.15	100.00%	\$ 418	3,790	\$	140,280	\$	559,731	100.00%

# Development Trends

## **Population and Housing Trends**

Scott County has shown steady growth in both population size and housing units. Since 1990, the population has increased by 10.4% (15,677), while the housing units have increased by 16.6% (10,183). The figure below (Scott County Population and Housing Growth 1990-2009) shows the change in population and housing units in more detail.



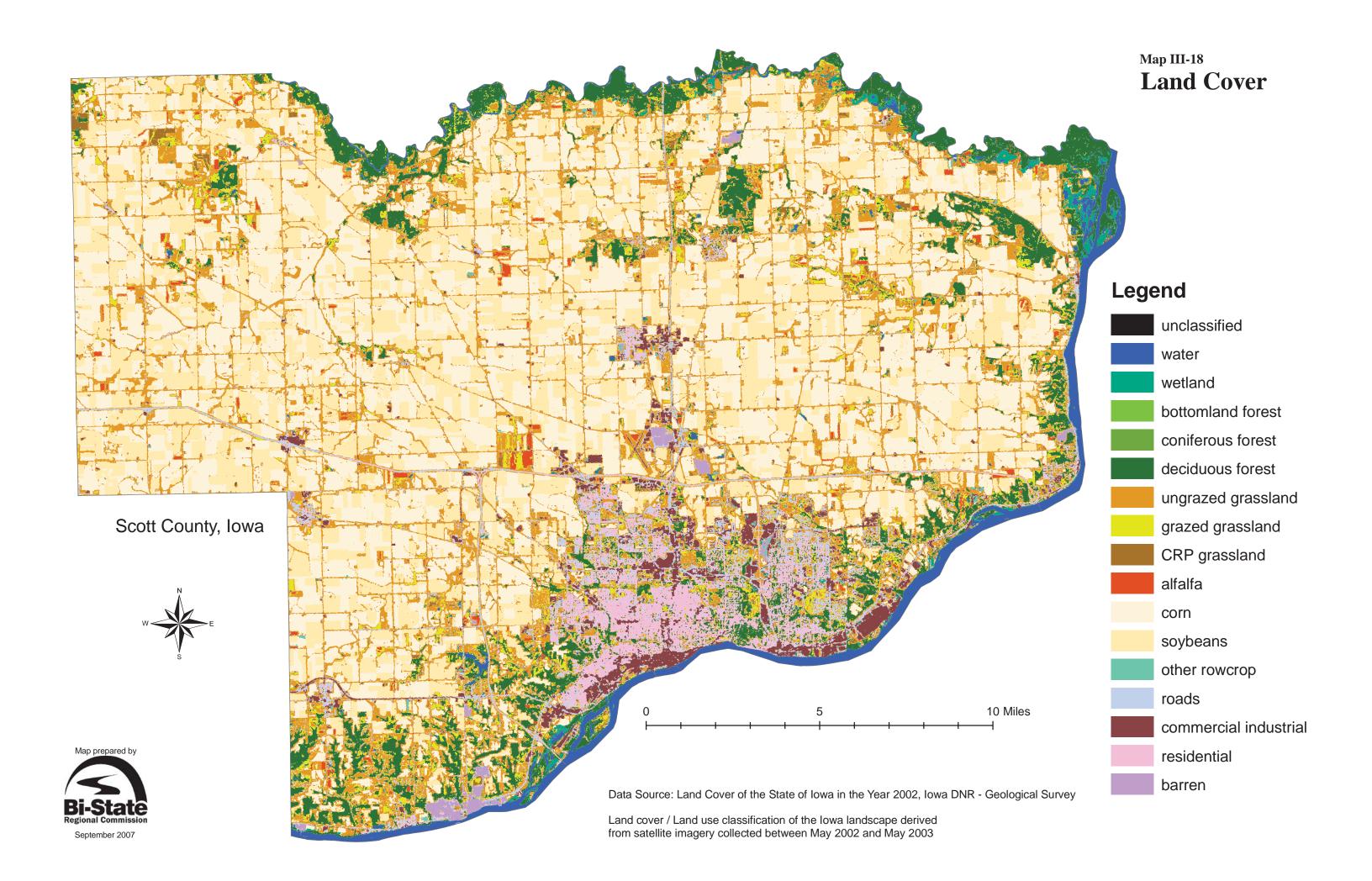
Source: U.S. Census Bureau, Decennial Census 1990 and 2000; American Community Survey, 1-year estimates, 2009.

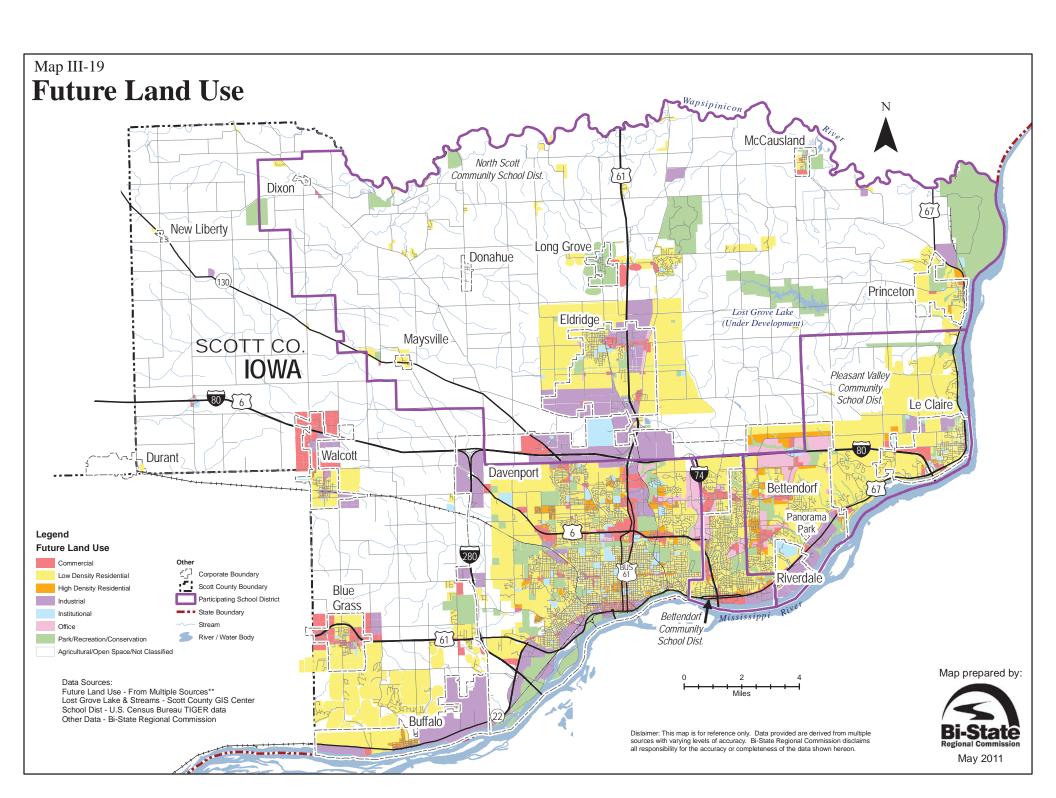
Residential building permits also reflect the growth of housing units in Scott County. An average of 494 single-family units and an average of 212 multi-family units have been built a year since 1999. In the past few years, private residential building permits have declined but it still shows there is a need within the county. The table below shows the residential building permits by year.

# **Scott County Privately Owned Residential Building Permits**

Year	Single Fan	nily	Multi Fam	ily	Total	
1 cai	Buildings	Units	Buildings	Units	Buildings	Units
1999	606	606	13	96	619	702
2000	474	474	17	227	491	701
2001	486	486	22	198	508	684
2002	583	583	32	322	615	905
2003	557	557	23	320	580	877
2004	607	607	26	214	633	821
2005	666	666	22	147	688	813
2006	538	538	18	156	556	694
2007	407	407	26	306	433	713
2008	274	274	11	60	285	334
2009	231	231	16	286	247	517

Source: U.S. Census Bureau - Manufacturing, Mining, and Construction Statistics; Annual Building Permits





### **Existing Land Use**

Utilizing the 2002 Land Cover of the State of Iowa (Source: U.S. Geological Survey), the current classified land cover in Scott County consists of mainly agriculture (58.08%), of which nearly 33% of the agriculture classifications is corn crops. The remaining areas in the county are classified as grassland (22.41%), forest (7.94%), water and wetlands (3.04%), roadways (2.99%), residential (2.89%), commercial/industrial (2.53%), and other (0.38%). Land cover classifications of the Iowa landscape were derived from satellite imagery collected between May 2002 and May 2003. Refer to the Map III-18 and Map III-16 for more details.

## **Future Land Use**

As Map III-19 shows, a significant increase in industrial areas is expected. An industrial corridor expansion is planned for northern Davenport, IA and southern Eldridge, IA along I-80 as well as along Highway 61 in Eldridge. The City of Buffalo also has an area of industrial expansion planned to the east of the city north of Highway 22. Large commercial expansions are planned in the Cities of Blue Grass and Walcott. The City of Bettendorf has large areas along I-74 and the northern city boarder to expand office areas. Low-density residential growth is expected in Blue Grass, Buffalo, Eldridge, and LeClaire.

As part of the planning process, communities were asked to indicate any known development trends within the next 5 years. Below is a summary provided by each of the communities of known development in commercial, residential, and other land use changes. The table at the end of this section (Development Trends by Jurisdiction) shows what type of development trends are planned in Scott County by type and place. (Note: Communities who indicated no development at this time are not included in the summary but are included in the table).

### • Unincorporated Scott County

- Commercial Development: Is usually discouraged in rural areas, however, development is possible near U.S. Hwy 61 and Y-48 intersection, as well as parts of Pleasant Valley.
- **Residential Development**: Approximately 100 residential lots in Park View. Development is also planned in Buffalo Township and Pleasant Valley.

#### Bettendorf

- **Commercial Development:** Areas north of Devils Glen Road and Middle Road; Middle Road and 53<sup>rd</sup> Avenue; and I-80 and Middle Road.
- **Residential Development:** Will mainly be concentrated north of 53<sup>rd</sup> Avenue and east of Devils Glen Road along Middle Road. Other development is planned from Devils Glen, north of 53<sup>rd</sup> and south of Forest Grove Road to the city boundary.
- Other Land Use Changes: Growth expected in the industrial park located south of Valley Drive, north of Mississippi River, and east of Riverdale. Areas west of Duck Creek and south of State Street are also available for industrial expansion.

#### Blue Grass

• **Commercial Development:** Development is expected along Burnside Lane and Mayne Street. There are seven commercial and 15 industrial lots available in the

- Scott County West Business Park subdivision and a commercial parcel available for development in Prairie Woods Estates subdivision near Highway 61.
- **Residential Development:** There are currently five residential subdivisions under development: Prairie Woods Estates (85 lot), Black Bear Crossing Subdivision (59 lot), Sheeder's 1<sup>st</sup> Addition (8 lot), Leighton's 1<sup>st</sup> Addition (12 lot), and Simmon's 1<sup>st</sup> Addition (3 lot). An additional subdivision (Towne & Country Manor) is in the development stage and will be approximately 29 acres.

# Davenport

- **Commercial Development:** Further development of the EIIC (Eastern Iowa Industrial Center) Business and Industrial Park in northern Davenport.
- **Residential Development:** Residential development is planned for western Davenport (approximately 100-200 units a year).
- Other Land Use Changes: Possible annexation of the EIIC Business and Industrial Park area, located in northern Davenport.

#### Donahue

• **Residential Development:** Residential expansion planned to the west of 7<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> Streets.

## Eldridge

- **Residential Development:** Two proposed residential developments: Townsend Farms (250 lots), and Rustic Green (50 lots).
- Other Land Use Changes: Additional rail spur in the southern part of town and a runway extension at the Davenport Municipal Airport.

#### LeClaire

- **Commercial Development:** Continued development in downtown area near the 300 block of Cody Road.
- **Residential Development:** Proposed multi-family and single family attached town homes (84 units).

### Long Grove

• **Residential Development:** Two proposed new subdivisions (20 and 30 lots).

#### Princeton

- **Commercial Development:** New businesses opening on River Drive (Restaurant and Boat Dock Manufacturing).
- **Residential Development:** New residential development, Holst Lost Grove Addition (6 lots).

### Riverdale

• **Residential Development:** Proposed residential housing development (Welch Farm).

#### Walcott

- **Commercial Development:** Development planned in the north side of city along I-80, as well as in the east side of city, and east of Blue Grass.
- **Residential Development:** Development planned for the west side of city to the city border (Westbrook Addition).

# **Development Trends by Jurisdiction**

	Proposed Commercial Development	Proposed Residential Development	Other Land Use Changes
Unincorporated Scott County	Y	Y	N
Bettendorf	Y	Y	Y
Blue Grass	Y	Y	N
Buffalo	N	N	N
Davenport	Y	Y	Y
Dixon	N	N	N
Donahue	N	Y	N
Eldridge	N	Y	Y
LeClaire	Y	Y	N
Long Grove	N	Y	N
Maysville	N	N	N
McCausland	N	N	N
New Liberty	N	N	N
Panorama Park	N	N	N
Princeton	Y	Y	N
Riverdale	N	Y	N
Walcott	Y	Y	N

# **Demographics**

This plan utilized the newest Census data that was available at the time complied. However, the 2010 Census data was released (February and May 2011) after the majority of the plan was written. The weighted hazard scoring was done with 2009 Census population estimates because the 2010 Census information was not available at the time hazard scoring was completed. The individual jurisdiction profiles have both the 2009 Census population estimates and the 2010 census population counts for each jurisdiction, and the population ranking was done using the 2010 Census population counts. Appendix II-5 includes a table with the populations of Scott County from 1950 to 2010 to show population growth and decline within Scott County.

## Individual Jurisdiction Risk Assessment Profiles

Included in this section are the individual profiles for each of the jurisdictions, Unincorporated Scott County, and participating school districts. Each profile provides a general background of the jurisdiction including: demographic statistics, history, land use, government, critical facilities (Map III-17), and hazard priorities. Each of the jurisdictions was ranked on population size and land area based on Scott County. The individual jurisdiction profiles have both the 2009 Census population estimates and the 2010 census population counts for each jurisdiction, and the population ranking was done using the 2010 Census population counts. Both numbers were included because at the time the plan was compiled the 2010 Census data was not available and 2009 population estimates are used throughout the rest of the plan. Appendix II-5 includes a table with the populations of Scott County from 1950 to 2010 to show population growth and decline within Scott County. Additional information can be found in the hazard profiles and development trends sections of the plan. Detailed Digital Flood Insurance Rate Maps (DFIRMs) for each jurisdiction can be found in Appendix III-2.

## City of Bettendorf

## Overview

• 2009 Census Population Estimate: 33,098

2010 Census Population: 33,217
County Rank in Population: 2
Land Area: 22.39 square miles
County Rank in Land Area: 3

## **History**

The City of Bettendorf is located in the area of the original Wisconsin Territory, and was part of the Black Hawk Purchase from the Sac and Fox Indians in 1832. The City of Bettendorf was originally known as Lillienthal. The city then changed its name to Gilbert in 1858, after Elias Gilbert who originally platted the town. Finally, in 1903 when the city was incorporated, the city was named after the Bettendorf brothers whose factory was an important part of the early development of the city.

Bettendorf's population was amplified with the opening of the ALCOA aluminum plant in 1948 (located in nearby Riverdale) and other manufacturing facilities. The population of Bettendorf more than doubled each decade from 1950 (5,134) to 1970 (22,126), steadily increasing thereafter.

# Land Use and Geography

The City of Bettendorf is located in south-eastern Scott County in Pleasant Valley Township in between the Cities of Davenport, Riverdale, Panorama Park, and LeClaire. Bettendorf is located along the Mississippi River, which is the prominent natural feature in the county. The major waterways in Bettendorf include Duck Creek, Crow Creek, Pigeon Creek, and Spencer Creek, along with lesser streams and tributaries. These waterways serve as drainage systems for the upland regions of Bettendorf and northern Scott County. According to Bettendorf's 2000 Comprehensive Plan, Bettendorf is primarily residential (58%). The rest of the city is classified

as commercial (14%), industrial (8.8%), and public (19.2%). Part of Bettendorf is in special flood hazard areas (see Appendix III-2); mainly along larger creeks (Duck Creek, Crow Creek, Pigeon Creek, and Spencer Creek). Bettendorf is the only jurisdiction in Scott County that has a levee (see Map III-3). The levee runs along the Mississippi River from approximately 10th Street (to the west) to the border with Riverdale along where Duck Creek empties into the Mississippi River. The levee was constructed in phases between 1982 and 1988 and protects approximately 449 acres and 294 residents. The entire local flood protection project which included the levee and a flood warning system was completed in 1990 (Army Corp Bettendorf Levee Operation and Maintenance Manual). According to the U.S. Army Corp of Engineers, the levee is valued at \$256,093. There is no known occurrence of sinkholes or land subsidence in Bettendorf.

#### Government Structure

Bettendorf is organized as mayor-council form of government. The city council consists of the mayor and seven city council members, one for each of the city's five wards and 2 "at large" council members. The mayor and city council members are elected to four year terms.

# City Departments

- Boards and Commission
- Fire Department
- City Administrator
- Human Resources
- City Attorney
- Library
- City Council
- Mayor
- Community Development

- Family Museum
- Parks and Recreation
- Economic Development
- Police Department
- Engineering
- Public Information Office
- Finance
- Public Works

#### Boards and Commissions

- Appeals Building Codes
- Park and Recreation Board
- Electrical Commission
- Planning and Zoning Commission
- Family Museum Board of Trustees
- Plumbing Commission
- Library Board of Trustees
- Zoning Board of Adjustments

#### Critical Facilities

Bettendorf has identified 144 community assets within the city. The critical facilities include administrative offices, public works facilities, fire stations, the police department, telecommunications towers, and bridges. Two critical facilities and five economic assets are located in the 1% Floodplain. Two critical facilities, one vulnerable population area and three economic assets are located within the 0.2% floodplain. Vulnerable populations include students at the elementary and secondary schools, medical care facilities, day cares, and trailer parks. Medical, economic assets and other facilities were also identified. These can be seen on Map III-17

#### Hazard Priorities

Following the hazard scoring process, the Bettendorf Hazard Mitigation Committee scored the hazards as shown in Table III-5 and Table III-6; however, upon seeing the rankings of hazards after completion of the Hazard Analysis and Risk Assessment, staff decided that reprioritizing the hazards was necessary. This new order of hazards was arranged to more correctly reflect the impact the type of hazard would have on human life, public health, community assets and damage to property. The type of incidents that were more likely to occur due to natural and manmade causes that could have the greatest impact on persons and property were placed higher in rank.

The City identified the first priority hazards such as structural fire due to historical occurrences within the City. Public education is continually needed to promote fire safety. The City includes flooding (both flash and river) in their top priorities due to their proximity to creeks and the Mississippi River. The City participates in the National Flood Insurance Program to mitigate flood hazards and will continue to do so. Levee failure is in the first priority level because the City has one of three levees within Scott County, and the only levee within an incorporated area. To prevent inundation of the levee, the City acknowledges the importance of routine inspections and maintenance. Hazards such as severe winter storm and windstorm occur frequently within the City and provide consistent damage and additional costs to the City. Downed trees from windstorms, thunderstorm and lightning, and severe winter storms can cause energy failures. Pre-treating roads during severe winter storms is essential in order to ensure safe travel of citizens and emergency responders and will also reduce the risk of highway transportation incidents within the City. Highway transportation incident also ranks high within Bettendorf. The City has larger intersections which become congested during peak travel times making the occurrence of an incident higher. Due to a tornado in 1997, tornados were also included in the first priority list. While Bettendorf does have housing stock with basements, public education on tornado safety is essential. The City puts an emphasis on planning and public education within their mitigation actions, but also includes structural projects, emergency services, property protection and natural resource protection actions to obtain a full range of mitigation measures. The City of Bettendorf's mitigation actions are listed in Chapter IV of this plan.

Using the goals identified in Chapter IV and following the definitions of First, Second and Third Priority, the Bettendorf Hazard Mitigation Committee re-ranked the hazard priorities, placing hazards with higher probability of occurring, immediacy of threat, and scale of threat within the First Priority level. The City of Bettendorf considers all first priority hazards to be equal in priority even though the hazards are given a numeric order.

- 1. Structural Fire
- 2. Flash Flood
- 3. Thunderstorm & Lightning
- 4. Hailstorm
- 5. Energy Failure
- 6. Severe Winter Storm
- 7. River Flooding
- 8. Tornado
- 9. Windstorm

- 10. Levee Failure
- 11. Structural Failure
- 12. Waterway Incident
- 13. Fixed Hazardous Materials Incident
- 14. Transportation of Hazardous Materials Incident
- 15. Highway Transportation Incident
- 16. Railway Transportation Incident
- 17. Pipeline Transportation Incident

## City of Blue Grass

### **O**verview

• 2009 Census Population Estimate: 1,349

2010 Census Population: 1,452
County Rank in Population: 7
Land Area: 2.92 Square Miles
County Rank in Land Area: 8

# Local History

The site of Blue Grass was originally on an Indian trail between the Mississippi River and the Cedar River. This area was the Indians' choice for their camping site, and over the years as they and their ponies trampled the taller grass, they noticed that the newer grass which sprouted up had a bluish tint (similar to Kentucky blue grass). This area became known as Blue Grass Point. Settlers began arriving in this area around 1836 and soon built log cabins and farmed the rich soil, which sold for about \$1.25 an acre.

The township originated, as did the town, being given the name "Blue Grass" when the post office was established in 1840. In 1853, the Village of Blue Grass was platted out by J.E. Burnside, John Perrin, and James Reynolds. Coal was discovered in the early 1850s. During one of the early mining digs, a mastodon skeleton was unearthed with the tusk measuring nearly 11 feet long. A second mastodon was discovered in the area in 1858.

In 1903, the town was incorporated. After a fire in August of that year, the need for fire equipment became very evident. To obtain the needed money by taxation, the town had to be incorporated.

# Geography and Land Use

The City of Blue Grass is located along the southwestern border of Scott County and extends into Muscatine County, Iowa, with the majority of Blue Grass located in Scott County. The city is bordered by unincorporated land with the U.S. Hwy 61 bi-pass running through the northern portion of the city. Blue Grass is primarily residential and agricultural with a small area of industrially and commercially zoned land south of U.S. Hwy 61 in eastern Blue Grass, along the Mayne Street corridor and south of U.S. Hwy 61 along Blue Grass's western corporate limits. No special flood hazard areas (see Appendix III-2) or levees are located within Blue Grass. There are no known occurrences of sinkholes or land subsidence in Blue Grass.

#### Government Structure

The City of Blue Grass has a mayor-council form of local government. The mayor is elected in two year terms, while the city council consisting of a mayor pro-tem and four other elected officials is elected to four year staggered terms. The city keeps a city attorney and a city engineer on retainer.

# City Departments

- Building Department
- Police Department

- Finance/City Administration
- Public Works

• Fire Department

### Boards and Commission

- City Council
- Plan & Zone Commission

- Park Board
- Zoning Board

### Critical Facilities

Critical facilities within the City of Blue Grass include City Hall; the Public Safety Building, which houses police, fire, and ambulance; post office; MidAmerican's substation; water plant; wells; and sewage lagoon. Economic assets include local banks, the U.S. Hwy 61, CY Y-40, local grocery and convenience stores, and a lumber yard. Vulnerable populations include the elementary school and local churches. No assets are located within the floodplain.

### Hazard Priorities

The City of Blue Grass has elected to utilize their individual hazard scores to create their top priority hazards. The City focused on hazards such as communication failure and energy failure because of their large impact on residents. They are focusing on making sure all public critical facilities are equipped with backup generators. The City understands the importance of flood education and is in the process of joining the National Flood Insurance Program and promoting it to its residents. The City focused on hazards such as thunderstorm & lightning, tornado, and severe winter storm due to their frequency within the City. The City will provide public education on the dangers of these hazards and what to do during a hazard event. The City of Blue Grass's mitigation actions are listed in Chapter IV of this plan. The top 12 (first priority) hazards for the City of Blue Grass are:

- 1. Communications Failure
- 2. Energy Failure
- 3. Thunderstorm & Lightning
- 4. Tornado
- 5. Windstorm
- 6. Hailstorm
- 7. Flash Flood
- 8. Severe Winter Storm

- 9. Structural Fire
- 10. Grass or Wildland Fire
- 11. Drought
- 12. Highway Transportation Incident
- 13. Transportation of Hazardous Materials Incident
- 14. Fixed Hazardous Materials Incident

# City of Buffalo

### **Overview**

• 2009 Census Population Estimate: 1,357

• 2010 Census Population: 1,270

• County Rank in Population: 8

• Land Area: 7.56 square miles

• County Rank in Population: 5

# Local History

Buffalo was the first city to be established in Scott County, and was first settled in December 1833 after the land was purchased as part of the Black Hawk Purchase in 1832. Buffalo was named after Buffalo, New York and was officially platted in 1836.

The population of Buffalo grew steadily up to 1970 at an average of 38.5% each decade, reaching its peak population of 1,531. From 1970 (1,531) to 1990 (1,260) the population experienced a decrease with an average of 9.3% each decade. Between 1990 and 2000 the population rebounded and increased to 1,321.

# Geography and Land Use

The City of Buffalo lies along the Mississippi River in the southwestern part of Scott County in Buffalo Township. Buffalo is bordered by Davenport to the east and Blue Grass to the north. State Highway 22 runs through downtown along the river. The City of Buffalo has special flood hazard areas that are located along the Mississippi River (see Appendix III-2). There are no levees located within the City of Buffalo. The City of Buffalo is the only jurisdiction in the county to have a known occurrence of land subsidence, which occurred at the Linwood Mine in 1993. Refer to the "Ground Subsidence and Sinkholes" hazard profile and (Map III-13 for more information about land subsidence in Scott County.

### Government Structure

The City of Buffalo has a mayor-council form of government. There are five city council members who serve four year terms. The mayor is elected to two year terms.

# City Departments

- Building Inspections
- Fire Department
- City Attorney
- Floodplain Ordinance Enforcement
- City Clerk Finance Officer

- Mayor
- City Council
- Police Department
- City Treasurer
- Public Works

### **Boards and Commissions**

- Board of Appeals
- Park Board
- Community Center Commission
- Plan & Zone Commission
- Local Disaster Relief Commission
- Zoning Board of Adjustment

#### Critical Facilities

Buffalo has identified 25 community assets within the city. The critical facilities include the fire station, police station, public works, and elementary school. Vulnerable populations include students at the primary school, daycares, and larger employers within the city. Economic, historical, and other facilities were also identified. These can be seen on Map III-17. One

critical facility and one economic asset are located in the 1% floodplain. Three economic assets are located in the 0.2% floodplain.

#### Hazard Priorities

The City of Buffalo chose to use the overall Scott County hazard rankings to formulate their first priority level hazards. The City identified hazards such as flooding (flash and river) due to its location on the Mississippi River. The City of Buffalo will focus on constructing and replacing culverts and floodgates to assist in high water times. The City is part of the National Flood Insurance Program and will continue participation. The City also focused on hazards such as windstorm, severe winter storm, and tornado as their top priorities. The City will promote the locations of community shelters and consider safe room construction where adequate facilities are not available. The City will also promote the use of social media as both an education tool and as a warning system for residents. The City of Buffalo's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of Buffalo are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# City of Davenport

### **O**verview

• 2009 Census Population Estimate: 101,309

• 2010 Census Population: 99,685

• County Rank in Population: 1

• Land Area: 65.12 Square Miles

• County Rank in Land Area: 2

# Local History

With the establishment of military outposts after the settlement of the War of 1812 in favor of the United States, white settlers moved westward into the old Northwest Territory. This movement displaced the Sauk and Fox Indians in western Illinois, and many skirmishes resulted between the Indians and white settlers. Under the leadership of Black Hawk, the Indians fought for their homeland during 1831 and 1832. The American military prevailed, and on September 21, 1832, Chief Keokuk signed a treaty known as the "Black Hawk Purchase" for the land along the Iowa bank of the Mississippi River from the Yellow River in the north to the Des Moines River in the south. In gratitude for his friendship and honesty toward the Indians as an interpreter, two square mile tracts from the Purchase were set aside for Antoine LeClaire.

In 1836 when land surveys were completed, settlement of the area increased. To encourage town building, seven men gathered at the home of Colonel George Davenport near Fort Armstrong on Arsenal Island. At the suggestion of Antoine LeClaire, "Davenport" was selected as the name

for the new city in honor of the Colonel. Davenport became a charter city in the Territory of Iowa in 1836 and won the battle to be the seat of Scott County by 1841.

Population grew slowly in the late 1830s and 40s. Transportation connections up the Mississippi and Ohio Rivers were seasonal and hazardous. But by 1850 a steady stream of settlers found its way to and through Davenport, mostly native-born Americans from New England, Mid-Atlantic States, and the Ohio Valley. During the 1850s, large numbers of German and Irish immigrated to the area. When the Mississippi River was bridged for the first time by the Rock Island Railroad in 1856, Davenport received an extra boost, beginning a half-century of uninterrupted growth after the Civil War. The lumber industry and related businesses, meat packing, flour mills, machine shops, and breweries were early employers.

As the 20th century approached, Davenport's economy was prosperous but changing. While the lumber industry was in decline, other industries like washing machine and cigar manufacturing expanded. Two new bridges connected Davenport as a major partner in the Iowa-Illinois Tri-Cities – the Government Bridge for wagons and trains was completed in 1895, and the Crescent Railroad Bridge was finished in 1901. After 1900, Davenport's urban character was enhanced. Electric streetcar lines panned the city's hills and outlying suburbs. Multi-story office buildings, banks, and hotels dotted the riverfront commercial area and railroad facilities improved. By the 1930s, river improvements were making river transit competitive again.

Today, transit is not limited to the Mississippi River, but also several major highways. Davenport is traversed by three interstate highways: I-80, I-280, and I-74. In addition, there are three U.S. Routes: 6, 61, and 67. The automobile bridges span the Mississippi River within Davenport's corporate limits: Centennial Bridge, Government Bridge, and the I-280 Bridge. The Davenport Municipal Airport in the northern part of the city serves general aviation. Railways within the city include the Iowa Interstate, and the Iowa Chicago and Eastern. Burlington Northern Santa Fe and Canadian Pacific utilize the Iowa Chicago and Eastern railway. Lock and Dam 15 on the Mississippi River is located in the downtown area of the city. Another dam is located at Scott County's West Lake Park along the city's western boundary.

# Geography and Land Use

The City of Davenport is located in south central Scott County. It is the largest incorporated jurisdiction within Scott County in terms of population and land area. It is bordered by the Mississippi River to the south, the City of Buffalo to the southwest, the City of Eldridge to the north, and the City of Bettendorf to the east. The city is primarily within the Mississippi River-Duck Creek watershed of Iowa. The topography is characterized by the low-lying Mississippi River floodplain, the adjacent river bluff, and gentle to rolling uplands dissected by the Mississippi River tributaries. Commercial, industrial, and older residential structures occupy the lowland and bluff areas while the northern portion of the community tends to contain more recent commercial and residential development. The City of Davenport has special floor hazard areas along its creeks and along the Mississippi River (see Appendix III-2). There are no levees located in Davenport, and there is no known occurrence of sinkholes or land subsidence.

#### Government Structure

Davenport has a Mayor–Council form of government with an appointed city administrator. Both the mayor and council are elected to 2-year terms. City council consists of ten elected officials with eight of those officials being elected to represent one of the eight wards within the city and

the other two are alderman-at-large. Emergency management operations are shared among the police department, the public works department, and the fire department. The fire department has seven stations located within the city. The Scott County Emergency Communications and Emergency Operations Center is currently under construction. The City of Davenport has not officially incorporated the Pre-Disaster Mitigation Plan 2007 into any other planning mechanisms; however certain activities, such as locally funded volunteer flood buy-out programs, have been funded through the Comprehensive Improvement Plan (CIP).

# City Departments

- City Administration
- Human Resources
- Davenport Civil Rights Commission
- Information Technology
- City Assessor
- Legal Department
- Community Planning & Economic Development

- Parks and Recreation
- Finance
- Police Department
- Fire Department
- Public Library
- Public Works

### **Boards and Commissions**

- City Council
- Cable Commission
- Civil Rights Commission
- Citizens Advisory Committee
- Airport Commission
- City Plan and Zone Committee
- Board of Review (Assessor)
- Civil Service Commission
- Davenport Youth Advisory Commission

- Davenport Riverfront Task Force
- Downtown Design Review Board
- Levee Improvement Commission
- Historic Preservation Commission
- Senior Voice
- Housing Code Board of Appeals
- Sister Cities
- Housing Commission
- Zoning Board of Appeals

### Critical Facilities

The City of Davenport inventory of community assets included 28 critical facilities. Critical facilities are City Hall, public work center, police department, fire stations, the Water Pollution Control Plant, Scott County Administrative Center, courthouse/sheriff's office, jail annex, engineering & planning, Emergency Communications Center, Iowa Department of Transportation, Army Aviation Support Facility, Army Reserve, U.S. Post Offices, MidAmerican Energy, Iowa American Water Company, AT&T, and communication towers. Of these facilities, four were reported as located within the Special Flood Hazard Area with only the Water Pollution Control Plant having flood mitigation mechanisms. Iowa American Water Co. has been approved for mitigation though it is not yet underway. The City of Davenport's critical facilities are detailed in Map III-17. Also included in the map are vulnerable populations, medical facilities, economic assets, and historical, cultural & natural resources. Vulnerable populations include high density residential areas, nursing and assisted living homes, schools, and mobile home parks. Five mobile home parks have at least a portion of their facility located

within the Special Flood Hazard Area (SFHA). An unknown number of filling stations (including convenience stores) are also located within the SFHA. Three critical facilities, a total of 6 areas of vulnerable populations, 13 economic assets, three historic/cultural buildings, and five other important structures are located within the 1% floodplain. Two critical facilities, two areas of vulnerable population, five economic assets, and one other important building are located within the 0.2% floodplain.

#### Hazard Priorities

Due to the difference in scoring methodologies, including not using the cascading matrix, there was a discernable difference between the hazard scores between the 2007 Davenport Plan and this Plan. After reviewing the newly scored hazards, the City of Davenport elected to continue using the priority rankings from the 2007 Davenport Plan. The Davenport priority hazards were altered from the 2007 Davenport Pre-Disaster Mitigation Plan by separating out individual hazards. Highway Transportation Incident, Transportation of Hazardous Materials, and Transportation of Radiological Materials all share a similar thread by being transportation related. The 2007 Davenport plan combined these hazards into "Highway Incidents." Windstorm, Thunderstorm & Lightning, and Hailstorm were combined into "Thunderstorm Incidents" and Communications Failure and Cyber Terrorism were combined into "Communications Failure." In order to maintain consistency throughout the Scott County Multi-Jurisdictional Hazard Mitigation Plan, the City of Davenport agreed to separate the hazards out. Below is a comparison of the top hazard priorities between the previous plan and the plan update.

City of Davenport Hazard Priorities			
	Previous Plan		Plan Update
1.	Highway Incidents Combined	1.	Highway Transportation Incident
2.	Flash Flood	2.	Transportation of Hazardous Materials
3.	Severe Winter Storm	3.	Transportation of Radiological Materials
4.	Communications Failure Combined	4.	Flash Flood
5.	Thunderstorm Incidents Combined	5.	Severe Winter Storm
6.	Rail Transportation Incident	6.	Communications Failure
7.	River Flood	7.	Cyber Terrorism
8.	Air Transportation Incident	8.	Thunderstorm & Lightning
9.	Fixed Hazardous Materials Incident	9.	Windstorm
10.		10.	Hailstorm
11.		11.	Railway Transportation Incident
12.		12.	River Flood
13.		13.	Air Transportation Incident
14.	- <del></del>	14.	Fixed Hazardous Materials Incident

The City of Davenport has a considerable network of local roads as well as state and interstate highways. As shown on Map III-9b, there is a large volume of Highway Transportation Incidents within the City of Davenport, and this will continue to be of concern to the City with this Plan update. The Transportation of both Hazardous and Radiological Materials is a result of its location and transportation network within the City Limits. The City is also a manufacturing

center with several large and small scale manufacturing operations. There are a large number of Tier II facilities within the City of Davenport and historically, Davenport has the highest occurrence of Fixed Hazardous Materials Incidents within the county. Creeks within the City of Davenport are susceptible to Flash Floods in particular along Duck Creek which cuts through the middle of the City. Flash floods have severely damaged houses along the creeks as well as along the Mississippi River which routinely floods. The City is making efforts to remove flood damaged properties from the floodplain and will continue to do so when funding is available. The City does participate in the National Flood Insurance Program and the Community Rating Service and will continue to utilize floodplain and stormwater management to mitigate the effects of flooding. The consolidated emergency dispatch center is located within the City of Davenport. Failure of that dispatch center would severely impact not only Davenport, but the entire county. Davenport also is the headquarters of multiple large companies who could be affected by cyber terrorism. The City also acknowledges that with groups such as Anonymous, hacking into websites is common. Severe Winter Storms, Thunderstorm & Lightning, Windstorms and Hail frequently occur within the City of Davenport and can cause large amounts of damage to property and result in the loss of power. Two railroads run through the City of Davenport, and there have been Railway Transportation Incidents that have resulted in the loss of life as well as property damage. While no specific mitigation actions with this hazard are outlined in their mitigation strategy, the City does acknowledge the severity of the damage incidents involving railroads can cause. Finally, the City does have one of the most active general aviation airports within Iowa. Historical occurrences show property damage and fatalities have occurred. The City's mitigation actions listed in Chapter IV show a balance of mitigation measures.

## City of Dixon

### Overview

• 2009 Census Population Estimate: 256

2010 Census Population: 247
County Rank in Population: 14
Land Area: 0.13 Square Miles

• County Rank in Land Area: 15

# Local History

Dixon was settled in the early 1800s by several pioneering families. Rudolphus S. Dickinson moved to Dixon sometime after 1842 and constructed a combination hotel/saloon/mercantile building that is still in use today.

# Geography and Land Use

Dixon is located in northwest Scott County approximately 1.5 miles south of the Wapsipinicon River. Dixon is situated in eastern Liberty Township and western Allens Grove Township. No highways run through Dixon. The major roads through Dixon are County Road Y40, which runs north/south, and County Road Y4E, which runs east/west. The City of Dixon is primarily residential with Dixon Cemetery located on the west side of the city. A Special Flood Hazard Area exists along Walnut Creek, which is located to the north of the city (see Appendix III-2). There are no levees located within the city, and there are no known occurrences of land subsidence in Dixon.

# Government Structure

The City of Dixon has a mayor-council form of local government. The mayor and a five-member city council are elected to four year staggered terms. The city keeps a city attorney on retainer.

# City Departments

- Administration
- Sewer
- Fire Department

- Water
- Police Department (operated by County Sheriff

## City Boards and Commissions

• Planning and Zoning Board

#### Critical Facilities

Critical Facilities within the City of Dixon include the water tower, lift station, sewer lagoon, and fire department. Locations of all critical facilities can be found on Map III-17. There are no assets within the floodplain.

#### Hazard Priorities

The City of Dixon chose to use the countywide Scott County hazard rankings to formulate their first priority level hazards. The City chose to focus on severe winter storms due to their location in the county. The City sits in the northwest corner of the county and has an intergovernmental agreement with the county for plow service. Pre-treating the roads prior to a severe winter storm will assist with necessary travel and lessen the impact on the road service crews. The City also focused on hazards such as thunderstorm & lightning due to frequent occurrences. Continual public education is essential to keeping the residents informed on the dangers of hazards and what to do during a hazard event. The City of Dixon's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of Dixon are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# **City of Donahue**

### Overview

• 2009 Census Population Estimate: 326

• 2010 Census Population: 346

• County Rank in Population: 12

• Land Area: 0.37 square miles

County Rank in Land Area: 13

# Local History

The City of Donahue began as a train depot for the Davenport & St. Paul Railroad (later the Chicago & Milwaukee). The depot was built on a farm where the tracks ran through and named for the former mayor and railroad stakeholder, Michael Donahue. Donahue gradually began to grow and organize into a town around the train depot. The City of Donahue was officially incorporated in 1909.

The City of Donahue has grown an average of 30% each decade from 1940 to 1990, with the exception of 1960 to 1970 when the population more than doubled from 133 to 216. Donahue's population reached its peak in 1990 at 316, and then experienced a decline of 7.3% in 2000 (293).

# Geography and Land Use

The City of Donahue is located in the north central part of Scott County, west of Long Grove in Allen's Grove Township. Donahue is primarily residential and agricultural. The City of Donahue has special flood hazard areas along a tributary of Mud Creek (see Appendix III-2). There are no levees located in Donahue, and no known occurrences of land subsidence.

#### Government Structure

The City of Donahue has a mayor-council form of government. There are five city council members. The mayor and the city council are elected to four year terms.

# City Departments

- City Attorney
- City Treasurer
- City Clerk

- Floodplain Ordinance Enforcement
- City Council
- Mayor

### **Boards and Commissions**

Board of Adjustment

Planning & Zoning Board

#### Critical Facilities

Critical facilities within the City of Donahue include City Hall, city equipment building, volunteer fire department, water and wastewater treatment plants, elementary school, bank, grain terminal, and a park. Locations of all critical facilities can be found on Map III-17. Donahue has one historic/cultural structure in the 1% floodplain.

#### Hazard Priorities

The City of Donahue chose to use the overall Scott County hazard rankings to formulate their first priority level hazards. The City identified hazards such as flooding as a top priority due to its proximity to Mud Creek and special flood hazard areas. The City participates in the National Flood Insurance Program and will continue to do so. The City will also put emphasis on maintaining and constructing drainage systems to assist in high water times. The City also focused on hazards such as severe winter storm and thunderstorm & lightning due to their frequency and larger impact on the community. The City recognizes the importance of having roads clear during severe winter storms to assist with emergency responders. The City of Donahue's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of Donahue are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# City of Eldridge

### Overview

• 2009 Census Population Estimate: 5,371

2010 Census Population: 5,651
County Rank in Population: 4
Land Area: 9.53 square miles
County Rank in Land Area: 4

## Local History

In 1846, Jacob Eldridge moved west and purchased land north of Davenport from the U.S. Government. The building of a railroad line in Eldridge brought more settlement and business to the area during the latter half of the 1800s. Mr. Eldridge donated the land in 1871, and on July 2, 1871, Eldridge Junction was officially incorporated in Scott County.

Eldridge has undergone several population increases over the past 50 years. Between 1960 and 1970, the population nearly tripled from 583 to 1,535; then more than doubled by 1980 to 3,279. The population steadily increased up to 2000 (4,159) then experienced another increase in population resulting in the conduction of a special census in 2004 (4,807).

# Geography and Land Use

The City of Eldridge is located in the center of Scott County along U.S. Hwy 61 just north of the City of Davenport in Sheridan Township. According to Eldridge's Comprehensive Plan (1993, revised 2003), Eldridge is primarily agricultural (69.58%). The remainder of the city is defined as low-density residential (8.71%), high-density residential (1.10%), commercial (1.55%), industrial (5.65%), recreational (2.94%), and not classified (8.31%). Residential development is mainly in the northwest section of town while industrial is clustered in the southern portion.

The City of Eldridge has special flood hazard areas along Creeks (Crow Creek and Hickory Creek) that mainly affect agricultural areas of the city (see Appendix III-2). There are no levees located in Eldridge, and no known occurrences of land subsidence.

#### Government Structure

The City of Eldridge has a mayor-council form of government. There are five city council members. Both the mayor and city council members serve four year terms.

# City Departments

- Building Inspections
- Fire Department

- City Administrator
- Mayor

- City Attorney
- Police Department
- City Clerk
- Public Works

- City Council
- Utilities, Water and Wastewater Departments

#### Boards and Commissions

- Community Center Board
- Electric, Water, and Utility Board
- Park Board

- Plan & Zone Board
- Zoning Board of Adjustment

#### Critical Facilities

Eldridge has identified 53 community assets within the city. The critical facilities include City Hall, the police department, fire department, water treatment plant, city wells, wastewater treatment plant, public works, and water towers. Vulnerable populations include students at the elementary and secondary schools, preschools, and medical facilities. Medical, economic assets and other facilities were also identified. These can be seen on Map III-17. Eldridge has one critical facility in the 1% floodplain.

### Hazard Priorities

The City of Eldridge adapted their individual hazard scores to create their top priority hazards. The City identified first priority hazards such as fixed hazardous materials incident due to the impact it would have on the population. The City is focusing on creating a traffic re-routing plan and posting warning signs near facilities. Flooding is also a priority due to the City's location near two creeks. The City is a participant in the National Flood Insurance Program, and enforces floodplain regulations. The City also understands the necessity for essential services during hazard events, they are providing back up power to facilities such as the water treatment plant to ensure residents have all services if possible. Hazards such as thunderstorms & lightning and windstorms can cause energy failures. The City is educating their residents on the importance of tree maintenance and ensuring they are up to date on building codes. The City also knows the importance of being prepared for when a drought occurs. They are creating a water conservation plan that will be the guide to maintaining water systems and educating citizens on the importance of water conservation. The City of Eldridge's mitigation actions are listed in Chapter IV of this plan. Eldridge's First priority hazards are as follows:

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. Transportation of Hazardous Materials Incident
- 6. Severe Winter Storm

- 7. Energy Failure
- 8. Highway Transportation Incident
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Drought

### City of LeClaire

### **O**verview

• 2009 Census Population Estimate: 3,081

2010 Census Population: 3,765
County Rank in Population: 5
Land Area: 5.065 Square Miles
County Rank in Land Area: 6

# Local History

Sauk and Fox tribes inhabited the region and the river bluffs where LeClaire is today. A battle occurred in the area between LeClaire and Princeton, north of LeClaire in 1804 where 1000 Native Americans were killed. As part of a peace treaty, native tribes gave a section of land at the head of the Upper Rapids to Antoine LeClaire. The land is the current location of the City of LeClaire. From 1840 to 1910 LeClaire was known as a river community. Riverboat captains lived in the community who were skilled at navigating the dangerous fifteen-mile stretch of the Mississippi River known as the Upper Rock Island Rapids. The community was platted in 1836 and received its charter in 1834. The city flourished with sawmills, flour mills, a plow factory, boat yards, and a variety of stores and shops. Buffalo Bill Cody was born in 1846 two miles north of LeClaire, and the Buffalo Bill Cody Museum is located in LeClaire.

# Geography and Land Use

The City of LeClaire is situated in the northeastern portion of the Quad Cities Metropolitan Area in southern LeClaire Township. The Mississippi River and U.S. Hwy 67 borders the eastern and southern part of the community, while Interstate 80 bisects the southwestern third of the community. The unincorporated community of Pleasant Valley is located to the west of LeClaire. An active quarry operates on the north side of the city and taps into bedrock including sandstone, limestone, shale, and dolomite. LeClaire has steep slopes along the riverfront bluff area and in the vicinity of Silver Creek. More gentle slopes are found on top of the bluff west of the riverfront area. LeClaire has special flood hazard areas along the Mississippi River, Silver Creek, McCarty Creek, and Sycamore Creek and their tributaries (see Appendix III-2). There are no levees located in LeClaire and no know occurrences of land subsidence.

According to the LeClaire 2002 Comprehensive Plan, 68.7% of LeClaire's existing land use is agricultural or open, 19.98% of the area is low density residential; .47% high density residential; 1.87% commercial; 3.07% industrial; 4.57% institutional; and 1.34% recreational.

#### Government Structure

LeClaire has a Mayor–Council form of government with an appointed city administrator. The mayor is elected to a 2-year term while the council members are elected to 4-year staggered terms. City council consists of five elected officials. LeClaire keeps an attorney on retainer.

# City Departments

- City Administration
- Police Department
- Fire Department

- Public Works
- Library

### **Boards and Commissions**

- Board of Adjustment
- Recreation Board
- Levee Board
- Library Board

- Park Board
- Tourism Board
- Plan and Zone Commission

### Critical Facilities

Critical facilities within the City of LeClaire include City Hall, public works facility, waste water treatment plant and lift stations, police station, fire station, the Mississippi River, I-80 Bridge, Sycamore Creek Bridge, McCarty Creek Bridge, U.S. Hwy 67, Interstate 80, Lock and Dam 14, an electrical substation, natural gas regulating substation, water tower, and water pressure regulating stations. These can be seen on Map III-17. LeClaire has one critical facility, one historic/cultural structure, and one other important structure in the 1% floodplain. There is one building classified as "other important structure" within the 0.2% floodplain.

### Hazard Priorities

The City of LeClaire adapted their individual hazard scores to create their top priority hazards. The City identified first priority hazards like highway transportation incident due to the location of major highways (I-80 and U.S. 67) through the City. The City understands the importance of utilizing traffic calming measures and pre treatment of roadways prior to storms to help lessen the likelihood of an incident. The City also looked at hazards such as windstorm, thunderstorm & lightning, and severe winter storms. These hazards occur more frequently and can impact residents. The City understands the importance of educating residents about tree health, snow removal policies, and shelter locations to lessen the impacts during hazard events. The City will identify critical facilities where backup generators could be installed, limiting the impact of energy failures. The City is located along the Mississippi River and numerous creeks. The City is a participant in the National Flood Insurance Program and will look into conducting a watershed study. The City has had historical occurrences of tornado touchdowns and will consider safe room construction where adequate facilities do not exist. The City of LeClaire's mitigation actions are listed in Chapter IV of this plan. LeClaire's First Priority hazards are:

- 1. Structural Fire
- 2. Windstorm
- 3. Highway Transportation Incident
- 4. Thunderstorm & Lightning
- 5. Tornado
- 6. Railway Transportation Incident

- 7. Severe Winter Storm
- 8. Conventional Terrorism
- 9. Energy Failure
- 10. River Flooding
- 11. Cyber Terrorism
- 12. Waterway Incident

# City of Long Grove

### **Overview**

• 2009 Census Population Estimate: 771

• 2010 Census Population: 808

• County Rank in Population: 10

• Land Area: 1.03 square miles

County Rank in Land Area: 11

# Local History

The City of Long Grove was first settled in 1838 after the Blackhawk Purchase. Among the first settlers were the Brownlie brothers who built the first house in Long Grove, a 2-story sod house that still stands in its original place today (The Alexander Brownlie House is on the National Register of Historic Places). Long Grove's name came from the long narrow strip of trees that originally surrounded the area of the present day city.

The City of Long Grove's population grew steadily by 14.5% each decade up until 1970 when the population increased by 47.8% to 269. The largest population gain was between 1970 and 1980 when the population more than doubled to 596. Since 1980, the population of Long Grove has remained stable, fluctuating by less than 10 persons, reaching its peak in 1990 at 605.

# Geography and Land Use

The City of Long Grove is located in the north central part of the county, just north of Eldridge in between Donahue and Park View (an unincorporated part of the county) in Winfield Township. Within the city limits, Long Grove is mainly single-family residential and suburban agriculture. There are small commercial districts near the center of the city on First Street and along County Road F-41. Long Grove does not have an industrial land use policy and there is no industrial district on the Long Grove official zoning map (Long Grove Comprehensive Plan, 2007).

The City of Long Grove has a small area of town that is in the special flood hazard area near the sewage lagoon (see Appendix III-2). There are no levees within Long Grove and no known occurrences of land subsidence.

#### Government Structure

Long Grove is organized as mayor-council form of government. The city council consists of the mayor and five city council members. The mayor is elected to a two-year term and city council members are elected to four-year terms.

# City Departments

- City Attorney
- City Council

- City Clerk
- Mayor

### **Boards and Commissions**

Park Board

Planning and Zoning Commission

#### Critical Facilities

Critical facilities within the City of Long Grove include City Hall, fire station, water and wastewater treatment plants, municipal electric system, post office, and civic center. An elementary school has been identified as a vulnerable population. These can be seen on Map III-17. There are no assets within the floodplain.

### Hazard Priorities

The City of Long Grove reviewed the County-Wide hazard priorities and elected to modify their hazard priorities. The City decided to focus on hazards such as pipeline transportation incident

due to the location of a gas pipeline that runs through the city. The City also recognizes the importance of keeping building codes current, which aid in limiting the impact of certain hazards like tornados and structural fire. Hazards such as severe winter storms, windstorm, and thunderstorm & lightning are frequent occurrences in the City. The City will look into constructing a new sand/salt storage facility in order to be better prepared for storms. The City will also be examining public facilities that need backup generators to be able to provide residents with essential services during hazard events. The City of Long Grove's mitigation actions are listed in Chapter IV of this plan. Below are the City of Long Grove's First Priority hazards:

- 1. Energy Failure
- 2. Severe Winter Storm
- 3. Tornado
- 4. Windstorm
- 5. Pipeline Transportation Incident
- 6. Thunderstorm & Lightning
- 7. Hailstorm
- 8. Drought

- 9. Earthquake
- 10. Structural Fire
- 11. Highway Transportation Incident
- 12. Structural Failure
- 13. Fixed Hazardous Materials
- 14. Transportation of Hazardous Materials Incident

# City of Maysville

### Overview

• 2009 Census Population Estimate: 164

2010 Census Population: 176
County Rank in Population: 15
Land Area: 0.24 square miles
County Rank in Land Area: 14

# Local History

The City of Maysville began in 1851 when Captain James May purchased land from German immigrants that had settled in the area a few years before. Captain May wanted to have a town bearing his name, and in 1856 the town of Maysville was officially platted.

Beginning in 1940, the City of Maysville grew significantly, almost doubling in size by 1950. Maysville's population peaked in 1970 at 170, then decreased to 151 by 1980 only to reach its peak again in 1990 (170) before decreasing again slightly to 163 in 2000.

# Geography and Land Use

The City of Maysville is located in the west-central part of Scott County along U.S. Highway 130, north of Walcott and Davenport and west of Eldridge in Hickory Grove Township. Maysville is single-family residential and surrounded by agriculture. Hickory Creek lies to the north of town. There are no special flood hazard areas (see Appendix III-2), levees, or any known occurrences of land subsidence in the City of Maysville.

#### Government Structure

Maysville is organized as mayor-council form of government. The city council consists of the mayor and five city council members. The mayor and city council members are elected to two-year terms.

# City Departments

- City Attorney
- Mayor
- City Clerk

- Treasurer
- City Council

### Critical Facilities

The critical facilities of Maysville have been identified as fire station, city water facilities, and community center. These can be seen on Map III-17. There are no assets within the floodplain.

#### Hazard Priorities

The City of Maysville chose to use the county-wide Scott County hazard rankings to formulate their first priority hazards. The City focused on hazards such as severe winter storms and energy failure. These hazards happen frequently within the City and can impact many residents. The City will continue to communicate the location of community shelters to its residents. The City emphasizes that public education of the dangers of tornados and what to do during a storm is very important. The City also focused on structural fire and encourages the use of smoke detectors. The City of Maysville's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of Maysville are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# City of McCausland

#### **O**verview

2009 Census Population Estimate: 305

• 2010 Census Population: 291

• County Rank in Population: 13

• Land Area: 0.56 Square Miles

County Rank in Land Area: 12

# Local History

The City of McCausland was named after the McCausland brothers who owned a large amount of farmland in the area and had several other successful business endeavors. McCausland was

established in 1882 for a town and railroad station along the BCR&N railroad and incorporated in 1909.

# Geography and Land Use

McCausland is located in the northeastern corner of Butler Township in northeastern Scott County just south of the Wapsipinicon River. A special flood hazard area is located in the north and south eastern part of the city (see Appendix III-2). There are no levees located in McCausland, and no known occurrences of land subsidence. McCausland is primarily agricultural and residential use with a small portion of commercial. McCausland Cemetery is located in the northern part of the city. County Road F33 and Z30 are the major roads running through McCausland.

#### Government Structure

The City of McCausland has a mayor-council form of government with both the mayor and the 5-member city council serving 4-year staggered terms. McCausland has an attorney on retainer and a volunteer fire department.

# City Departments

- Administration
- Police Department

Maintenance

# City Boards and Commissions

Park Board

Labor Day Committee

#### Critical Facilities

The critical facilities of McCausland have been identified as City Hall, fire station, city sewer lagoon, and community center. The city has also identified two local businesses economic assets. These can be seen on Map III-17. There are no assets within the floodplain.

### Hazard Priorities

The City of McCausland chose to use the overall Scott County hazard rankings to formulate their first priority level hazards. The City identified first priority hazards such as flooding (river and flash) due to their proximity to the Wapsipinicon River. The City is in the process of joining the National Flood Insurance Program and understands the importance of educating their residents about the floodplain. Hazards such as thunderstorms & lightning and windstorms occur frequently within the City often the cause of energy failures. The City recognizes the importance of having backup generators at critical facilities and educating the residents about what to do during storms. The City will also look at constructing safe rooms where adequate facilities do not exist. Severe winter storms can impact all residents, the City will take a proactive approach by pre treating roads and educating their residents about snow removal policies. The City of McCausland's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of McCausland are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm

- 5. River Flood
- 6. Transportation of Hazardous Materials Incident
- 7. Highway Transportation Incident
- 8. Severe Winter Storm

- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# City of New Liberty

### Overview

• 2009 Census Population Estimate: 135

2010 Census Population: 137
County Rank in Population: 16
Land Area: 0.09 square miles
County Rank in Land Area: 16

# Local History

The City of New Liberty was originally located on the stage coach route on the Red Star Road (now Highway 130). New Liberty began in 1880 when the newly completed B.C.R & N. Railroad built a station (the last train ran through the City on January 31, 1940). New Liberty was originally platted in 1886 and was officially incorporated in 1909.

The City of New Liberty has experienced little change in its population over the past 70 years. The greatest increase in population occurred between 1950 (126) to 1960 when the population reached its peak at 145. Since then, the population has declined each decade to 121 in 2000.

# Geography and Land Use

The City of New Liberty is located in the northwest corner of Scott County in Liberty Township. The city is located on State Hwy 130, which runs directly through town. New Liberty is primarily single-family residential and agriculture. There are no special flood hazard areas (see Appendix III-2), levees, or any known occurrences of land subsidence within the City of New Liberty.

### Government Structure

New Liberty is organized as mayor-council form of government. The city council consists of the mayor and five city council members. The mayor is elected to a two-year term and city council members are elected to four-year terms.

## City Departments

- City Clerk
- Mayor
- City Council

- Water Superintendent
- City Treasurer

#### Critical Facilities

The critical facilities of New Liberty have been identified as City Hall, city water and wastewater facilities, and the city park shelter. These can be seen on Map III-17. There are no assets within the floodplain.

### Hazard Priorities

After reviewing their weighted hazard scores as shown in Table III-5 of this chapter, the City of New Liberty determined the top twelve hazards ranked by scoring were hazards that the City had little to no control or authority to mitigate. The City reviewed the County-Wide hazard priorities and determined those as more appropriate to their City authority and ability; however River Flood, Flash Flood and Fixed Hazardous Materials Incident were replaced with Drought, Extreme Heat, and Grass or Wildland Fire. The City of New Liberty has no floodplain or areas with known flash flooding, and there are no fixed hazardous materials sites within the City. The City identified the first priority hazards such as tornados due to historical occurrences within the City. Hazards such as severe winter storm, thunderstorm & lightning, and extreme heat occur frequently in the City. Public education is continually needed about the dangers of the hazards, what to do during a hazard and use of NOAA weather radios. The City of New Liberty's mitigation actions are listed in Chapter IV of this plan. The top priority level hazards for the City of New Liberty are:

- 1. Tornado
- 2. Severe Winter Storm
- 3. Energy Failure
- 4. Thunderstorm & Lightning
- 5. Structural Fire
- 6. Windstorm

- 7. Transportation of Hazardous Materials Incident
- 8. Highway Transportation Incident
- 9. Hailstorm
- 10. Drought
- 11. Extreme Heat
- 12. Grass or Wildland Fire

# City of Panorama Park

#### **O**verview

• 2009 Census Population Estimate: 131

2010 Census Population: 129County Rank in Population: 17

• Land Area: 0.06 Square Miles

• County Rank in Land Area: 17

# Local History

In 1953 the City of Bettendorf planned to annex the area where the town of Panorama Park is located. The local community did not want to be annexed and gathered enough signatures to incorporate and become a community. The town was named Panorama Park for the view and after Park Avenue, which was the only street in the community at the time.

# Geography and Land Use

Panorama Park is the city with both the smallest land area and lowest population within Scott County. Panorama Park is completely surrounded by the City of Bettendorf in southern Scott County. Panorama Park is zoned entirely for single-family residential use. A special flood

hazard area is located south of 2nd Street to the corporate limits (see Appendix III-2). There are no levees located in Panorama Park and no known occurrences of land subsidence.

#### Government Structure

The City of Panorama Park has a mayor-council form of local government. Both the mayor and the city council, consisting of five elected officials, are elected to two-year terms.

#### Critical Facilities

City Hall is Panorama Park's only critical facility and asset. It is not located within the floodplain.

# Hazard Priorities

The City of Panorama Park originally chose to use the Scott County hazard rankings to formulate their first priority level hazards. However after further review the City decided it would focus on those more appropriate to their City. The City added railway transportation incident, and removed hailstorm, fixed hazardous materials incident, and river flooding. The City included hazards such as tornado, severe winter storm, and thunderstorm & lightning due to the frequency of their occurrence in the City. The City puts an emphasis on educating their residents on the dangers of hazards and locations of community shelters. The City consists of all single family residences and also put a focus on structural fire, by educating the importance of having smoke detectors and what to do during a fire. The City of Panorama Park's mitigation actions are listed in Chapter IV of this plan.

- 1. Tornado
- 2. Severe Winter Storm
- 3. Energy Failure
- 4. Thunderstorm & Lightning
- 5. Flash Flood
- 6. Structural Fire

- 7. Windstorm
- 8. Transportation of Hazardous Materials
- 9. Railway Transportation Incident
- 10. Highway Transportation Incident

#### City of Princeton

#### Overview

2009 Census Population Estimate: 964

• 2010 Census Population: 886

• County rank in Population: 9

• Land Area: 2.53 square miles

• County Rank in Land Area: 9

# Local History

The City of Princeton was originally a Fox Nation Village. The first settlers arrived in 1835 and began to establish the area. The City of Princeton was known as Pinneo's Landing, Pinnacle Point, and Elizabeth City. After 1845, the area was collectively known as Princeton, which was a popular name at the time. The City of Princeton was incorporated in January 1857. Major industry in the early years of Princeton revolved around the river and agriculture, including a flourishing clamming industry that lasted until 1916. Today, the City of Princeton is a bedroom

community surrounded mainly by agriculture. Princeton offers many recreational opportunities including a wildlife area, beach island, and marina.

# Geography and Land Use

The City of Princeton is located along the Mississippi River in the northeast part of the county, just north of LeClaire and south of the Wapsipinicon River in Princeton Township. U.S. Highway 67 runs through the city alongside the Iowa-Chicago and Eastern Railroad. According to Princeton's Land Use Plan (2007), Princeton is primarily agriculture (87.99%). The rest of the city is classified as low-density residential (8.21%), high-density residential (1.41%), commercial (0.28%), industrial (0.23%), institutional (0.81%), and recreation (1.06%). The City of Princeton has special flood hazard areas that are located along the Mississippi River and the tributary creeks that drain into the Mississippi River (see Appendix III-2). There are no levees located within Princeton and no known occurrences of land subsidence.

#### Government Structure

The City of Princeton has a mayor-council form of government. The mayor is elected to two-year terms and there are five city council members who serve four-year terms.

# City Departments

- City Attorney
- City Clerk/Treasurer
- City Council
- City Engineer

- Fire Department
- Mayor
- Police Department
- Public Works

#### **Boards and Commissions**

- Board of Adjustment
- Park Board

- Bolls Community Center Board
- Planning & Zoning Commission

#### Critical Facilities

Princeton has identified 25 community assets within the city. The critical facilities include City Hall, fire and police departments, maintenance buildings, city water and wastewater facilities, and other city buildings. Vulnerable populations include elementary school, mobile home park, and senior housing. One cultural resource was also identified. These can be seen on Map III-17. Princeton has three critical facilities located within the 1% floodplain. One building of historical or cultural significance is located in the 0.2% floodplain.

#### Hazard Priorities

The City of Princeton elected to utilize their individual hazard scores in selecting their top hazard priorities. The City focused on hazards such as flooding (river and flash) in their first priority hazards due to their proximity along the Mississippi River and tributary creeks. The City recognizes the importance of public education regarding flooding and implementing flood control measures that help lessen the impact of an event. They also realize the importance of planning before flooding events and will be creating a detour and road closure plan. Energy failure is a concern for the City, which can be caused by many different events. The City will look into installing backup generators at critical facilities to ensure residents are not without essential services. The City is considering safe room construction in areas where adequate facilities do not exist to be prepared for tornados, windstorms, and other events where residents

would need additional shelter. The City of Princeton's First Priority Hazards are listed below and their mitigation actions are listed in Chapter IV of this plan

- 1. Tornado
- 2. Structural Fire
- 3. River Flooding
- 4. Highway Transportation Incident
- 5. Waterway Incident
- 6. Flash Flood
- 7. Grass or Wildland Fire
- 8. Drought

- 9. Transportation Hazardous Materials Incident
- 10. Extreme Heat
- 11. Levee Failure
- 12. Pipeline Transportation Incident
- 13. Energy Failure
- 14. Severe Winter Storm

# City of Riverdale

#### **O**verview

- 2009 Census Population Estimate: 602
- 2010 Census Population: 405
- County Rank in Population: 11
- Land Area: 2.18 Square Miles
- County Rank in Land Area: 10

# Local History

In 1912, Col. G. W. French established Iowana Dairy Farms in what is today the Town of Riverdale. French's herd of Holstein cattle became one of the largest and most outstanding in the United States. After the death of Col. French, Glenn Moore took over part of the operation as Iowana Milk Farm, and G. Decker French operated the other part of the operation as Iowana Holstein Farm. The Aluminum Company of America, (ALCOA) moved to Davenport, Iowa in 1946. By the middle of 1948, the new plant construction was finished and the first operation began in 1949 in Riverdale, Iowa

The Town of Riverdale was incorporated December 27, 1950. After a three-year incorporation challenge by the City of Bettendorf, the Iowa Supreme Court upheld the incorporation, and the Town of Riverdale was granted its independence on February 10, 1953.

# Geography and Land Use

The City of Riverdale is located in southern Scott County in southern Pleasant Valley Township. Riverdale is bordered by the Mississippi River to the south, and the City of Bettendorf on the east, west, and north. Duck Creek forms part of the western border between Bettendorf and Riverdale. U.S. Hwy 67 and the Iowa Chicago & Eastern Railroad line runs through Riverdale. ALCOA, Inc., with 135 acres under roof, is the largest Sheet and Plate rolling facility in the U.S. and is located between U.S. Hwy 67 and the Mississippi River and comprises a large amount of Riverdale's land area. Also located within the boundaries of Riverdale are Scott Community College, Pleasant Valley High School, Magellan Pipe Line's tank farm, which hold several million gallons of gasoline and diesel fuel, small commercial and light industry districts, five distinct residential areas and one 97 acre farm. Alcoa, Pleasant Valley High School and Scott Community College generate a transient population in excess of 7,500 people. A special flood hazard area is located along the Mississippi; however, the majority of the floodplain is located

south of U.S. Hwy 67(see DFIRM in Appendix III-2). There are a few residential homes within the Duck Creek Special Flood Hazard Area near where Duck Creek meets the Mississippi River. After the 1966 Mississippi River flood, Alcoa built a private levee around the plant. When the City of Bettendorf built their Mississippi River levee system, a combination of levy and flood wall were built on the western side of Duck Creek from U.S. Hwy 67 south to the Mississippi River. On the eastern side of Duck Creek, adjacent to the western end of Wisteria Lane, there is a short flood wall that offers some protection of Riverdale's Havens Acres subdivision. In addition, railroad tracks and a small berm south of Wisteria Lane also provide some protection of the Havens Acres subdivision. There are no known occurrences of land subsidence or sinkholes in Riverdale.

## Government Structure

The City of Riverdale has a mayor-council form of local government. The mayor is elected in two-year terms while the city council consisting of five elected officials is elected to four-year staggered terms. The city keeps a city attorney on retainer. City staff consists of two part time clerks and a part time maintenance man.

# City Departments

City Administration

# Fire Department

#### **Boards and Commissions**

• Board of Adjustment

• Zoning Commission

#### Critical Facilities

Critical facilities within the City of Riverdale include City Hall, fire department, local large businesses, community college campus, high school, and a fuel depot. There were 11 areas of vulnerable populations identified throughout the city as well. These can be seen on Map III-17. None of Riverdale's assets are located within the floodplain.

#### Hazard Priorities

The City of Riverdale chose to use individual hazard scores for the top priorities. Based on repetitive history, the City focused on hazards that are more likely to affect Riverdale than Scott County in general.

The City is located along the Mississippi River and Duck Creek. Although part of the City is protected by private levees the City recognizes the need for all residents to be prepared for an event. Water enters Havens Acres and floods land south of Havens Acres when the Mississippi River reaches flood stage. Flash flooding of the Pleasant Hills subdivisions occurs when rain exceeds a seven-year return frequency storm because of inadequate control of storm water runoff from Scott Community College. Flash floods occur in Havens Acres because of ice jams in Duck Creek and rain water runoff from greater Scott County. Roof, furnace and rolling mill fires at Alcoa make structural fire fighting, maintenance of fire protection equipment and continuing education of fire fighters a priority. Severe winter storms have immobilized the City for periods of time in excess of 14 hours. Power outages, usually due to severe weather, have lasted as long as three days. The City has experienced a tornado (1979) and understands the importance of advance storm warnings, and would like to add an additional siren in the Havens Acres subdivision which has no storm warning coverage. The City encourages residents to keep a "File

of Life" kit that contains all necessary medical information and can be life saving during a hazard event. The City of Riverdale's mitigation actions are listed in Chapter IV.

- 1. River Flood
- 2. Flash Flood
- 3. Structural Fire
- 4. Severe Winter Storm
- 5. Energy Failure
- 6. Tornado
- 7. Transportation of Hazardous Materials Incident

- 8. Railway Transportation Incident
- 9. Highway Transportation Incident
- 10. Fixed Hazardous Materials Incident
- 11. Thunderstorm & Lightning
- 12. Windstorm
- 13. Hailstorm
- 14. Pipeline Transportation Incident

# City of Walcott

#### Overview

- 2009 Census Population Estimate: 1,655
- 2010 Census Population: 1,629
- County Rank in Population: 6
- Land Area: 3.04 Square Miles
- Rank in Land Area: 7

# Local History

The City of Walcott was originally platted in 1854. The first passenger train route west of the Mississippi River started in 1855 and helped Walcott grow. William Walcott, who was a director of Chicago and Rock Island Railroad, donated \$500 in 1855 for the construction of a school building, with the stipulation that the fledgling town along the railroad tracks near Davenport be named after him. A petition for incorporation was signed and presented to Judge C.M. Waterman of the District Court at Davenport on June 5, 1894. At that time, the total population was 354 people. The election was held on July 7, 1894, and of the 81 votes cast, 54 were in favor of the incorporation. The result of the election was approved and filed by the District Court on July 14, 1894.

The original town was expanded in 1962 to include U.S. Hwy 6. Additional ground was annexed in 1973 to include the Interstate 80 interchange area and the French and Hecht Building, which currently houses FirstCo Inc. In the early 1990s, quadrants adjacent to and near the Interstate 80 interchanged were also annexed in. The annexation of the area near Interstate 80 has increased the area's valuation significantly. Many businesses, including the world's largest truckstop, Iowa 80 Truckstop, are located within city limits.

# Geography and Land Use

The City of Walcott is located along the western border of Scott County and extends into Muscatine County. The majority of Walcott is located within Scott County. Walcott is located in northwestern Blue Grass Township, southwestern Hickory Grove Township, and southeastern Cleona Township. Iowa Interstate railroad runs through the southern portion of the town, while I-80 runs through the northern portion of the city. Walcott has the world's largest truck stop, Iowa 80, at the I-80 interchange that serves 5,000 customers per day. The City of Walcott is primarily suburban agriculture and single-family residential in the southern portion of the city

with industrial uses along the Iowa Interstate Railroad and along Walcott Road and Main Street. There is two-family and multi-family residential within Walcott. The Interstate Highway Commercial District is located north of Wolf Road and spans across I-80 to the northern corporate boundary. A special flood hazard area is located along Mud Creek between Iowa Interstate Railroad and Walcott Road (see DFIRM in Appendix III-2). There are no levees located in Walcott and no known occurrences of land subsidence.

#### Government Structure

The City of Walcott has a mayor-council form of local government. The mayor and city council, consisting of five elected officials, are elected to four-year staggered terms. Walcott has a city attorney on retainer.

# City Departments

- Building Department
- Plan and Zoning Department
- City Clerks Department
- Police Department

- Fire Department
- Public Works Department
- Parks and Recreation Department

#### **Boards and Commissions**

- Economic Development Committee
- Plan and Zoning Commission
- Forever Green Tree Board

- Zoning Board of Adjustment
- Parks and Recreation Board

#### Critical Facilities

Critical facilities within Walcott include City Hall and fire station (same building), police station, water treatment facility, sewer treatment facility, wells, and post office. These can be seen on Map III-17. One critical facility and one other important building are located in the 1% floodplain.

#### Hazard Priorities

The City of Walcott elected to utilize their individual hazard scores to create the first priority hazards. The City identified hazards such as structural fire due to the large number of single family residences. The City recognizes a need to promote fire safety and the importance of smoke detectors. Hazards such as severe winter storm, thunderstorm & lightning, and windstorm are frequent occurrences within the City. Public education on the dangers of storms and locations of shelters are important to keep residents safe during those times. The City will also consider safe room construction where adequate facilities are not available largely due to the mobile home park in town. While the City of Walcott is not on the Mississippi River, flash flooding on Mud Creek does occur. There are several businesses and residential housing near the creek that is a risk of potential flooding. Additionally, the City is aware of the dangers of fixed hazardous material sites and will take steps to ensure first responders are aware of these locations and what types of hazardous materials exist. The City of Walcott's First Priority hazards are listed below and their mitigation actions are listed in Chapter IV.

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood

- 4. Windstorm
- 5. Transportation of Hazardous Materials

- 6. Highway Transportation Incident
- 7. Severe Winter Storm
- 8. Structural Fire
- 9. Cyber Terrorism

- 10. Tornado
- 11. Hailstorm
- 12. Railway Transportation Incident

# **Unincorporated Scott County**

#### Overview

• 2009 Census Population Estimate: 15,779

2010 Census Population: 15,130
County Rank in Population: 3
Land Area: 345.53 Square Miles

Rank in Land Area: 1

# Local History

Scott County was part of the Blackhawk Purchase in 1833, and was organized in December 1837, by an act of the territorial legislature of Wisconsin. Scott County was named after Gen. Winfield Scott who was the presiding officer at the signing of the peace treaty that ended the Blackhawk War. In February of 1838, the first election of county officers and the county seat took place, the City of Davenport won the election and became the official county seat. Iowa became a territory in July 1838 and a state on December 28, 1846.

# Geography and Land Use

Scott County is located in the eastern part of the State of Iowa. The unincorporated areas of the county are mainly located in the northern half of the county in the northwest and northeast sections. There are two larger unincorporated residential areas within the county: Park View, which is located just east of the City of Long Grove, and Pleasant Valley, which is located in between the Cities of Bettendorf and LeClaire. The Mississippi River is located along the east/southeast boarder, and the Wapsipinicon River is located along the northern border the county. Much of the Mississippi River boarder is occupied by incorporated cities, while much of the Wapsipinicon River is bordered by unincorporated area. Much of the unincorporated areas of Scott County are classified as agricultural/open space/not classified or park/recreation/ conservation areas, with small pockets of low-density residential. Refer to Map II-1 and Map III-16 for more information. The 1% special flood hazard areas of the county are located along the Mississippi River in the northeast corner of the county, along the Wapsipinicon River in the northern part of the county, and along larger streams within the county. A 0.2% special flood hazard area is found in the northeast corner of the county, north of the City of Princeton where the Mississippi and Wapsipinicon Rivers meet. Refer to Map III-12 for more information. Levees are located in the northeast corner of the county along the Mississippi and Wapsipinicon Rivers. There are approximately six dams located in the unincorporated areas of the county. Refer to Map III-3 for more information. There are no known occurrences of land subsidence in the unincorporated areas of Scott County. Areas identified as potential karst areas are located in the northwest corner of the county, along the northern border near U.S. Hwy 61, and near the City of Princeton. Refer to Map III-13 for more information.

#### Government Structure

Scott County government is organized by a Board of Supervisors. There are five county board members who are elected to 4-year staggered terms. Additionally, the County attorney, auditor, recorder, sheriff, and treasurer are elected positions for 4-year terms.

# County Departments

- Administrator
- Assessor
- Community Services
- Conservation
- County Engineer
- Facility and Support Services
- Health Department

- Human Resources
- Information Technology
- Juvenile Detention Center
- Planning and Development
- Secondary Roads

# **Boards and Commissions**

- Board of Adjustment
- Board of Health
- Civil Service Commission
- Conservation Board

- Emergency Management Commission
- Mental Health Board
- Veteran's Commission
- Zoning Commission

#### Critical Facilities

Critical facilities located within the unincorporated areas include government buildings, pipelines, and pipeline pumping stations. Vulnerable populations include a large senior care facility in Pleasant Valley and the residential areas of Park View and Pleasant Valley. None of Scott County's assets within Unincorporated Scott County are in the floodplain.

#### Hazard Priorities

Unincorporated Scott County chose to use the overall Scott County hazard rankings to formulate their first priority level hazards. The unincorporated county identified the first priority hazards such as fixed hazardous materials due to the location of 152 Tier II facilities within the county (most are within incorporated boundaries) and ensuring that all first responders are aware of the locations of hazardous materials helping to ensure the safety of residents. Flooding (flash and river) is included in the first priority due to the county's proximity to numerous creeks, Mississippi and Wapsipinicon Rivers. The County participates in the National Flood Insurance Program and will continue to do so. Hazards such as thunderstorm & lightning, windstorm, and severe winter storm occur frequently within the county and cause damage and results in additional costs to the county. Public education, promotion of NOAA weather radios and providing shelters to the community will help reduce the risk to the residents. The Unincorporated County's mitigation actions are listed in Chapter IV of this plan.

The top priority level hazards for Unincorporated Scott County are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm

- 5. River Flood
- 6. Transportation of Hazardous Materials Incident
- 7. Highway Transportation Incident
- 8. Severe Winter Storm

- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

## **Bettendorf Community School District**

#### **O**verview

Schools in District	Location	2010-2011 Enrollment
Bettendorf Community School District (PreK-12)		4,667
Bettendorf High School	Bettendorf	1,445
Bettendorf Middle School	Bettendorf	1,039
Grant Wood Elementary School	Bettendorf	332
Herbert Hoover Elementary School	Bettendorf	395
Mark Twain Elementary School	Bettendorf	301
Neil Armstrong Elementary School	Bettendorf	307
Paul Norton Elementary School	Bettendorf	444
Thomas Jefferson Elementary School	Bettendorf	154

#### Land Area

Approximately 9.87 square miles

# Geography

Bettendorf Community School district is located in the southern part of Scott County bordering the Mississippi River and serves the western half of the City of Bettendorf and the northeast area of the City of Davenport. See Map II-1 for district location.

#### Critical Facilities

Bettendorf Community School District's critical facilities include all eight schools in the district, as well as all school athletic facilities. None of the schools in the district are located in the special flood hazard areas of Scott County. See Bettendorf Community School District DFIRM for more details (Appendix III-2).

#### Hazard Priorities

The Bettendorf Community School District (BCSD) chose to use the Scott County hazard rankings to formulate their first priority level hazards. The top priority level hazards for Bettendorf Community School District are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood

- 6. Transportation of Hazardous Materials Incident
- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire

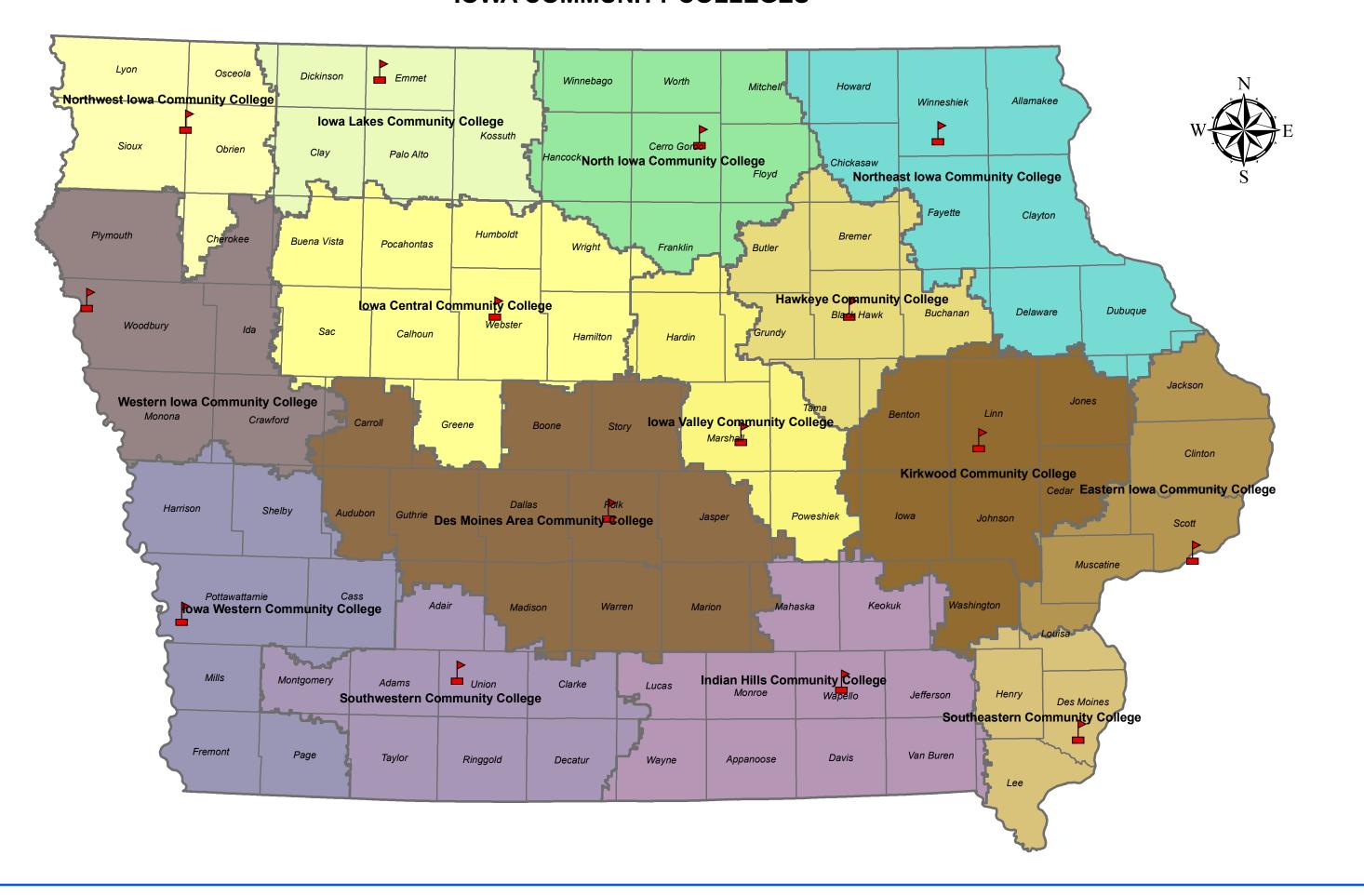
10. Tornado

12. Energy Failure

# 11. Hailstorm

The school districts are in a unique situation. The boundaries of the school districts do not line up perfectly with any of the cities within Scott County. That is why the school districts agreed to use the county-wide hazard priorities. All of the county-wide hazards do impact the BCSD's transporting students, managing of buildings, and conducting business. Bad weather including floods (both flash and river); thunderstorm and lightning; windstorms, severe winter storm, and hailstorms impact the busing of students. Buses are also impacted by Highway Transportation Incidents. Schools do house chemicals for maintaining buildings and equipment and for science labs so both Fixed Hazardous Materials and Transportation of Hazardous Materials Incidents could impact the BCSD. Structural fires are plausible within the BCSD and could cause substantial damage to life and property while also having a long term impact on the education of the students within the BCSD. One of the largest concerns for the BCSD in terms of mitigation actions is the evaluation and planning for tornado safe rooms within the school district buildings. The Hazard Mitigation Plans consider the students and faculty within school buildings to be vulnerable populations due to the concentration of youth within the buildings. The BCSD wants to evaluate the need for tornado safe rooms and proceed with construction when funding becomes available. Energy failure is also a major issue within the BCSD. School cannot be in session when there is no power in a building. Having back-up generation at each school would ensure that classes can continue with little disturbance. Finally, having the knowledge of impending hazards is important. By having NOAA weather radios at each school and sports field, the BCSD can act before a hazard impacts the area and minimize the threat to life and property. The Bettendorf CSD's mitigation actions are listed in full in Chapter IV.

# **IOWA COMMUNITY COLLEGES**



# Eastern Iowa Community College District (EICC) (Scott County Campuses) Overview

Post Processing Street Comments	T	2011 Enrollment
Buildings in Scott County	Location	(Spring)
EICC		5,099*
Scott Community College - Main Campus	Riverdale	2,839
Kahl Educational Center	Davenport	785
Blong Technology Center	Davenport	239
Scott Community College - Other Sites	Throughout County	605
Scott Community College - Sites at High Schools <sub>1</sub>	Throughout County	631

<sup>\*</sup> Total enrollment is for Scott County buildings only. EICC total enrollment for all campus in district is 8,846.

#### Land Area

EICC district campuses are located throughout Scott County.

# Geography

EICC district covers Clinton, Jackson, Muscatine, and Scott Counties as well as parts of Cedar and Louisa Counties. Campuses are located in Clinton, Muscatine, and Scott Counties. However, for the purposes of this plan, only Scott County will be discussed. Reference Map III-20 for EICC District location in more detail.

#### Critical Facilities

EICC's critical facilities include all buildings and facilities in the district. EICC's buildings are located throughout the entire county. No buildings are located in the special flood hazard areas. See Map III-17 for more details.

#### Hazard Priorities

The EICC chose to use the Scott County hazard rankings to formulate their first priority level hazards. The top priority level hazards for EICC are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

The school districts are in a unique situation. The boundaries of the school districts do not line up perfectly with any of the cities within Scott County. The Eastern Iowa Community College District (EICCD), in fact, encompasses the entire County and beyond. That is why the EICCD

Locations include: Assumption HS, Bettendorf HS, Davenport Central HS, Davenport North HS, Davenport West HS, North Scott HS, and Pleasant Valley HS.

agreed to use the county-wide hazard priorities. All of the county-wide hazards do impact the EICCD's commuting students, building maintenance, and business. Hazardous weather including floods (both flash and river); thunderstorm and lightning; windstorms, severe winter storm, and hailstorms impact the safety of students, faculty and staff. The EICCD does have a Commercial Drivers License and Trucking School and that program in particular could be affected by a Highway Transportation Incident. Schools do house chemicals for facilities maintenance and equipment and for science labs, so both Fixed Hazardous Materials and Transportation of Hazardous Materials Incidents could impact the EICCD. Structural fires are plausible within the EICCD and could cause substantial damage to life and property while also having a long term impact on the education of the students within the EICCD. One of the largest concerns for the EICCD in terms of mitigation actions is the evaluation and planning for tornado safe rooms within the school district buildings. This Plan considers the students and faculty within school buildings to be vulnerable populations due to the concentration of youth within the buildings. The EICCD wants to evaluate the need for tornado safe rooms within EICCD owned and operated buildings and proceed with construction when funding becomes available. Energy failure is also a major issue within the EICCD. School cannot be in session when there is no power in a building. Having back-up generation at each school would ensure that classes can continue with little disturbance. Finally, having the knowledge of impending hazards is crucial to being proactive. By having NOAA weather radios at each school and sports field, the EICCD can act before a hazard impacts the area and minimize the threat to life and property. The EICCD's mitigation actions are listed in full in Chapter IV. The mitigation actions listed in Chapter

# North Scott Community School District

#### Overview

Schools in District	Location	2010-2011 Enrollment
North Scott Community School District (K-12)		3,163
North Scott Senior High School	Eldridge	1,022
North Scott Junior High School*	Eldridge	551
Alan Shepard Elementary School	Long Grove	342
Edward White Elementary School*	Eldridge	440
John Glenn Elementary School	Donahue	269
Neil Armstrong Elementary School	Eldridge	317
Virgil Grissom Elementary School	Princeton	222

<sup>\* 62</sup> students from Edward White Elementary School are housed at North Scott Jr. High School and total enrollment numbers reflect that.

#### Land Area

Approximately 216.28 square miles

# Geography

North Scott Community School district is located in the northern half of Scott County and serves the Cities of Dixon, Donahue, Eldridge, Long Grove, Maysville, McCausland, and Princeton. See Map II-1 for district location.

#### Critical Facilities

North Scott Community School District's critical facilities include all seven schools in the district, as well as all school athletic facilities. None of the schools in the district are located in the special flood hazard areas of Scott County. See North Scott Community School District DFIRM for more details (Appendix III-2).

# Hazard Priorities

The North Scott Community School District chose to use the Scott County hazard rankings to formulate their first priority level hazards. The top priority level hazards for North Scott Community School District are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

The school districts are in a unique situation. The boundaries of the school districts do not line up perfectly with any of the cities within Scott County. The North Scott Community School District (NSCSD) covers a huge expanse of Scott County that serves northern Davenport and Bettendorf, Dixon, Donahue, Eldridge, Long Grove, Maysville, McCausland, and Princeton as well as all of the unincorporated Scott County in between these cities. That is why the school district agreed to use the county-wide hazard priorities. All of the county-wide hazards do impact the NSCSD's transportation of students, building maintenance, and business. Hazardous weather including floods (both flash and river); thunderstorm and lightning; windstorms, severe winter storm, and hailstorms impact the busing and safety of students. Buses are also impacted by Highway Transportation Incidents. Schools do house chemicals for facilities maintenance and equipment and for science labs, so both Fixed Hazardous Materials and Transportation of Hazardous Materials Incidents could impact the NSCSD. Structural fires are plausible within the NSCSD and could cause substantial damage to life and property while also having a long term impact on the education of the students within the NSCSD. One of the largest concerns for the NSCSD in terms of mitigation actions is the evaluation and planning for tornado safe rooms within the school district buildings. This Plan considers the students and faculty within school buildings to be vulnerable populations due to the concentration of youth within the buildings. The NSCSD wants to evaluate the need for tornado safe rooms within NSCSD owned and operated buildings and proceed with construction when funding becomes available. Energy failure is also a major issue within the NSCSD. School cannot be in session when there is no power in a building. Having back-up generation at each school would ensure that classes can continue with little disturbance. Finally, having the knowledge of impending hazards is crucial to being proactive. By having NOAA weather radios at each school and sports field, the NSCSD can act before a hazard impacts the area and minimize the threat to life and property. The North Scott Community School District's mitigation actions are listed in full in Chapter IV.

# Pleasant Valley Community School District

#### **O**verview

Schools in District	Location	2010-2011 Enrollment
Pleasant Valley Community School District (K-12)		3,822
Pleasant Valley High School	Riverdale	1,184
Pleasant Valley Junior High School	LeClaire	612
Bridgeview Elementary School	LeClaire	339
Cody Elementary School	LeClaire	362
Hopewell Elementary School <sub>1</sub>	Bettendorf	0
Pleasant View Elementary School	Bettendorf	687
Riverdale Heights Elementary School	Bettendorf	638

New elementary school in district opening fall 2011.

#### Land Area

Approximately 44.96 square miles

# **Geography**

Pleasant Valley Community School District is located in the southeastern section of Scott County and serves the Cities of Bettendorf (eastern half), LeClaire, Panorama Park, and Riverdale. See Map II-1 for district location.

#### Critical Facilities

Pleasant Valley Community School District's critical facilities include all seven schools in the district, as well as all school athletic facilities. None of the schools in the district are located in the special flood hazard areas of Scott County. See Pleasant Valley Community School District DFIRM for more details (Appendix III-2).

# Hazard Priorities

The Pleasant Valley Community School District chose to use the Scott County hazard rankings to formulate their first priority level hazards. The top priority level hazards for Pleasant Valley Community School District are:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

The school districts are in a unique situation. The boundaries of the school districts do not line up perfectly with any of the cities within Scott County. The Pleasant Valley Community School District (PVCSD) covers an area that serves most of Bettendorf, as well as Riverdale, Panorama

Park, LeClaire and all of the unincorporated Scott County in between these cities. That is why the school district agreed to use the county-wide hazard priorities. All of the county-wide hazards do impact the PVCSD's transportation of students, building maintenance, and business. Hazardous weather including floods (both flash and river); thunderstorm and lightning; windstorms, severe winter storm, and hailstorms impact the busing and safety of students. Buses are also impacted by Highway Transportation Incidents. Schools do house chemicals for facilities maintenance and equipment and for science labs, so both Fixed Hazardous Materials and Transportation of Hazardous Materials Incidents could impact the PVCSD. Structural fires are plausible within the PVCSD and could cause substantial damage to life and property while also having a long term impact on the education of the students within the PVCSD. One of the largest concerns for the PVCSD in terms of mitigation actions is the evaluation and planning for tornado safe rooms within the school district buildings. This Plan considers the students and faculty within school buildings to be vulnerable populations due to the concentration of youth within the buildings. The PVCSD wants to evaluate the need for tornado safe rooms within PVCSD owned and operated buildings and proceed with construction when funding becomes available. Energy failure is also a major issue within the PVCSD. School cannot be in session when there is no power in a building. Having back-up generation at each school would ensure that classes can continue with little disturbance. Finally, having the knowledge of impending hazards is crucial to being proactive. By having NOAA weather radios at each school and sports field, the PVCSD can act before a hazard impacts the area and minimize the threat to life and property. The Pleasant Valley Community School District's mitigation actions are listed in full in Chapter IV.

#### IV.MITIGATION STRATEGY

This section presents the mitigation strategy developed by the Hazard Mitigation Planning Committee based on the risk assessment. The mitigation strategy was developed through a collaborative group process. The FEMA *State and Local Mitigation Planning: How-To Guide* from April 2003 states that goals are general guidelines that explain what a jurisdiction wants to achieve. They are usually long-term, broad, policy-type statements. Mitigation actions are specific actions that help achieve goals and objectives.

General goals were selected to guide jurisdictions in their efforts to mitigate disaster effects, and to create mitigation actions that each jurisdiction can put in place to reduce vulnerability to hazards and their associated losses.

# **Local Hazard Mitigation Goals**

Goals are general guidelines that explain what a jurisdiction wants to achieve. They are broad policy-type statements and are long term. The Planning Committee developed goals to provide direction for reducing hazard-related losses in Scott County. These goals were based upon the results of the risk assessment and a review of mitigation goals from other state and local plans, specifically, the Iowa State Mitigation Plan, 2007 and 2010; the City of Davenport Iowa Mitigation Plan, 2007; and the Muscatine County Multi-Jurisdictional Hazard Mitigation Plan, 2010. Through a brainstorming session, the Planning Committee came to a consensus on five main goals. The City of Davenport decided to adopt these goals in lieu of the goals set forth in the Pre-Disaster Mitigation Plan 2007. The goals are listed in priority order, as agreed during Planning Committee meetings.

- Goal 1: Protect human life and public health from the effects of hazards
- Goal 2: Minimize vulnerability of property within Scott County from the effects of hazards
- Goal 3: Minimize damage to critical facilities, infrastructure, and other community assets from the effects of hazards
- Goal 4: Improve public communication, education, and awareness of hazards and their risks in Scott County
- Goal 5: Strengthen intergovernmental communication among jurisdictions within Scott County

#### Hazard Mitigation Objectives

Objectives are defined as strategies or implementation steps to attain the state goals. The Planning Committee developed objectives based on six broad categories used in FEMA guidance documents to describe a range of mitigation measures. The City of Davenport elected to change its objectives to coincide with the rest of the Scott County Multijurisdictional Hazard Mitigation Plan. This provided objectives that would be consistent throughout each jurisdiction regardless of size, population, or available resources. The Planning Committee reviewed potential objectives and selected the following objectives, which are listed in priority order as agreed upon at the Planning Committee meetings.

- Objective 1: Develop and implement government administrative or regulatory actions or processes to influence the way land and buildings are developed and built (Preventative Measure)
- Objective 2: Protect buildings and structures from hazards by modifying or removing them from hazard areas (Property Protection)
- Objective 3: Inform and educate citizens, elected officials, and property owners about hazards and ways of mitigating (Public Education and Awareness)
- Objective 4: Preserve or restore functions of natural systems while minimizing hazard losses (Natural Resource Protections)
- Objective 5: Construct and maintain structural projects to reduce or redirect the impact of hazards away from at-risk populations and facilities (Structural Projects)
- Objective 6: Protect people and property during and after a disaster event in order to minimize its impact and preserve community health and safety (Emergency Services)

# Identification and Analysis of Mitigation Actions

FEMA guidance for local hazard mitigation planning requires examining a comprehensive range of mitigation actions and projects for each hazard. Six broad categories are used in FEMA guidance documents to describe a range of mitigation measures.

# **Range of Mitigation Measures**

- Preventative Measures (PM). Government administrative or regulatory actions or
  processes are developed and implemented that influence the way land and buildings are
  developed and built. These actions also include public activities to reduce hazard losses.
  Preventive measures are used to keep problems from getting started or getting worse.
  Mitigation measures that fall into this group include planning and zoning, building codes,
  conducting technical studies, inspection, enforcement, implementation, hazard analysis
  and risk assessment, security, capital improvement programs, open space preservation,
  and storm water management regulations. Community participation in the National
  Flood Insurance Program (NFIP) also protects both individuals and the community as a
  whole from devastating losses.
- 2. Property Protection (PP). These are measures that involve the modification of existing buildings or structures to protect them from a hazard(s), or removal from the hazard area. They are implemented in order to remove people, property, and businesses permanently out of unsafe areas where, in terms of wise disaster planning, they should not have been in the first place. Property protection measures include acquisition, elevation, relocation, and structural retrofits.
- 3. Public Education and Awareness (PE). These measures help to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them. These measures include outreach projects, real estate disclosure, hazard information centers, and school age and adult education programs.

- 4. Natural Resource Protections (NR). These are actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor protections and restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- 5. Emergency Services (ES). These actions protect people and property during and after a disaster event in order to minimize its impact and preserve the community's health and safety. Emergency services include warning systems, monitoring systems, response and recovery planning, emergency response services, evacuations, protection of critical facilities, acquisition of equipment to facilitate the delivery of these services, and training for responders in emergency situation.
- 6. Structural Projects (SP). These projects involve the construction and maintenance of structures to reduce or redirect the impact of a hazard away from at-risk populations and facilities. Such structures include, but are not limited to, dams, levees, floodwalls, seawalls, retaining walls, and safe rooms.

As previously determined by the Planning Committee, mitigation actions for this initial multijurisdictional mitigation plan would focus on hazards identified as a first priority. Please refer to Chapter III for the hazard prioritization process. Those first priority hazards vary by jurisdiction and are listed below for each jurisdiction:

#### **Unincorporated Scott County:**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

#### **City of Bettendorf:**

- 1. Structural Fire
- 2. Flash Flood
- 3. Thunderstorm & Lightning
- 4. Hailstorm
- 5. Energy Failure
- 6. Severe Winter Storm
- 7. River Flooding
- 8. Tornado
- 9. Windstorm
- 10. Levee Failure

- 11. Structural Failure
- 12. Waterway Incident
- 13. Fixed Hazardous Materials Incident
- 14. Transportation of Hazardous Materials Incident
- 15. Highway Transportation Incident
- 16. Railway Transportation Incident
- 17. Pipeline Transportation Incident

# **City of Blue Grass:**

- 1. Communications Failure
- 2. Energy Failure
- 3. Thunderstorm & Lightning
- 4. Tornado
- 5. Windstorm
- 6. Hailstorm
- 7. Flash Flood
- 8. Severe Winter Storm

- 9. Structural Fire
- 10. Grass and Wildland Fire
- 11. Drought
- 12. Highway Transportation Incident
- 13. Transportation of Hazardous Materials Incident
- 14. Fixed Hazardous Materials Incident

# City of Buffalo:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# **City of Davenport:**

- 1. Highway Transportation Incident
- 2. Transportation of Hazardous Materials
- 3. Transportation of Radiological Materials
- 4. Flash Flood
- 5. Severe Winter Storm
- 6. Communications Failure

- 7. Cyber Terrorism
- 8. Thunderstorm & Lightning
- 9. Windstorm
- 10. Hailstorm
- 11. Railway Transportation Incident
- 12. River Flood
- 13. Air Transportation Incident
- 14. Fixed Hazardous Materials Incident

#### **City of Dixon:**

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

#### **City of Donahue:**

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm

- 5. River Flood
- 6. Transportation of Hazardous Materials Incident
- 7. Highway Transportation Incident
- 8. Severe Winter Storm

# City of Eldridge:

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. Transportation of Hazardous Materials Incident
- 6. Severe Winter Storm

# City of LeClaire:

- 1. Structural Fire
- 2. Windstorm
- 3. Highway Transportation Incident
- 4. Thunderstorm & Lightning
- 5. Tornado
- 6. Railway Transportation Incident

# **City of Long Grove:**

- 1. Energy Failure
- 2. Severe Winter Storm
- 3. Tornado
- 4. Windstorm
- 5. Pipeline Transportation Incident
- 6. Thunderstorm & Lightning
- 7. Hailstorm
- 8. Drought

#### City of Maysville:

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure
- 7. Energy Failure
- 8. Highway Transportation Incident
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Drought
- 7. Severe Winter Storm
- 8. Conventional Terrorism
- 9. Energy Failure
- 10. River Flooding
- 11. Cyber Terrorism
- 12. Waterway Incident
- 9. Earthquake
- 10. Structural Fire
- 11. Highway Transportation Incident
- 12. Structural Failure
- 13. Fixed Hazardous Materials
- 14. Transportation of Hazardous Materials Incident
- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# City of McCausland:

- 1. Thunderstorm & Lighting
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flood
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# **City of New Liberty:**

- 1. Tornado
- 2. Severe Winter Storm
- 3. Energy Failure
- 4. Thunderstorm & Lightning
- 5. Structural Fire
- 6. Windstorm

- 7. Transportation of Hazardous Materials Incident
- 8. Highway Transportation Incident
- 9. Hailstorm
- 10. Drought
- 11. Extreme Heat
- 12. Grass or Wildland Fire

# City of Panorama Park:

- 1. Tornado
- 2. Severe Winter Storm
- 3. Energy Failure
- 4. Thunderstorm & Lightning
- 5. Flash Flood
- 6. Structural Fire

- 7. Windstorm
- 8. Transportation of Hazardous Materials Incident
- 9. Railway Transportation Incident
- 10. Highway Transportation Incident

# **City of Princeton:**

- 1. Tornado
- 2. Structural Fire
- 3. River Flooding
- 4. Highway Transportation Incident
- 5. Waterway Incident
- 6. Flash Flood
- 7. Grass or Wildland Fire
- 8. Drought

- 9. Transportation Hazardous Materials Incident
- 10. Extreme Heat
- 11. Levee Failure
- 12. Pipeline Transportation Incident
- 13. Energy Failure
- 14. Severe Winter Storm

# City of Riverdale:

- 1. River Flood
- 2. Flash Flood
- 3. Structural Fire
- 4. Severe Winter Storm
- 5. Energy Failure

- 6. Tornado
- 7. Transportation of Hazardous Materials Incident
- 8. Railway Transportation Incident
- 9. Highway Transportation Incident

- 10. Fixed Hazardous Materials Incident
- 11. Thunderstorm & Lightning
- 12. Windstorm

- 13. Hailstorm
- 14. Pipeline Transportation Incident

# **City of Walcott:**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. Transportation of Hazardous Materials
- 6. Highway Transportation Incident

- 7. Severe Winter Storm
- 8. Structural Fire
- 9. Cyber Terrorism
- 10. Tornado
- 11. Hailstorm
- 12. Railway Transportation Incident

# **Bettendorf Community School District:**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

#### **Eastern Iowa Community College District (Scott County Campuses):**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# **Pleasant Valley Community School District:**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

# **North Scott Community School District:**

- 1. Thunderstorm & Lightning
- 2. Fixed Hazardous Materials Incident
- 3. Flash Flood
- 4. Windstorm
- 5. River Flooding
- 6. Transportation of Hazardous Materials Incident

- 7. Highway Transportation Incident
- 8. Severe Winter Storm
- 9. Structural Fire
- 10. Tornado
- 11. Hailstorm
- 12. Energy Failure

The identified hazards and their ranking may differ somewhat for individual jurisdictions based on their unique conditions within Scott County. However all jurisdictions include most of these county-wide hazards, and the overall prioritization was agreed upon by the Planning Committee.

# **Evaluation of Alternative Mitigation Actions**

As an initial effort, the Planning Committee brainstormed possible mitigation actions to address the first priority hazards. Next, the actions were assigned to appropriate goals. The actions were then sorted by the six categories within the comprehensive range of mitigation actions to identify whether other actions might be considered. The Planning Committee then decided to utilize the six categories as objectives. The original action concepts were edited into consistent language of actionable items.

Actions were evaluated using the STAPLEE method recommended by FEMA guidance for local hazard mitigation planning. This method provides a systematic way of evaluating the opportunities and constraints of implementing a particular mitigation action in the local jurisdiction. STAPLEE is an acronym for evaluating each action in terms of Social, Technical, Administrative, Political, Legal, Economic and Environmental (STAPLEE) factors for implementation. A more detailed explanation of the STAPLEE evaluation method is included as Appendix IV-1. At this point some mitigation actions were removed from some of the jurisdictions' mitigation strategies list. Eliminated actions are not included in this plan. Reasons for elimination include being logistically infeasible, having a negative cost-benefit ratio, fiscally infeasible, or politically not supported. The original list of all considered actions are not included in this plan; however the lists are available at each jurisdiction or from Bi-State Regional Commission.

The City of Davenport reviewed the actions identified in the Pre-Disaster Mitigation Plan 2007 and consolidated actions into a comprehensive list. Changes to the actions are documented in Appendix IV-2.

Because of the extensive detail of the STAPLEE analysis, that information is included as Appendix IV-3. This appendix contains the list of all mitigation actions selected: the first priority hazard or hazards addressed, the category of mitigation measure, information on funding, the responsible party of implementation/administration, and an approximate timeframe for completion of the mitigation action. The comments in the STAPLEE appendix indicate whether the action is recommended as a priority action and whether an action should be revisited during the update of future plans. Information also includes whether the action applies to existing or new community assets and a brief benefit/cost review.

# Multi-Jurisdiction Mitigation Actions

Each participating jurisdiction identified at least one of its own actions to carry out. Each jurisdiction completed the STAPLEE evaluation method for each mitigation action their jurisdiction intended to carry out and the STAPLEE evaluations are included as Appendix IV-4. The individual jurisdiction priority actions are summarized in Table IV-1. The actions are listed in priority order for each jurisdiction. Some jurisdictions elected to include mitigation actions for hazards not included on their first priority level hazards. These mitigation actions are considered low priority unless otherwise noted by a jurisdiction. FEMA Region VII has stated that there is no obligation to carry out the mitigation actions listed below due to the fiscal, economic, political, and logistical limitations jurisdictions may face. Mitigation actions are not required to be completed within the stated timelines in the STAPLEE evaluations. Mitigations listed below will be re-evaluated during the Plan Update to determine if they are still relevant to each jurisdiction.

Table IV-1 Multi-Jurisdictional Priority Actions

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed		
	Bettendorf						
1.1	1	1,6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident		
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood		
1.3	1	3	Encourage use of NOAA weather radios	PE	All Hazards		
1.4	1	6	Identify potential treatment locations for biological, radiological and chemical exposures	ES	Biological Terrorism, Radiological Terrorism, Fixed Radiological Incident, Transportation of Radiological Materials Incident, Chemical Terrorism		
1.6	1, 2	1	Encourage use of certain routes for transportation of hazardous materials	PM	Transportation of Hazardous Materials		
1.7	1, 2	2, 6	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident		
1.8	1, 4	3, 2, 6	Encourage those dependent on oxygen extractors to install back-up generators	PE, PP, ES	Energy Failure		
1.9	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease		
2.1	2	1	Create additional railroad right-of-way separation requirements from residential areas.	PM	Railway Transportation Incident		
2.2	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood		
2.4	2	1	Require utility companies to mark approximate locations of pipeline utilities	PM	Pipeline Transportation Incident		
2.5	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire		
2.7	2, 3	1	Ensure hazardous materials sites are monitored.	PM	Fixed Hazardous Materials Incident		

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
2.8	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards
2.9	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood
3.3	3	1, 6	Analyze high traffic accident locations for possible solutions	PM, SP	Highway Transportation Incident
3.4	3	1, 6	Conduct safety inspections of levees and maintain protection certification through US Army Corps of Engineers	PM, SP	Levee Failure
3.7	3	6	Ensure all critical facilities have back-up generators	ES	Energy Failure
4.2	4	3	Educate the public on the dangers of lightning	PE	Thunderstorm & Lightning
4.3	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood
4.4	4	3	Utilize ITS signs to communicate safe driving messages and to alert drives to hazardous conditions	PE	Highway Transportation Incident
4.5	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure
4.6	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm
4.7	4	3	Educate the public on maintaining a fire safe home or business	PE	Structural Fire
4.8	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.9	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.10	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm
4.11	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire
4.12	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire
4.13	4	3	Educate the public on what river flood levels on the Mississippi and Wapsipinicon actually mean	PE	River Flood

IV - Mitigation Strategy

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.14	4	3	Educate the public on sandbagging techniques and other flood prevention technologies	PE	River Flood
4.15	4	3	Educate the public on the dangers of flash flooding	PE	Flash Flood
4.16	4	3	Promote state and federal remediation programs for windstorm and animal/crop/plant disease incidents	PE	Windstorm, Animal/Plant/Crop Disease
4.17	4	3, 6	Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release.	PE, ES	Fixed Hazardous Materials Incident
4.18	4	3, 6	Educate the public on river flooding and what they need to do when an event occurs	PE, ES	River Flood
4.19	4	3, 6	Educate the public on how to minimize damage their residences and businesses	PE, ES	River Flood
4.20	4	3, 6	Consider the use social media such as Twitter, Facebook or mass texting systems to notify the public on hazardous events	PE, ES	All Hazards
4.21	4	6	Create and/or regularly review procedures for chemical, biological, radiological, enemy attack or flooding incidents	ES	Biological Terrorism, Radiological Terrorism, Fixed Radiological Incident, Transportation of Radiological Materials Incident, Chemical Terrorism, Enemy Attack, River Flood
4.22	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood
5.1	5	1	Make sure hazardous materials sites keep their inventory of materials current.	PM	Fixed Hazardous Materials Incident
5.2	5	1	Have regular training for water rescue and updated equipment	PM	Waterway Incident
5.3	5	1	Maintain mutual aid response policy established by local governments/agencies	PM	All Hazards
5.4	5	1, 6	Ensure First Responders have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.5	5	1, 6	Encourage First Responders to share resources and equipment	PM, ES	All Hazards

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
5.7	5	6	Clear driveways of first responders in order to ensure quicker response times	ES	Severe Winter Storm
1.5	1	6	Provide treatment locations for pandemic disease and fixed radiological incident	ES	Human Disease Pandemic, Fixed Radiological Incident
2.3	2	1	Maintain controlled burn measures and procedures implemented by the Fire department	PM	Grass and Wildland Fire
2.6	2	3	Educate public about plant disease, infestation and plant removal techniques	PE	Animal/Plant/Crop Disease
3.1	3	1	Encourage the planting of more drought resistant landscape	PM	Drought
3.2	3	1, 3	Educate the public on water conservation measures such as low flow plumbing devises or reuse of grey water for irrigation	PE, PM	Drought
3.5	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism
3.6	3	3	Assist in promotion of vaccination programs with local, state and federal officials	ES	Human Disease Pandemic, Human Disease Incident
4.1	4	1, 3	Implement wildfire prevention program	PM, PE	Grass and Wildland Fire
5.6	5	1, 6	Maintain communication and training with military and law enforcement efforts in case of enemy attack	PM, ES	Enemy Attack, Conventional Terrorism
			Blue Grass		
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident
1.2	1	3	Promote use of NOAA weather radios	PE	All Hazards
1.3	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
2.1	2	1	Join the National Flood Insurance Program	PM	River Flood, Flash Flood
2.2	2, 3	1	Ensure hazardous materials sites are monitored.	PM	Fixed Hazardous Materials Incident
2.3	2, 3	5	Ensure hydrants are maintained and well identified	SP	Structural Fire

IV - Mitigation Strategy

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
3.1	3	5	Construct, retrofit or maintain drainage systems to provide adequate and proper functioning systems to include sewage systems and retention/detention ponds.	SP	River Flood, Levee Failure, Flash Flood, Dam Failure, Drought, Human Disease Incident, Structural Failure, Sinkholes & Land Subsidence
4.1	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure
4.2	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.3	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire
4.4	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire
4.5	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident
4.6	4	3, 6	Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release.	PE, ES	Fixed Hazardous Materials Incident
4.7	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards
5.1	5	1	Make sure hazardous materials sites keep their inventory of materials current.	PM	Fixed Hazardous Materials Incident
5.2	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.3	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards
	Buffalo				
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.2	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood
3.1	3	5	Replace or retrofit bridges and culverts to meet capacity requirements	SP	River Flood, Levee Failure, Flash Flood, Dam Failure, Transportation of Hazardous Materials Incident, Fixed Hazardous Materials Incident, Structural Failure, Highway Transportation Incident, Waterway Incident
3.2	3	5	Construct, retrofit or maintain levees, dams, floodwalls, culverts and floodgates to ensure adequate capacity and protection levels for property and critical facilities	SP	River Flood, Flash Flood, Levee Failure, Dam Failure, Structural Failure
4.1	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.2	4	3, 6	Use social media such as Twitter, Facebook or mass texting systems to notify the public on hazardous events	PE, ES	All Hazards
			Davenport		
1.1	1	6	Fund and expand Duck Creek early warning system	ES	River Flood, Flash Flood
1.2	1, 2	2, 3	Investigate funding sources and programs for commercial and industrial hazard mitigation (floodproofing)	PP, PE	River Flood, Flash Flood
1.3	1, 2, 4	1, 3, 4	Continue NFIP and CRS compliance	PM, PE, NR	River Flood
1.4	1, 3	5	Improve Garden Addition levee system	SP	River Flood, Levee Failure
1.5	1, 3	5	Complete Iowa American flood control project	SP	River Flood
1.6	1, 4	1, 6	Work with social agencies to identify at risk/vulnerable populations	PM, ES	All Hazards
1.7	1, 4	2, 3	Review mitigation options and hazard plans with vulnerable businesses	PP, PE	All Hazards

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
1.8	1, 4	6, 3	Enhance communication regarding emergency road closures	ES, PE	River Flood, Flash Flood, Windstorm, Severe Winter Storm, Highway Transportation Incident, Structural Fire, Fixed Hazardous Materials Incident, Transportation of Hazardous Materials Incident
1.9	1, 4	6, 3	Enhance communication regarding weather/hazard emergencies	ES, PE	All Hazards
1.10	1, 5	3, 6	Coordinate with other agencies regarding hazard threats and response assistance	PE, ES	All Hazards
1.11	1, 5	6	Continue HAZMAT program	ES	Fixed Hazardous Materials Incident, Transportation of Hazardous Materials Incident
2.1	2	1, 2, 3	Review, enhance and enforce all City codes with respect to all hazards	PM, PP, PE	All Hazards
2.2	2	1, 3, 4	Enhance GIS use in identifying property subject to hazards	PM, PE, NR	All Hazards
2.3	2	1, 5	Continue/expand City Flood Acquisition Program	PM, SP	River Flood
2.4	2,3	1, 2	Revise City codes regarding enhanced floodplain and stormwater regulations	PM, PP	River Flood, Flash Flood
2.5	2, 4	1, 5	Review transportation routes for conflicts, hazard and warning notifications potentials	PM, SP	All Hazards
3.1	3	1, 4	Pursue USACE funding for technical studies (creeks & rivers)	PM, NR	River Flood, Flash Flood
3.2	3	4, 5	Continue/enhance creek inspection and stabilization programs	NR, SP	River Flood, Flash Flood
3.4	3, 5	3, 4	Partner with other agencies on stormwater and flood mitigation demonstration projects	PE, NR	River Flood, Flash Flood
3.5	3, 5	6	Scenario plan/practice for disaster/hazard response	ES	All Hazards
4.1	4	3	Review/enhance public education with respect to all hazards	PE	All Hazards

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed		
4.2	4	6, 3	Review/update process for notifying of warnings, shelters and recovery assistance	ES, PE	All Hazards		
4.3	4, 5	3, 6	Enhance emergency communications to critical facilities	PE, ES	All Hazards		
5.1	5	6	Review/update and coordinate emergency response plans	ES	All Hazards		
5.2	5	6	Review/enhance redundant/back-up communication options	ES	All Hazards		
5.3	5	6	Improve damage assessment process	ES	All Hazards		
3.3	3	6	Partner with MidAmerican Energy regarding prioritizing street clearing for power restoration	ES	Energy Failure		
Dixon							
1.1	1	3	Promote use of NOAA weather radios	PE	All Hazards		
1.2	1, 3	1	Pre-treat roads before severe winter storms	PM	Severe Winter Storm		
2.1	2, 3	5	Ensure hydrants are maintained and well identified	SP	Structural Fire		
4.1	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado		
4.2	4	3	Develop a check-on-neighbor program for vulnerable populations	PE	All Hazards		
Donahue							
3.1	3	5	Construct, retrofit or maintain drainage systems to provide adequate and proper functioning systems to include sewage systems and retention/detention ponds.	SP	River Flood, Levee Failure, Flash Flood, Dam Failure, Drought, Human Disease Incident, Structural Failure, Sinkholes & Land Subsidence		
5.1	5	6, 1	Recommend a policy change to assign an on call secondary roads plow to ambulance and fire stations to ensure safety of responders during extreme weather hazards	ES, PM	Severe Winter Storm		
Eldridge							
1.1	1	1	Evaluate need for traffic re-routing plan and create plan if needed	PM	Fixed Hazardous Materials Incident		
1.2	1	2	Provide back-up power for essential services such as water plant, water wells, sewer lift stations and emergency shelter.	PP	Thunderstorm & Lightening, Windstorm, Severe Winter Storm, Energy Failure, Tornado		

IV - Mitigation Strategy

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
1.3	1, 2	1	Enforce building codes for prevailing winds	PM	Windstorm, Structural Fire
1.4	1, 2	1	Evaluate traffic hazards in likely areas	PM	Transportation of Hazardous Materials Incident, Highway Transportation Incident
2.1	2	1	Enforce floodplain regulations	PM	Flash Flood; River Flood
2.2	2	1	Enforce property maintenance and building codes	PM	Structural Fire
2.3	2	5	Evaluate storm sewer system and detention ponds	SP	Flash Flood
3.1	3	1	Have water conservation plan in place	PM	Drought
3.2	3	5	Maintain water system (adequate well, storage and treatment capacity)	SP	Drought
4.1	4	1	Make sure Hazardous Material warning signs are posted as required	PM	Fixed Hazardous Materials Incident
4.2	4	3	Educate public on Thunderstorm & Lightning hazards and Tornados and inform on siren use	PE	Thunderstorm & Lightening, Tornado
4.3	4	3	Inform public on value of managing trees properly (remove dead branches, etc)	PE	Windstorm
4.4	4	3	Inform public of availability of emergency shelter	PE	Windstorm, Severe Winter Storm, Energy Failure, Tornado
4.5	4	3	Educate public on need to be prepared for severe winter storms	PE	Severe Winter Storm
4.6	4	3	Educate public to stay indoors during Severe Winter Storms, Thunderstorm & Lightning, Tornados, and Hailstorm	PE	Severe Winter Storm, Thunderstorm & Lightning, Tornado, Hailstorm, Windstorm
4.7	4	3	Educate public on need for water conservation	PE	Drought
5.1	5	1	Verify siren operation	PM	Thunderstorm & Lightening, Tornado, Windstorm

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed					
5.2	5	6	Make sure emergency crews are prepared	ES	Transportation of Hazardous Materials Incident, Highway Transportation Incident					
	LeClaire									
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado					
1.2	1, 2	2, 6	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident					
1.3	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease					
2.1	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards					
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism					
3.2	3	4	Complete watershed and hydrology studies of the creeks and rivers within Scott County	NR	River Flooding, Levee Failure, Flash Flood, Dam Failure, Drought, Sinkholes & Land Subsidence, Landslide, Expansive Soils					
3.3	3	5	Utilize traffic calming measures	SP	Highway Transportation Incident					
3.4	3	5	Identify critical facilities such as lift stations where back-up power generators should be installed; seek funding for installation as needed.	SP	Energy Failure, River Flood					
3.6	3	5	Develop stream modification/channel improvement project	SP	River Flood, Flash Flood, Levee Failure, Dam Failure					
3.7	3	5	Remove asbestos from public buildings	SP	Fixed Hazardous Materials Incident, Human Disease Incident, Structure Failure, Structural Fire					
4.1	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure					

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.2	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm
4.3	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.4	4	3, 6	Use social media such as Twitter, Facebook or mass texting systems to notify the public on hazardous events	PE, ES	All Hazards
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards
5.3	5	6, 1	Recommend a policy change to assign an on call secondary roads plow to ambulance and fire stations to ensure safety of responders during extreme weather hazards	ES, PM	Severe Winter Storm
			Long Grove		
2.1	2	1	Adopt and enforce current building codes	PM	Windstorm, Severe Winter Storm, Tornado, Structural Fire
3.1	3	1, 6	Construct sand and salt storage facility	PM, ES	Severe Winter Storm
3.2	3	6	Ensure each public facility has back-up generators	ES	Energy Failure
3.3	3, 1	5, 1	Install second well	SP, PM	Drought
3.4	3, 2	1	Adopt SUDAS for Infrastructure Construction standards	PM	Structural Failure, Severe Winter Storm
			Maysville		
4.1	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.2	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.3	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire
			McCausland		
1.1	1, 2	2, 3	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
1.2	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
1.3	1, 3	5	Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools and day care centers	SP	Tornado, Thunderstorm & Lightning, Hailstorm, Windstorm
1.4	1, 4	3, 2, 6	Encourage those dependent on oxygen extractors to install back-up generators	PE, PP, ES	Energy Failure
1.5	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease
2.1	2	1	Join the National Flood Insurance Program	PM	River Flood, Flash Flood
3.2	3	5	Identify critical facilities such as lift stations where back-up power generators should be installed	SP	Energy Failure, River Flood
4.1	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm
4.3	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm
4.4	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.5	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.6	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire
4.7	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.8	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism
			New Liberty		
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident
1.2	1	3	Promote use of NOAA weather radios	PE	All Hazards
1.3	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.4	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
4.1	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm
4.2	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.3	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.4	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire
4.5	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire
4.6	4	3	Develop a check-on-neighbor program for vulnerable populations	PE	All Hazards
4.7	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident
4.9	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.10	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards
4.8	4	3, 6	Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release.	PE, ES	Fixed Hazardous Materials Incident
			Panorama Park		
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards
1.4	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.5	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
2.2	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire
2.3	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood
4.1	4	3	Educate the public on the dangers of flash flooding	PE	Flash Flood
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm
4.3	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.4	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.5	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire
4.6	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.7	4	3	Develop a check-on-neighbor program for vulnerable populations	PE	All Hazards
4.8	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident
4.9	4	3, 6	Educate the public on river flooding and what they need to do when an event occurs	PE, ES	River Flood
4.10	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards
4.11	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood
			Princeton		
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards
1.4	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
1.5	1, 3	5	Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools and day care centers	SP	Tornado, Thunderstorm & Lightning, Hailstorm, Windstorm
3.2	3	2, 5	Construct or implement flood controls for city infrastructure to include ditch re-profiling, culvert expansion, Hesco barriers, and potential berms.	PP, SP	River Flood, Flash Flood

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
4.1	4	3	Educate the public on what river flood levels on the Mississippi and Wapsipinicon actually mean	PE	River Flood
4.2	4	3, 6	Educate the public on river flooding and what they need to do when an event occurs	PE, ES	River Flood
4.3	4	3, 6	Educate the public on how to minimize damage their residences and businesses	PE, ES	River Flood
4.4	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood
4.5	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism
			Riverdale		
1.1	1	5	Add tornado siren in Haven Acres subdivision.	SP	Tornado
1.2	1, 2, 3	6	Maintain existing fire equipment	ES	Structural Fires
1.3	1, 2, 3	6	Purchase additional fire equipment as required	ES	Structural Fires
1.4	1,2,3,5	1, 3	Distribute the a "File of Life" kit to each citizen of Riverdale.  Make sure that each resident understand the importance of medical information readily available.	PM, PE	Flash Flood, Structural Fires, Tornado, Energy Failure, Human Disease Incident, Human Disease Pandemic, Severe Winter Storms, Energy Failure
2.1	2, 3	5	Install new storm water sewer line or replace existing storm water sewer line with appropriately sized sewers as city land use changes.	SP	Flash Flood
3.1	3	6	Revise the severe winter storms snow removal plan to keep City Hall/Fire Department clear and open, followed by clearing 1 1/2 lanes open on all roads, and finally clearing all roads completely.	ES	Severe Winter Storms

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed		
5.1	5	6	Continue education and certification of fire fighters	ES	Structural Fire		
			Walcott				
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident		
1.2	1	3	Promote use of NOAA weather radios	PE	All Hazards		
1.4	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease		
4.4	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm		
4.8	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident		
4.2	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure		
2.1	2, 3	4	Establish natural vegetation buffers and removal of dead vegetation next to sensitive lands and forestry improvements such as tree plantings	NR	River Flood, Levee Failure, Flash Flood, Sinkholes & Land Subsidence		
1.3	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado		
4.5	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado		
4.9	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards		
4.3	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm		
4.7	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire		
4.6	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire		
4.1	4	3	Educate the public on the dangers of lightning	PE	Thunderstorm & Lightning		
	Unincorporated Scott County						

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards
1.4	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.5	1, 2	1	Complete or update land use ordinances, codes and regulations to decrease risk in areas susceptible to hazards	PM	River Flood, Tornados, Severe Winter Storms, Levee Failure, Thunderstorm & Lightning, Flash Flood, Hailstorm, Fixed Hazardous Materials Incident, Transportation of Hazardous Materials Incident, Railway Transportation Incident, Highway Transportation Incident, Windstorm, Sinkholes & Land Subsidence, Landslide, Expansive Soils
1.6	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
1.7	1, 3	5	Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools and day care centers	SP	Tornado, Thunderstorm & Lightning, Hailstorm, Windstorm
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood
2.2	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire
2.3	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards
2.4	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood
2.5	2, 4	1, 3	Participate in the Community Rating System	PM, PE	River Flood

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
3.2	3	4	Complete watershed and hydrology studies of the creeks and rivers within Scott County	NR	River Flooding, Levee Failure, Flash Flood, Dam Failure, Drought, Sinkholes & Land Subsidence, Landslide, Expansive Soils
3.3	3	5	Replace or retrofit bridges and culverts to meet capacity requirements	SP	River Flood, Levee Failure, Flash Flood, Dam Failure, Transportation of Hazardous Materials Incident, Fixed Hazardous Materials Incident, Structural Failure, Highway Transportation Incident, Waterway Incident
4.1	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm
4.3	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado
4.4	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat
4.5	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire
4.6	4	3	Create multi-lingual educational materials for hazards	PE	All Hazards
4.7	4	3	Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste	PE	Transportation of Hazardous Materials Incident
4.8	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards
4.9	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards
5.3	5	3	Join the Iowa Floodplain and Stormwater Management Association	PE	River Flood, Flash Flood
5.4	5	3	Establish workshops and training functions for all community floodplain managers	PE	Flash Flood, River Flood
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism
			<b>Bettendorf Community School District</b>		
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
4.1	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards
			North Scott Community School District		
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure
4.1	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards
			Pleasant Valley Community School District		
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure

co	2
ounty	2
/ Multi-Ju	
lulti-Jurisdictional H	
Hazard M	
Mitigation	
$\vdash$	1

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed		
4.1	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards		
	Eastern Iowa Community College District (Scott County Campuses)						
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado		
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure		
4.1	4, 5	3	Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people my congregate	PE	All Hazards		

#### V. PLAN MAINTENANCE PROCESS

#### Monitoring the Plan

Scott County will be the lead in the overall monitoring of the plan. The Planning Committee structure as described in the "Planning Process" section will be maintained to assure that each jurisdiction participates. Jurisdictions will be asked to fill vacancies at least annually to maintain a primary contact for the plan maintenance process. The Scott County Planning and Development Department will schedule an annual meeting of the Planning Committee to track progress made on implementation of priority actions for both the planning area as a whole and individual jurisdictions. Generally, jurisdictions with their own ordinances and enforcement procedures will be responsible for monitoring their individual mitigation actions. At the annual meeting, the Planning Committee will also review the plan and make recommendations whether plan amendments or updates are needed due to changing conditions.

#### Evaluating the Plan

Criteria used in evaluating the plan will be based on the success of carrying out priority mitigation actions as identified in the plan. As part of the annual meeting described above, the Planning Committee will also evaluate whether events of the previous year have affected the priority ranking of identified hazards. Finally, the Planning Committee will evaluate whether the benefits of the priority actions are addressing the identified goals and objectives of the plan. The Scott County Planning and Development Department will be responsible for preparing periodic progress reports on the plan. This report will be copied to the chief elected officials of the participating jurisdictions and other primary contacts as appropriate.

#### Updating the Plan

The plan will be updated within five years of the date of the Federal Emergency Management Agency's (FEMA) approval of the plan as required by part 201.6(c)(4)(i) of the Local Hazard Mitigation Plan Review Crosswalk. The plan may be updated earlier at the discretion of the Planning Committee, or in the event of a Presidential Disaster Declaration, which requires an update by regulation. The Scott County Planning and Development Department will be responsible for collecting and maintaining information pertinent to future plan updates based on recommendations of the Planning Committee. Any changes will be documented and appended to the plan document in a section titled "Amendments" until such time as a full update is scheduled. If no earlier update is needed, the Planning Committee will evaluate need for funding assistance for the update at its third annual meeting. This will allow time to make an application for planning grant funds and identify whether a contract with a consultant will be necessary for the update process. Actions to undertake the plan update should be scheduled so that there is continuity of FEMA approval for the applicable plan document.

#### **Incorporation Into Existing Planning Mechanisms**

Early in the planning process, participating jurisdictions were asked to list their own existing local planning mechanisms and ordinances to evaluate what was already in place to incorporate the requirements of the mitigation plan. These lists are summarized in Chapter II of the plan. The City of Davenport, having the only pre-existing Hazard Mitigation Plan, has not had the opportunity to officially incorporate the 2007 plan into any other planning mechanisms; however the general principals of that plan are used regularly with their planning philosophies.

#### What:

For this initial plan, incorporating requirements of the mitigation plan will focus on existing planning mechanisms common among participating jurisdictions. These include:

- Comprehensive/Land Use Plans
- Subdivision Regulations
- Zoning Ordinances
- Building Codes
- Flood Plain Management Ordinances

Comprehensive/land use plans, or subdivision regulations for communities without a current comprehensive plan, provide the guidance for a community's ongoing and future development. The remaining ordinances and regulations listed above provide the enforcement tools for those development plans.

#### Who:

Scott County Planning and Development Department will collect information on review and incorporation of requirements of the mitigation plan. Smaller communities that do not have their own planning and ordinance enforcement officials will contract out their enforcement. Larger communities with their own planning and ordinance enforcement officials will review their own existing planning mechanisms. These larger communities can communicate any adjustments in their planning mechanisms through their representation on the Planning Committee.

#### How:

Existing planning mechanisms will be reviewed for consistency with the requirements of the Local Hazard Mitigation Plan in order to avoid duplication of efforts among jurisdictional departments or enforcement officials. Risk analysis and vulnerability data from the Local Hazard Mitigation Plan should be incorporated in the comprehensive/land use plans of each participating jurisdiction during regular review and update cycles. Risk analysis and vulnerability data and mitigation actions will be incorporated into enforcement tools where appropriate. For example, references to the scale of earthquake intensity may be appropriate to building codes. Any adjustments or amendments to existing planning mechanisms will be made through the regular review cycle of the participating jurisdiction. Inconsistencies found between existing planning mechanisms and the Local Hazard Mitigation Plan should be reported to the Scott County Planning and Development Department for the annual plan review meeting.

#### When:

Scott County Planning and Development Department will report at least annually on the progress of incorporating requirements of the mitigation plan through the meeting of the Planning Committee as described in the "Monitoring the Plan" section above. Any issues reported of inconsistency between the Local Hazard Mitigation Plan and existing planning mechanisms will be considered for plan amendments or updates.

#### Continued Public Involvement

Scott County intends to make use of its website for continued public involvement. The website has been used in the plan process to keep the public informed about the plan document drafts in progress and planning committee meetings. The website will continue to be used to post the

final Local Hazard Mitigation Plan document as adopted and approved by FEMA. The website also contains related hazard mitigation resources and links. Annual meetings of the Planning Committee will be posted on the website as well as Scott County's normal means of meeting posting. Progress reports will also be posted on the website as issued. Public comments on the plan process or document will be recorded and reported at the annual meeting of the Planning Committee. The City of Davenport used the creation of a County-wide Multi-Jurisdictional Plan as a forum for public comment and participation throughout the plan maintenance period between the 2007 plan and the 2012 plan.

			1.		т	4
A	gg	en	a1	$\mathbf{X}$	1-	1

APPENDIX I-1	DRAFT	RESOLU	JTION
--------------	-------	--------	-------

#### Resolution #MM-DD-YY-??

## APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

**WHEREAS**, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

**WHEREAS**, the BSRC and County staff have prepared the Plan in accordance with guidelines provided by FEMA; and

WHEREAS, those municipalities within Scott County that have participated in the multijurisdictional plan process will each pass their own resolutions to approve and adopt the plan; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Scott County Multi-Jurisd	liction Local	Hazard Mitigation Pla	n was presented to
the Scott County Board of Supervisors on _	(date)	<u>;</u> and	

**NOW, THEREFORE BE IT RESOLVED** that the Scott County Board of Supervisors hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan and authorizes it to be submitted to IHSEMD and FEMA for review and approval as having met the requirements of the grant funding provided for its mitigation activities. The plan document will be adopted in the final format approved by FEMA.

Passed and approved thistl	h day of	, 201
ATTEST:		

An	nen	dix	<b>I-2</b>
$\Delta \mathbf{p}$	hen	UIA	1-4

APPENDIX I-2 ADOPTION RESOLUTIONS

Resolution # 290-12

## A RESOLUTION IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Bettendorf, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

**NOW, THEREFORE BE IT RESOLVED** by the Mayor and the City Council of the City of Bettendorf hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 18 day of	December, 201
Es. Alla	y Los
, Mayo	ł –
Attest:	
Decker P. Le	oels.
, Clerk	- HARM

#### CITY OF BLUE GRASS, IOWA RESOLUTION 2012-02

A RESOLUTION OF THE CITY OF BLUE GRASS IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Blue Grass, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

**WHEREAS**, the City of Blue Grass held a public hearing on the 21<sup>st</sup> day of February, 2012, and after careful consideration and receiving no oral or written objections, and careful review by the Mayor and the City Council approve the Plan as drafted.

**NOW, THEREFORE BE IT RESOLVED,** by the Mayor and the City Council of the City of Blue Grass, that the City of Grass hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Passed by the City Council of the City of Blue Grass, Iowa, this 21st day of February, 2012.

Approved and signed by the Mayor of the City of Blue Grass, Iowa, this 21st day of February, 2012.

Mayor Brinson L. Kinzer

Attest: Ann M. Schmidt CMC, City Clerk/Financial Officer

# Resolution Number 2012-2 A RESOLUTION OF THE CITY OF BUFFALO IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (THSEMD) for developing a multi-jurisdictional local, hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Buffalo, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public *review* and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Buffalo has reviewed the Plan; and

**NOW, THEREFORE BE IT** RESOLVED by the Mayor and the City Council of the City of Buffalo that the City of Buffalo hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan.

Adopted this 9<sup>th</sup> day of January, 2012 at the meeting of the Mayor and City Council for the City of Buffalo.

axor, Doug Anderson

City Clerk Tanna Leonard

#### City of Davenport

Committee: Community Development

Department: Community Planning & Economic Development

Contact Info: Wayne Wille 326-6172

Ward: All

ACTION / Date CD 02/01/12 FEB - 8 2012

#### Subject:

RESOLUTION to adopt the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan [All

Wards]

#### Recommendation:

Approve the resolution

#### Relationship to Goals:

Continued public safety improvements

Work closely with State

#### Background:

The City of Davenport has participated along with twenty other jurisdictions with Scott County as the lead agency in development of a county-wide Multi-Jurisdiction Local Hazard Mitigation Plan which meets the requirements of the Disaster Mitigation Act of 2000. Davenport's participation in this process acts as the five-year update to its existing plan. With adoption of this plan and approval by the Federal Emergency Management Agency (FEMA) Davenport will remain eligible for funding under four programs: Pre-Disaster Mitigation (PDM), Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) and Severe Repetitive Loss (SRL).

Scott County developed the Plan with the assistance of the Bi-State Regional Commission (which also assisted in the 2003 and 2007 Davenport hazard mitigation plans). The planning process was guided by a planning committee comprised of representatives from the participating jurisdictions as well as other local, state and federal agencies. Over the course of more than a dozen public meetings, this committee prepared, reviewed and now recommends adoption of the plan.

An executive summary of the plan is attached along with a summary of the process. Copies of the full plan document are available for viewing on the Scott County Planning and Development website at <a href="www.scottcountyiowa.com/planning/">www.scottcountyiowa.com/planning/</a>. Printed copies are available for viewing at the office of Scott County Planning and Development. Printed copies are limited due to the plan size (over 500 pages with appendices).

An initial public hearing for public comments and review of the draft plan was held on Monday, September 19, 2011 at the Scott County Library, Eldridge, Iowa. Scott County held its public hearing on the plan January 19, 2012. No public hearing is required for other jurisdictions to approve and adopt this plan.

### Resolution No. <u>2012 - 39</u>

Resolution offered by Alderman Meeker.

RESOLVED by the City Council of the City of Davenport.

RESOLUTION to adopt the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan [All Wards]

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management Agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the City of Davenport first had a Hazard Mitigation Plan in 2003 and updated the plan in 2007;

WHEREAS, the City of Davenport's participation in the County's plan development process acts as the required five-year update to its 2007 Pre-Disaster Mitigation Plan; and

WHEREAS, an adopted disaster mitigation plan is required for Davenport to receive federal grant funds for disaster mitigation and recovery;

WHEREAS, the plan has been the subject of public hearings (10/9/11 Scott County Library-Eldridge and 01/19/12 Scott County Administration Center), and public review and comment during its development; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan.

Approved:

William E. Gluba, Mayor

Attest:

Resolution Number #
A RESOLUTION OF THE CITY OF LINE IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN
WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and
WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and
WHEREAS, the City of Dixo , with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and
WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and
WHEREAS, the Plan process has been subject to public review and comment during its development; and
WHEREAS, the Mayor and the City Council of the City of has reviewed the Plan; and
NOW, THEREFORE BE IT RESOLVED by the Mayor and the City Council of the City of Oxon that the City of Oxon hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.
Adopted this $5^{-1}$ day of $10^{-1}$ , $2012$ at the meeting of the Mayor and City Council for the City of $10^{-1}$ .
SHEVE LAUGHENMayor
Attest:

#### Resolution Number # 12-0207

# A RESOLUTION OF THE CITY OF <u>Donahue</u> IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Dondhue, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Donahue has reviewed the Plan; and

NOW, THEREFORE BE IT RESOLVED by the Mayor and the City Council of the City of Donahue that the City of Donahue hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 6 day of February, 2012 at the meeting of the Mayor and City Council for the City of Donahue.

3/4/12 , Mayor

Attest:

2-4-12, Clerk

FEB 1 3 2012

#### Resolution 2012-04

## A RESOLUTION OF THE CITY OF ELDRIDGE IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Eldridge, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Eldridge has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Mayor and the City Council of the City of Eldridge that the City of Eldridge hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 20<sup>th</sup> day of February, 2012 at the meeting of the Mayor and City Council for the City of Eldridge

#### **RESOLUTION #12-13**

### A RESOLUTION APPROVING AND ADOPTING THE SCOTT COUNTY MULTI- JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and,

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and,

WHEREAS, the City of LeClaire, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and,

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and,

WHEREAS, the Plan process has been subject to public review and comment during its development; and,

WHEREAS, the Mayor and the City Council of the City of LeClaire have reviewed the Plan; and,

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of LeClaire, Iowa that the City does hereby approve and adopt the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions' Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

PASSED AND APPROVED this the 16th day of January, 2012.

Robert J. Scannell, Mayor

ATTEST:

Edwin N. Choate, City Administrator

#### Resolution Number # 2012-02

# A RESOLUTION OF THE CITY OF LONG GROVE IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Long Grove, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Long Grove has reviewed the Plan; and

NOW, THEREFORE BE IT RESOLVED by the Mayor and the City Council of the City of Long Grove that the City of Long Grove hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 14th day of February, 2012 at the meeting of the Mayor and City Council for the City of Long Grove.

Roll Call Vote: Ayes- Abergtin, Dalton Schmidt Nays-Absent-Davis. Thilessen

Attest:

Lexic Wil can

270

Resolution Number #
A RESOLUTION OF THE CITY OF Maysulle IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-
JURISDICTION LOCAL HAZARD MITIGATION PLAN
WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and
WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and
WHEREAS, the City of May with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and
WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and
WHEREAS, the Plan process has been subject to public review and comment during its development; and
WHEREAS, the Mayor and the City Council of the City of Mayor le has reviewed the Plan; and
NOW, THEREFORE BE IT RESOLVED by the Mayor and the City Council of the City of May wille that the City of May wille hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.
Adopted this 13 day of Fehruary, 2012 at the meeting of the Mayor and City Council for the City of Mayor ille.
Maulen Ralls Mayor
Attest:
Maysville, Clerk

#### McCausland City Council Meeting Minutes January 10, 2012

Mayor Koehn opened the meeting at 7:00 p.m. with the Pledge of Allegiance. Present were McCaughey, Eckhart, Tuftee and Claussen. Ross arrived at 7:05pm.

It was moved by Eckhart and seconded by McCaughey to approve the consent agenda. All ayes, motion carried.

Staff Reports:

Police Report – No report.

Clerk's Report – Bosworth gave an update on the codification process which is nearing completion. She reminded the council of their training session on Thursday evening. Bosworth spoke with Kathy Wine of River Action and wondered if the Council would like a presentation from her next month. They did and it will be scheduled.

Maintenance – Schoonover reported on the information gathered regarding "Mt. McCausland." We could get rid of at least one half of the pile and still have enough to raise the lagoon, should that be necessary.

Committee Reports: None

Department Reports:

Parks and Rec – No report.

Public Works – No report.

Community & Economic Development – Ross is checking into updating the community center in order to make it more functional as a center point of our community. He would like to hold some public meetings to get some community improvement ideas.

Public Safety: Eckhart reported that the Fire Department will be getting a new fire truck in July with help from a Riverboat Development Authority grant. The fire department currently has 24 members. They can now receive text messages regarding emergencies. He also reported on the information he was researching on the ditches.

General Government – Reminder of the January 17<sup>th</sup> budget committee meeting and the planning training on January 24<sup>th</sup>. Policy handbook planning will be held on February 6<sup>th</sup> at 6pm.

Mayor's Comments: Mayor Koehn discussed the need to update some of our contracts. He asked the department heads to consider how the town can continue to progress forward. While we may not be able to do much in the way of economic development, we still can improve our town. He expressed his appreciation for the work the council has been doing and the ideas they are bringing forth. Eckhart expressed his appreciation for the assistance of the Clerk on his projects as well and the Mayor agreed.

Old Business: None.

New Business: It was moved by McCaughey and seconded by Tuftee to approve the draft Hazard Mitigation Plan. All ayes, motion carried.

Welcome packets or baskets were discussed. It was moved by Tuftee and seconded by Ross to proceed and bring a prototype to the next meeting and funding could then be discussed. All ayes, motion carried.

	ald have a City-wide notification process for meetings and entioned that next year the Air Show will be the same
There was no public comment. Meeting adjoint	urned at 8:15 p.m.
	Attest:
	<del></del>
Damien Koehn, Mayor	Sheila Bosworth, City Clerk

### Resolution Number # 50-12

# A RESOLUTION OF THE CITY OF PANOR AMA PARK IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Parcama Parc, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Pawarama Parkhas reviewed the Plan; and

NOW, THEREFORE BE IT RESOLVED by the Mayor and the City Council of the City of Pane Pane that the City of Pane Pane hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this  $15^{\circ}$  day of  $\underline{Febeuary}$ , 2012 at the meeting of the Mayor and City Council for the City of  $\underline{Panseamp}$   $\underline{Faek}$ 

Dans White
, Mayor
Attest:
May ahegren, Clerk

FEB 0 1 2013

#### Resolution Number #2012-02

## A RESOLUTION OF THE CITY OF PRINCETON IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Princeton, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Princeton has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Mayor and the City Council of the City of Princeton that the City of Princeton hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 9th day of February, 2012 at the meeting of the Mayor and City Council for the City of Princeton.

Brent Herman, Mayor

Attest:

AJ Grunder, City Clerk

#### Resolution Number #2012-01

## A RESOLUTION OF THE CITY OF RIVERDALE, IOWA FOR THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Riverdale, Iowa, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Riverdale, Iowa has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Mayor and the City Council of the City of Riverdale, Iowa that the City of Riverdale, Iowa hereby approves and adopts the Scott County Multi-Jurisdiction Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA final approval.

Adopted this 7th day of February, 2012 at the meeting of the Mayor and City Council for the City of Riverdale, Iowa.

Ayes:

Abstain:

Nays:

Channon, Hupp, Littrel, Halsey

Paddock

John LaFranklin Mayor

ATTEST:

Mary Frances Blevins, Assistant City Clerk

#### Resolution Number # 2012-8

# A RESOLUTION OF THE CITY OF WALCOTT IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Walcott, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Mayor and the City Council of the City of Walcott has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Mayor and the City Council of the City of Walcott hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this  $6^{th}$  day of February, 2012 at the meeting of the Mayor and City Council for the City of Walcott.

Jim Couper, Mayor

Attest:

Lisa Rickertsen, Clerk

# RESOLUTION OF THE BETTENDORF COMMUNITY SCHOOL DISTRICT IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the Bettendorf Community School District, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Bettendorf Community School District Board of Education and Administration has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Board of Education of the Bettendorf Community School District that the Bettendorf Community School District hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdiction's Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 21st day of February, 2012 at the meeting of the Bettendorf Community School District.

Barry Anderson, BOE President

Attest:

Colleen Skolrood, BOE Secretary

# A RESOLUTION OF THE COMMUNITY SCHOOL DISTRICT OF NORTH SCOTT IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the COMMUNITY SCHOOL DISTRICT OF NORTH SCOTT, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the School Board of the COMMUNITY SCHOOL DISTRICT OF NORTH SCOTT has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** the School Board of the COMMUNITY SCHOOL DISTRICT OF NORTH SCOTT hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 13th day of February, 2012 at the school	board meeting for the Community
School District of North Scott	
A List	, Board President
	_
Attest:	
Kristy L Looney	_, Board Secretary

# RESOLUTION OF THE PLEASANT VALLEY COMMUNITY SCHOOL DISTRICT IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the Pleasant Valley Community School District, with the assistance from Scott County and BSRC has gathered information and prepared the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, the Plan process has been subject to public review and comment during its development; and

WHEREAS, the Pleasant Valley Community School District Board of Education and Administration has reviewed the Plan; and

**NOW, THEREFORE BE IT RESOLVED** by the Board of Education of the Pleasant Valley Community School District that the Pleasant Valley Community School District hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan as this jurisdiction's Multi-Hazard Mitigation Plan pending FEMA approval of the Plan.

Adopted this 27th day of February, 2012 at the meeting of the Pleasant Valley Community School District.

Deborah Dayman, BOE President

Christine Harvey, BOE Secretar

Attest:

# RESOLUTION OF THE BOARD OF TRUSTEES OF THE EASTERN IOWA COMMUNITY COLLEGE DISTRICT IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

WHEREAS, Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management Agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan, and

WHEREAS, Eastern Iowa Community College District was involved as an interested participant in developing the Scott County plan, and

WHEREAS, Eastern Iowa Community College District has reviewed the plan;

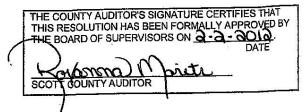
**NOW THEREFORE BE IT RESOLVED** by the Eastern Iowa Community College District Board of Trustees that EICCD hereby approves and adopts the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan as this jurisdiction's multi-hazard mitigation plan, pending FEMA approval of the plan.

Adopted this 12<sup>th</sup> day of March, 2012, at the Board of Trustee's Regular Meeting.

Robert H. Gallagher, Board President

Attest:

Honey H. Bedell, Board Secretary



#### RESOLUTION

# SCOTT COUNTY BOARD OF SUPERVISORS

February 2, 2012

# APPROVAL AND ADOPTION OF THE SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN

BE IT RESOLVED by the Scott County Board of Supervisors as follows:

- Section 1. Scott County applied for and was awarded funding from the Hazard Mitigation Grant Program (HMGP) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for developing a multi-jurisdictional local hazard mitigation plan; and
- Section 2. Scott County contracted with the Bi-State Regional Commission for assistance in preparing the Plan and the Bi-State Regional Commission and County staff have prepared the Plan in accordance with guidelines provided by FEMA; and
- Section 3. The Plan process has been subject to public review and comment during its development and formal public hearings were held on May 6, 2010, August 19, 2011, and January 19, 2012 to allow public comments.
- Section 4. The Scott County Board of Supervisors hereby approves and adopts the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan and authorizes it, determining that it meets the requirements of the grant funding provided for mitigation activities. The plan document will be submitted and adopted in the final format approved by FEMA.
- Section 5. This resolution shall take effect immediately.

APPENDIX II-1 PLANNING COMMITTEE LIST

# Scott County Multi-Jurisdictional Hazard Mitigation Planning Committee

Primary Contacts	Name	Title
Scott County	Tim Huey	Planning Director
Scott County	Larry Linnenbrink	Health Dept.
Scott County	Ross Bergen	EMA Director
Bettendorf	Greg Beck	Planner
Blue Grass	Brinson Kinzer	Mayor
Buffalo	Terry Adams	Fire Chief
Davenport	Wayne Wille	Planner II
Dixon	Steve Laughlin	Mayor
Donahue	Ken Schoenthaler	Mayor
Eldridge	John Dowd	City Administrator
LeClaire	Ed Choate	City Administrator
Long Grove	Joel McCubbin	Public Works
Maysville	Pat Fitzpatrick	City Clerk
McCausland	Robert McCaughey	Councilman
New Liberty	Tim Huey will be their authorized representative	
Panorama Park	Tim Huey will be their authorized representative	
Princeton	AJ Grunder	City Clerk
Riverdale	Jack Franklin	Councilman
Walcott	Lisa Rickertsen	City Clerk
BCSD	Colleen Jansen	Manager of Operations
EICC	Kirk Barkdoll	Director of Operations
NSCSD	Jeff Schwiebert	Superintendent
PVCSD	Ray LaFrentz	Director of Operations
Bi-State	Laura Berkley	Senior Planner
Bi-State	Meghan Overton	Planner
Additional Members of the Planning Com	mittee:	
Buffalo	T.J. Behning	Police Chief
Davenport	Pam Miner	CPED Director
LeClaire	Jim Pfeiffer	Police Chief
Scott County	Dee Bruemmer	Administrator
BCSD	John Campbell	Director of Operations
EICC	Jeff Armstrong	President
NSCSD	John Netwal	Manager of Operations

Appendix II-2	
---------------	--

# **Meghan Overton**

From: Laura Berkley

Monday, May 03, 2010 3:52 PM Sent:

'Alliant Energy'; 'Army Corps of Engineers'; 'Cedar County EMA'; 'Center for Active Seniors To:

Inc'; 'Clinton County EMA'; 'FEMA Region VII'; 'Genisis Health Systems'; 'Humane Society of

Scott County'; 'IHSEMD'; 'Iowa DNR Law Enforcement Division'; 'Iowa East Centrail

TRAIN/CAEI'; 'Iowa NFIP Coordinator'; 'Iowa QC Chamber of Commerce'; 'Iowa State Climatologist'; 'Iowa State Geologist'; Jerry Shirk; 'KLJB - TV 16'; 'KWQC-TV 6'; 'Medic EMA'; 'MidAmerican Energy'; 'Muscatine County EMA'; 'Partners of Scott County Watersheds'; 'QC Magazine'; 'QC Times Editor'; 'QC Times publisher'; 'Red Cross'; 'River Cities Reader'; 'Salvation Army'; 'Scott County EMA'; 'St. Ambrose University'; 'United Neighbors'; 'United

Way'; 'WHBF - TV 4'; 'WOC AM Radio'; 'WQAD - TV 8'

Meghan Overton Cc:

Invitation to Scott County Hazard Mitigation Public Meeting Subject:

AGENDA 5-6-10.pdf Attachments:

## To All Organizations and Interested Parties:

This email is to invite you or another representative of your organization to participate in a planning process to develop a multi-jurisdictional Local Hazard Mitigation Plan for Scott County and its participating municipalities. Scott County was awarded Hazard Mitigation Grant Program (HMGP) funding in March 2009 from the Federal Emergency Management Agency (FEMA) to develop the plan. Scott County contracted with Bi-State Regional Commission to guide the preparation of a Local Hazard Mitigation Plan. In addition to the participating municipalities and County staff, the planning process requires a broad range of input and expertise from individuals and organizations with interest in hazard mitigation within Scott County.

The plan will meet the requirements of the Disaster Mitigation Act of 2000, also known as DMA 2000. The Act, which was signed into law on October 30, 2000, streamlines delivery and utilization of disaster recovery assistance and places increased emphasis on local mitigation planning. It requires local governments to develop and submit mitigation plans as a condition of receiving project grants under four FEMA programs: Pre-Disaster Mitigation (PDM), Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) and Severe Repetitive Loss (SRL).

Those participating are asked to review materials as the planning document develops. Participants are invited to attend planning group meetings as scheduled. A public introductory meeting will be held on Thursday, May 6, 2010 at 5:30 pm at the Scott County Administrative Center, 600 West Fourth Street, Davenport Iowa in the First Floor Board Room. The agenda for the meeting is attached. You or your designated representative will be included in an email list to received notice of meetings and materials to review. If you would prefer to receive information by mail, please contact us with the appropriate contact information. Because of the volume of information anticipated in this process, Scott County will make use of its website at http://www.scottcountyiowa.com/planning/hazmit.php to keep the public informed about scheduled meetings, plan document status, and supplemental information about mitigation planning.

Please let us know if you or another representative of your organization would be willing to participate in this planning process, so that we may develop an accurate contact list. Also, if you know of other organizations that should be included in this process, please let us know. Bi-State Regional Commission will be assisting the County in developing the plan document and may be contacted regarding correspondence and questions. Contact information is provided below. Thank you for your assistance with this planning process, and we hope to see you at the meeting on May 6th.

Sincerely,

APPENDIX II-3 ADVISORY COMMITTEE LIST

# Scott County Multi-Jurisdictional Hazard Mitigation Advisory Committee

Organization	Contact Name	Title	
	hborhood Groups and Non-Profits		
Safe Streets	•		
Partners of Scott County Watersheds	Clare Kerofsky	Coordinator	
Red Cross	Betsy Pratt	CEO	
United Way	Scott Crane	President	
Genesis Health Systems	Joyce Engelmann	Corporate Communications Manager	
Trinity Health Care	Rick Seidler	President/CEO	
Center for Active Seniors, Inc. (CASI)	Thomas Bahls	President/CEO	
Salvation Army	Billie-Jo Richardson	Captain	
Medic Emergency Medical Service	Linda Frederiksen	Executive Director	
Iowa East Central T.R.A.I.N.	Roger Pavey	Director	
United Neighbors	Dr. Ida Johnson	Executive Director	
	nal and Local Government Represen	ntatives	
Iowa State University Scott County Extension	Becky Bray	County Extension Director	
Iowa State Patrol	District 12 Office		
U.S. Geological Survey	Iowa Water Science Center		
Scott County Community Services	Lori Elam	Director	
U.S. Coast Guard	Marine Saftey Detachment Quad Cities		
Scott County Humane Society			
IHSEMD	Ms. Linda Roose	Lead State Mitigation Project Officer	
Iowa NFIP Coordinator	Mr. Bill Cappuccio	State Floodplain Manager	
Iowa State Climatologist	Mr. Harry Hillaker	Climatologist	
Iowa State Geologist	Dr. Robert Libra	Geologist	
	Neighboring Communities		
Rock Island County EMA	Jerry Shirk	Deputy Director	
Muscatine County EMA	Jeff Carter	Coordinator	
Cedar County EMA	Tim Malott	Coordinator	
Clinton County EMA	Chance Kness	Coordinator	
City of Durant	Mr. Richard Harmsen	Mayor	
Business and Developmental Agencies			
Iowa-American Water Company			
Quad Cities Chamber	Tara Barney	Chief Executive Officer	
H	Federal Agency Representatives		
FEMA Regional VII	Danette Kobalt	JFO Planning Team Lead	
USACE	Mr. Jerry Skalak	Project Manager / Floodplain Manager	
National Weather Service	Ms. Donna Dubberke	Meterologist	

Organization	Contact Name	Title		
	Academic Institutions			
Davenport Community School District	Juilo Almanza	Superintendent		
St. Ambrose University	Tim Phillips	Dean of Students		
Palmer College of Chiropractic				
	Media			
Quad City Times	Julie Bechtel	Publisher		
Quad City Times	Steve Thomas	Editor		
WOC-AM Radio	Mark Minnick	News Director		
River Cities Reader	Jeff Ignatius	Managing Editor		
KWQC-TV 6	Mr. Mike Ortize			
KWQC-TV 6	Mr. Mike Ortize			
WHBF -TV 4	Mr. Marshall Porter	General Manager		
WQAD-TV 8	Mr. Larry Rosmilso	President and General Manager		
KLJB - TV 16	Doug Rutherford			
QC Magazine	Beth Clark	Publisher/Editor		

An	ner	dix	II-4
7 V V	NCI	IUIA	

Scott County Multi-Jurisdie	ctional Hazard Mitigation Plan	Appendix II
Scott County Multi-Jurisdie	etional Hazard Mitigation Plan	Appendix II
APPENDIX II-4	PUBLIC HEARING INFORMATION	N AND COMMENTS



### FOR MORE INFORMATION CONTACT:

Laura Berkley, Planner Meghan Overton, Planner Bi-State Regional Commission P.O. Box 3368 Rock Island, IL 61204-3368 (309) 793-6300

FOR IMMEDIATE RELEASE:

# SCOTT COUNTY HAZARD MITIGATION PUBLIC MEETING

Scott County and Bi-State Regional Commission will be hosting an informational public meeting on the Scott County Multi-Jurisdictional Hazard Mitigation Planning effort, which is currently underway. Members from the public as well as interested organizations are encouraged to participate in a planning process to develop the multi-jurisdictional Local Hazard Mitigation Plan for Scott County and its participating municipalities. The meeting will be held on Thursday May 6, 2010 at 5:30PM in the Scott County Administrative Center First Floor Board Room, 600 West Fourth Street, Davenport, Iowa.

Scott County was awarded Hazard Mitigation Grant Program (HMGP) funding in March 2009 from the Federal Emergency Management Agency (FEMA) to develop the hazard mitigation plan. The plan will meet the requirements of the Disaster Mitigation Act of 2000, also known as DMA 2000. The Act streamlines delivery and utilization of disaster recovery assistance and places increased emphasis on local mitigation planning. It requires local governments to develop and submit mitigation plans as a condition of receiving project grants under four FEMA programs, which can fund flood buy-out programs, elevation of flood-prone properties, and storm water management projects. In addition to the participating municipalities and County staff, the planning process requires a broad range of input and expertise from individuals and organizations with interest in hazard mitigation within Scott County.

In addition to the formal public participation requirements for the plan, the County will make use of its website: http://www.scottcountyiowa.com/planning/hazmit.php to keep the public informed about the plan scheduled meetings and plan document status. If you would like further information, or if you would like to participate, Bi-State Regional Commission (309-793-6300) contacts are Laura Berkley or Meghan Overton. For Scott County, contact Tim Huey, Planning & Development Director (563-326-8643)

# **AGENDA**

# Public Kick-Off Meeting Scott County Multi-Jurisdiction Local Hazard Mitigation Plan

First Floor Board Room, Scott County Administrative Center 600 West Fourth Street, Davenport, IA 52801 May 6, 2010 at 5:30 PM

- I. Introductions
- II. PowerPoint presentation Bi-State Staff
   What is Hazard Mitigation?
   What will the Hazard Mitigation Plan Include?
- III. Open Forum for Review of Drafted Section of the Plan
- IV. Questions and Answers

Next meeting date: September 30, 2010 3:30PM

# **MEETING ATTENDANCE RECORD** MEMBERS, GUESTS & STAFF

(Please Print Legibly)

Meeting of: <u>Scott County Multi</u> -Jur	isdictional Hazard Mitigation Plan Publi	c Kick Off
Date: May 6, 2010 Tim	ne: <u>5:30 P.M.</u> To	Minutes: YesX No
Place of Meeting: <u>Scott County Ac</u>	dministration Center - Davenport, IA	
Name:	Title/Representing:	Email:
1. Hay Shivers	ES. Director Red Cross	Shivers gausqued cross.or
2. They there	Scott County	
3. Laura Berkern	Bi-State Bi-State	
4. Maghan Overton	Bi-State	
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		

# No public comments were received at the May 6, 2010 Public Kick-Off Meeting

# COPY OF NOTICE EXHIBIT "A"

# AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLIC HEARING
Scott County is in the final stages of preparing a Multi-Jurisdictional Hazard Mitigation Plan. Jurisdictional Plan Hazard Mitigation Plan. Jurisdictional participating in this plan include Scott County, the Cities of Bettendorf, Blue Grass, Buffalo, Davenport, Dixon, Donahue, Eldridge, Leclaire, Long Grove, Maysville, McCausland, New Liberty, Panorama Park, Princeton, Riverdale and Whicott, Bettendorf CSD, and Eastern lowa Community College. A public hearing in the property of the Scott County Library, 200 North Sixth Avenue, Eldridge, Iowa in the First Amendment Meeting Room. The hearing will be held as an informal openhouse meeting. The draft plan will be available for review at http://www.scottcountyjowa.com/planning/hazmit.php beginning September 7, 2011. Questions or comments regarding the draft plan may be directed to Ms. Laura Berkley or Ms. Meghan Overton of Bi-State Regional Commission at (309) 793-6300 or by mail at 1504 3rd Avenue, PO Box 3368, Rock Island, Illinois. Mailed comments must be post marked by October 7, 2011.

STATE OF IOWA SCOTT COUNTY,

SS.

The undersigned, being first duly sworn, on oath does say that he/she is an authorized employee of THE QUAD-CITY TIMES, morning edition, a daily newspaper printed and published by Lee Enterprises, Incorporated, in the City of Davenport, Scott County, Iowa, and that a notice, a printed copy of which is hereto annexed as Exhibit "A" and made a part of this affidavit, was published in said THE QUAD-CITY TIMES, on the following dates:

9-7-11

The affiant further deposes and says that all of the facts set forth in the foregoing affidavit are true as he/she verily believes.

Kim Coopman

Subscribed and sworn to before me by said affiant this \_

September

20 /

day of

STRIAL P

STEPHEN H. THOR
Commission Number 168839
My Commission Expires
3-24-12

softwar 11 )

Notary Public in and for Scott County, Iowa

EXHIBIT "A"

NOTICE OF PUBLIC MEARING

Scott County Is in the final stages of preparing a Multi-Jurisdictional dazard Mitigation Plan. Jurisdictions the property of the Missing Property of the Missing Property of Property o

SEP 0 9 2011

# AFFIDAVIT OF PUBLICATION

STATE OF IOWA SCOTT COUNTY,

SS.

The undersigned, being first duly sworn, on oath does say that he/she is an authorized employee of THE BETTENDORF NEWS, morning edition, a daily newspaper printed and published by Lee Enterprises, Incorporated, in the City of Davenport, Scott County, Iowa, and that a notice, a printed copy of which is hereto annexed as Exhibit "A" and made a part of this affidavit, was published in said THE BETTENDORF NEWS, on the following dates:

9-8-11

The affiant further deposes and says that all of the facts set forth in the foregoing affidavit are true as he/she verily believes.

Kem Coopman

Subscribed and sworn to before me by said affiant this \_

day of Septer

\_ 20 //\_

THIAL OWA

STEPHEN H. THOR Commission Number 168839 My Commission Expires 3-24-12

Notary Public in and for Scott County, Iowa

SEP 1 2 2011

# PROOF OF PUBLICATION

#### STATE OF IOWA

#### SCOTT COUNTY

Scott County notice
NOTICE OF PUBLIC HEARING
Scott County is in the final stages of preparing a Multi-Jurisdictional Hazard Miltigation Plan. Jurisdictions participating in this plan include Scott County, the Cities of Bettendorf, Blue Grass, Buffalo, Davenport, Dixon, Donahue, Eldridge, LeClaire, Long Grove, Maysville, McCausland, New Liberty, Panorama Park, Princeton, Riverdale and Walcott, Bettendorf CSD, Pleasant Valley CSD, North Scott CSD, and Eastern Iowa Community College. A public hearing for public comments and review will be held on Monday, September 19, 2011 at 6:00 pm at the Scott County Library, 200 North Sixth Avenue, Eldridge, Iowa in the First Amendment Meeting Room. The hearing will be held as an informal open-house meeting. The draft plan will be available for review at http://www.scottcountyiowa.com/planning/hazmit. php beginning September 7, 2011. Questions or comments regarding the draft plan may be directed to Ms. Laura Berkley or Ms. Meghan Overton of Bi-State Regional Commission at (309) 793-6300 or by mail at 1504 3rd Avenue, PO Box 3368, Rock Island, Illinois. Malled comments must be post marked by October 7, 2011.

I Linda Tubbs, being first duly sworn on oath
depose and say; that I am the Publisher of The North Scott Press,
a newspaper published weekly in the City of Eldridge, County of
Scott, State of Iowa, that the Scott County Notice - Multi-
Jurisdictional Hazard Mitigation Plan
hereto attached and made a part hereof, was published once each week
1 weeks in succession, in said newspaper, and that the dates
of publication were Sept. 7, 2011
and that the copy of said printed notice, hereto attached, was cut from
one of said publications.
Linea Dublis

Subscribed and sworn to before me the 7th day of September, 2011.

NOTARY PUBLIC



# **AGENDA**

# Public Hearing For Review of the Draft Scott County Multi-Jurisdiction Local Hazard Mitigation Plan

Scott County Library 200 North Sixth Street, Eldridge Iowa September 19, 2011 at 6:00 PM

- I. Introductions
- II. PowerPoint presentation Bi-State StaffWhat is Hazard Mitigation?What does the Hazard Mitigation Plan Include?
- III. Open Forum for Review of Draft Plan
- IV. Questions and Answers

Public Comments must be received no later than October 7, 2011

# MEETING ATTENDANCE RECORD (PLEASE PRINT LEGIBLY)

SCOTT COUNTY MULTI-JURISDICTION LOCAL HAZARD PLAN - PUBLIC HEARING FOR DRAFT REVIEW									
Monday, September 19, 2011	6:00 P.M.								
SCOTT COUNTY PUBLIC LIBRARY, 200 NORTH SIXTH STREET, ELDRIDGE, IOWA									
NAME	JURISDICTION REPRESENTING	IN-KIND (volunteered time)	COMPENSATED (paid time)	MEMBERS OF THE PUBLIC					
Laura Berkley	BSRC								
Dayasnapp	BSEC								
Meghan Overton	BSRC								
Daya Snapp Meghan Overton Steve LAUGULIN	Dikani	Ą							
Tim this,	Scott Courty	Į Į							
Steve 3 choop				K					
Todd McGreeny	Scott Canty			风					
DIANE HOLS	Sest Court			A .					
Cenai Durem	Scott County		П	X					
Koss Bugen	Scorr County EMA		Æ						
Lawy Linnenbriak	Scott Co Hault		×						
Wayne Wille	Davenport		K						
MIEC Angelos	Scott Coanly			48					
Greg Beck	City of Betrongert		Ŕ						
Rouglas H Littre	City of Riverdale		×						
V									

# Laura Berkley

From: Huey, Timothy [THuey@SCOTTCOUNTYIOWA.com]

Sent: Wednesday, September 28, 2011 9:07 AM

To: todd.mcgreevy@gmail.com

Cc: Board of Supervisors; Bruemmer, Dee; Laura Berkley

Subject: FW: Hazard Mitigation Plan Public Hearing?

## Todd:

Chairman Sunderbruch forwarded your questions on to me and asked that I respond on his behalf.

# What are the intentions of this board regarding consideration of adopting the Hazard Mitigation Plan?

I would not presume to speak for the Board's intentions but would offer the following previous actions taken by the Board in Hazard Mitigation Planning:

September 13, 2001 - Board approved a Hazard Mitigation Plan for Unincorporated Scott County prepared by Ross Bergen, Scott County Emergency Management Agency Coordinator. The plan included a profile of the unincorporated areas of the County, an analysis of potential hazards and an assessment of the risk associated with each of those hazards. The potential hazards assessed with a high probability rating were severe thunderstorms and winter storms with the high winds likely with each, floods; along the Mississippi and Wapsipinicon, as well as small streams and creeks, hazardous material spills, power failures and extreme heat or cold waves. The hazards assessed with a medium probability rating were major fires, major highway or railroad accidents and tornadoes. The plan also included interim and long term mitigation strategies, including specific goals, such as the current effort to acquire flood prone residences located in Pleasant Valley.

At the time that plan was adopted Scott County had submitted a Hazard Mitigation Grant Program Application for the possible acquisition of 24 flood prone properties. A prerequisite of that grant program was that the County adopt a Hazard Mitigation Plan for the unincorporated areas of Scott County. It was similar to the mitigation plans that had been adopted by municipalities and the County wide plan that has been adopted by the Scott County Emergency Management Commission.

**November 13, 2008** - The Board approved the filing of a Notice of Interest for a Hazard Mitigation Planning Grant to the Iowa Department Homeland Security. The resolution approving that filing stated: "Preparation and adoption of a Hazard Mitigation Plan will be a prerequisite for receiving future funding for hazard mitigation projects."

**January 8, 2009** - The Board approved the filing of an application for a Hazard Mitigation Planning Grant with the Iowa Department Homeland Security. The Grant agreement included requirements that the plans meet regulatory requirements and must be approved by the State and FEMA.

**April 30, 2009** - The Board approved an Agreement for Services with the Bi-State Regional Commission for Bi-State Regional Commission staff to prepare a multi-jurisdictional hazard mitigation plan. All of the local government jurisdictions had been included in the grant application.

The Agreement for Services was for the preparation of the Hazard Mitigation Plan on behalf of Scott County and the other jurisdictions. Funding for the plan required a 15% local match which will be made up of in-kind staff time provided by both Scott County staff and other local government staff time.

Would you consider not moving the Plan forward to Iowa Homeland Security and then onto FEMA, in lieu of simply having the plan available to the public and P&Z for consideration?

The Plan is 75% funded through a Federal Grant and 10% from the State. The grant agreement between Scott County and State states: "These funds are to assist the subgrantee (Scott County) with developing/completing Local Hazard Mitigation Plans in accordance with the regulatory requirements established by FEMA for compliance with the Disaster Mitigation Act of 2000. Compliant plans shall be adopted by the applicable legal jurisdictions and shall be submitted to HSEMD. Final plans must be approved by HSEMD and FEMA 60 days prior to the end of the performance period of this agreement."

If not, will you be publishing notice of a public hearing before you vote to adopt any potential resolution regarding the Plan?

The Board will hold a public hearing to take comment on the Plan. Such a public hearing will meet all legal requirements for public notice prior to it being held.

Do you intend to incorporate the Haz Mit plan into the County's Comp Plan as Wayne Willey suggested?

If the Board wanted to include it as part of the Comprehensive Plan it would need to be submitted to the Planning and Zoning Commission for its review, comment and recommendation. The Commission would also hold a public hearing, before making a recommendation to the Board of Supervisors on the plan's inclusion in the Comprehensive Plan. In talking to Wayne Wille at the City of Davenport he stated that the Hazard Mitigation Plan the City of Davenport adopted was not a part of the city's 2025 Comprehensive Plan. His comment was related to if a Hazard Mitigation Plan was made part of a Comprehensive Plan it might give it a little more impetus and raise awareness of the contents of the plan.

Are you preparing to send in a Notice of Intent to FEMA in order to rec an application for a new grant?

As far as I know, no plans for future Hazard Mitigation Grants have been discussed, considered or approved by the Board.

Please let me know if you have any other questions.

Tim Huey

---- Forwarded Message -----

From: Todd McGreevy < todd.mcgreevy@gmail.com>

To: tasunder@yahoo.com

**Sent:** Thursday, September 22, 2011 3:06 PM **Subject:** Hazard Mitigation Plan Public Hearing?

Hello,

I attended the Monday night meeting in Eldridge where Tim Huey and three Bi State reps also attended to present a power point and had three copies of the draft for review.

There is video and excerpted transcript from the Q&A at www.ScottCountyIFA.com

It was stated that public commenting was over Oct 7.

I do not see a public hearing on the agenda for Sept 26th week of:

# http://www.scottcountyiowa.com/board/pub/agendas/2011/20110926 agenda.pdf

What are the intentions of this board regarding consideration of adopting the Hazard Mitigation Plan?

- a) Would you consider not moving the Plan forward to Iowa Homeland Security and then onto FEMA, in lieu of simply having the plan available to the public and P&Z for consideration?
- b) If not, will you be publishing notice of a public hearing before you vote to adopt any potential resolution regarding the Plan?
- c) Do you intend to incorporate the Haz Mit plan into the County's Comp Plan as Wayne Willey suggested?
- d) Are you preparing to send in a Notice of Intent to FEMA in order to rec an application for a new grant? If yes, what is the grant intended for and for what outcome?

Thank you for your attention to this important matter.

Sincerely, Todd McGreevy

Todd McGreevy
Publisher / River Cities' Reader
President / AdMospheres Media & Marketing
532 W 3rd Street
Davenport, IA 52801
todd@admospheres.com
563.322.4864 Office
563.323.3101 FAX
563.650.0120 Direct

www.RiverCitiesReader.com www.AdMospheres.com www.QCAdvertising.com

-----

http://www.rcreader.com/commentary/is-your-government-your-servant-or-your-master/

http://articlesoffreedom.us/ThePlan.aspx#Iowa

Got Jury Duty? You Are the 4th Branch of Government. Don't Skip Your Jury Duty...Use It or Lose It!

Learn More: http://articlesoffreedom.us/TOC/Article7Juries.aspx





Serving local governments in Muscatine and Scott Counties, Iowa; Henry, Mercer and Rock Island Counties, Illinois.

OFFICERS: CHAIR Mike Freemire

VICE-CHAIR Danny McDaniel

> SECRETARY Dennis Pauley

TREASURER Carol Earnhardt

MUNICIPAL REPRESENTATIVES:

City of Davenport Bill Gluba, Mayor Jason Gordon, Alderman Gene Meeker, Alderman Hap Volz, Citizen

City of Rock Island Dennis Pauley, Mayor Chuck Austin, Alderman

City of Moline Don Welvaert, Mayor Sean Liddell, Alderman

City of Bettendorf Mike Freemire, Mayor

City of East Moline John Thodos, Mayor

City of Muscatine Dick O'Brien, Mayor

City of Kewanee
Bruce Tossell, Mayor

City of Silvis; Villages of Andalusia, Carbon Cliff, Coal Valley, Cordova, Hampton, Hillsdale, Milan, Oak Grove, Port Byron, and Rapids City Ken Williams, Mayor, Carbon Cliff

Cities of Aledo, Colona, Galva, Geneseo; Villages of Alpha, Andover, Alkinson, Cambridge, New Boston, Orion, Sherrard, Viola, Windsor, and Woodhull Danny McDaniel, Mayor, Colona

Cities of Blue Grass, Buffalo, Eldridge, Fruitland, LeClaire, Long Grove, McCausland, Princeton, Riverdale, Walcott, West Liberty, and Wilton Marty O'Boyle, Mayor, Eldridge

COUNTY REPRESENTATIVES:
Henry County
Tim Wells. Chair

Tim Wells, Chair Dennis Anderson, Member Vacant, Member

> Mercer County Maxine Henry, Chair

Muscatine County David Watkins, Chair Kas Kelly, Member

Rock Island County Jim Bohnsack, Chair Tom Rockwell, Member Vacant, Member Elizabeth Sherwin, Citizen

Scott County Tom Sunderbruch, Chair Carol Earnhardt, Member Larry Minard, Member Celia Rangel, Citizen

PROGRAM REPRESENTATIVES:

Cheryl Goodwin Ralph H. Heninger Nathaniel Lawrence Rick Schloemer Bill Stoermer Jim Tank Rory Washburn

Executive Director

Denise Bulat

## **MEMORANDUM**

TO:

Diane Holst

FROM:

Laura Berkley, Senior Planner

DATE:

October 27, 2011

RE:

Public Comments for the Scott County Multi-Jurisdictional

Hazard Mitigation Plan

Thank you for your comments on the Scott County Multi-Jurisdictional Hazard Mitigation Plan. The responses to your questions, provided by Scott County, are below in the bolded text after your questions.

Hello,

The following are my questions and comments relating the County acceptance of the Multi Jurisdictional Hazard Mitigation Plan.

Q: The draft states that the plan will be updated every five years, or the Plan may be updated earlier at the discretion of the Planning Committee, or in the event of a Presidential Disaster Declaration, which requires an update by regulation. Please explain what happens to the local plan in the event of a Disaster Declaration and what "update by regulation" means?

R: Federal Regulations require a Hazard Mitigation Plan be updated in the event of a Presidential Disaster Declaration to address any issues related to that particular disaster event. This would include, but not be limited to, measures to be adopted to minimize the effects of similar disaster events in the future, new technologies that may be available to address such hazards and any other pertinent information related to the disaster.

Q: Page 125 of Chapter 3, Assessing Vulnerability: Estimating Potential Losses. The plan states the total value of the 1% and 0.2% of the properties located in these area. The 70,436 square acres represent 23.5% of the County. In simple terms, what does 1% and .02% annual chance mean? Fifty year flood, one-hundred year flood? R: The terms 100 year flood event and 500 year flood event have at times led to confusion with the public that that is the frequency of the occurrence of those events rather than the likelihood. 1% is the likely chance of the 100 year event occurring and .02% is the likelihood of the 500 year event occurring.

Q: What are the number of acres and total value (land, swelling and building)





for all classification that actually sit "in" the floodplain? If the property sits in the floodplain, what is the % of annual chance given to that property?

R: This detail of analysis is not required to be included in the Plan and therefore there is no rationale for devoting the staff time needed to perform this analysis. We will inquire with the Scott County GIS Department to see what would be involved with generating these numbers.

Q: Is the total number of residential acres in the 3 levee inundation areas 6.2 acres with property value within the inundation area \$198,701?

R: No, the area is correct at 6.2 acres but the total property value is \$1,197,250.

Q: Chapter 4, Hazard Mitigation Objectives, Objective 1: "Develop and implement government administrative or regulatory actions or processes to influence the way land and buildings are developed and built." We were told repeatedly at the meetings that the purpose of putting the Hazard Mitigation Plan in place was so that the participating jurisdictions could get grants.

Why then is "to receive grants" not listed as an objective? Do you feel there is risk that following through with Objective 1 may affect private property owners and their property rights?

R: Objectives are generally specific actions in furtherance of the goals of the plan, while qualifying for hazard mitigation grants may be an expected outcome of adopting the plan (and indeed a prerequisite of such funding) it is not an "objective". The second part of your question is a subjective question and depends on an individual's point of view.

# Thank you for your comments and questions and they will be included in an appendix to the Plan

Chapter 4, Identification and Analysis of Mitigation Actions: "FEMA guidance for local hazard mitigation planning requires examining a comprehensive range of mitigation actions and projects for each hazard."

Running the "Actions" through the STAPLEE process does not remove the actions the committee identified from the plan. They are there for the record. FEMA is broke. You are sending a list of actions to FEMA that could turn into a mandate to control FEMA costs. A stroke of a pen could turn these "actions" into mandates.

FEMA dollars are the taxpayers dollars.

From Chapter 5, Incorporation Into Existing Planning Mechanisms, "Early in the planning process, participating jurisdictions were asked to list their own existing local planning mechanisms and ordinances to evaluate what was already in place to incorporate the requirements of the mitigation plan.

These lists are summarized in Chapter II of the Plan." What are the "requirements" of the mitigation plan? The Public has been lead to believe that the purpose of the hazard mitigation plan was to get grants.

Appendix, draft resolution - Just so it's understood that Scott County has no intention to cede authority to the State, the Federal Government or any agency of those bodies by adopting the Hazard Mitigation Plan, what harm to include language of that sort?

Appendix, Unincorporated Scott County, Action ID: 2.2, "Adopt and enforce current building codes". Please remove the word "Adopt". How can you state you will adopt codes (3 year International Code process) that you have not even seen.

Appendix, Unincorporated Scott County, Action ID: 2.3, "Encourage development where adequate facilities and infrastructure exists". This action has NOTHING to do with Hazard Mitigation. Urban development is NOT a hazard to mitigate. The county already addresses preserving prime farmland in its zoning ordinances. Please remove or explain its existence in the Plan.

Regards,

Diane Holst

APPENDIX II-5 2010 CENSUS DATA

#### 2010 Census Data

This plan utilized the newest census data that was available at the time complied. However, the 2010 Census data was released (February and May 2011) after the majority of the plan was written. It was decided not to include the 2010 Census data at this time. Table A-II-5 shows the populations for Scott County and all jurisdictions from 1950 - 2010.

Table A-II-5 Scott County Population 1950 - 2010

AREA	1950	1960	1970	1980	1990	2000	2010	% CHANGE 2000 -2010
SCOTT COUNTY	100,698	119,067	142,687	160,022	150,973*	158,689*	165,224	4.1%
City of Bettendorf	5,132	10,534	22,126	27,381	28,139*	31,258*	33,217	6.3%
City of Blue Grass	337	568	1,032	1,377	1,214	1,169	1,452	24.2%
City of Buffalo	695	1,088	1,513	1,441	1,250*	1,321	1,270	-3.9%
City of Davenport	74,549	88,981	98,469	103,264	95,333*	98,359	99,685	1.3%
City of Dixon	208	280	276	312	228*	276	247	-10.5%
City of Donahue	105	133	216	289	316	293	346	18.1%
City of Eldridge	376	583	1,535	3,279	3,378	4,159	5,651	35.9%
City of LeClaire	1,124	1,546	2,520	2,899	2,734	2,868*	3,765	31.3%
City of Long Grove	156	182	269	596	605	597	808	35.3%
City of Maysville	70	126	170	151	170	163	176	8.0%
City of McCausland	150	173	226	381	308	299	291	-2.7%
City of New Liberty	126	145	141	136	139	121	137	13.2%
City of Panorama Park	N/A	140	219	145	127	131*	129	-1.5%
City of Princeton	495	580	633	965	904*	946	886	-6.3%
City of Riverdale	N/A	477	684	462	419*	653*	405	-38.0%
City of Walcott	480	664	989	1,425	1,356	1,528	1,629	6.6%

Source: U.S. Census Bureau, Decennial Censuses 1950-2010

<sup>\*</sup> Indicates corrected count populations

		1.	TTT 4
Ap	pen	dix	III-1

Scott County Multi-Jurisdictional Hazard Mitigation Plan	Appendix III
APPENDIX III-1 INDIVIDUAL JURISDICTION HAZ	ZARD SCORES

#### Hazard Analysis and Risk Assessment Hazard Profile Scoring Summary Page

Jurisdiction: Bettendorf

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	4	Duration	2
Total:	11	Total:	8
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	13
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	1 4
Probability	1	Probability	1
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	3	Duration	2
Total:	11	Total:	9
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	2
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	3	Duration	3
Fotal:	10	Total:	12
		10. DROUGHT	
DAM ENITIDE			3
	1	Probability	)
Probability	1	Probability Magnitude/Soverity	
Probability  Magnitude/Severity	1 1	Magnitude/Severity	2
Probability  Magnitude/Severity  Warning Time	2	Magnitude/Severity Warning Time	2
Magnitude/Severity Warning Time Duration	2	Magnitude/Severity Warning Time Duration	2 1 4
Probability  Magnitude/Severity  Warning Time	2	Magnitude/Severity Warning Time	2
Probability  Magnitude/Severity  Warning Time  Duration	2	Magnitude/Severity Warning Time Duration	2 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:	2	Magnitude/Severity Warning Time Duration Total:	2 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	2 2 6	Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	2 1 4 10
Probability Magnitude/Severity Warning Time Duration  Total:  L1. EARTHQUAKE Probability	2 2 6	Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	2 1 4 10
Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability  Magnitude/Severity	2 2 6	Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	2 1 4 10

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
	4		1
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration Total:	11	Duration Total:	1
Total:	11	iotai:	4
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	3	Probability	Δ
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	3	Duration	2
Total:	8	Total:	11
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	3
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	2	Duration	3
Total:	9	Total:	13
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	3	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration	1	Duration	2
Total:	10	Total:	11
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	2
	1 4		1
Magnitude/Severity Warning Time Duration	1 4 2	Magnitude/Severity Warning Time Duration	1 4
Warning Time	1 4 2 11	Warning Time	1 4 9
Warning Time Duration		Warning Time Duration Total:	
Warning Time Duration		Warning Time Duration	
Warning Time  Duration  Total:		Warning Time Duration Total:  24. LEVEE FAILURE Probability	
Warning Time Duration Total: 23. LANDSLIDE		Warning Time Duration Total:  24. LEVEE FAILURE	
Warning Time Duration Total:  23. LANDSLIDE Probability		Warning Time Duration Total:  24. LEVEE FAILURE Probability	1
Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	1 3 3
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:		Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration  Total:	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	1 3 3 4
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time Duration	11 1 1 4 1 7	Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 3 3 4 11 1 1 4 2
Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time		Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 3 3 4 11 1 1 4

Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	1	Duration	4
Total:	7	Total:	13
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	
Probability	3	Probability	3
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	4
Total:	10	Total:	10
24 CEVERE WINTER CTORM		22 CINICIOLES	
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	3	Probability	1
Magnitude/Severity		Magnitude/Severity	1
Warning Time	2	Warning Time	3
Duration Table	3	Duration	1
Total:	10	Total:	6
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	4	Duration	2
Total:	11	Total:	12
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	3	Warning Time	4
Duration	1	Duration	
Total:	10	Total:	10
37. TRANSPORTATION HAZARDOUS MATERIALS	INCIDENT	38. TRANSPORTATION RADIOLOGICAL	L MATERIALS INCIDENT
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	1	Duration	3
Total:	10	Total:	10
39. WATERWAY INCIDENT	<del></del>	40. WINDSTORM	1
Probability	4	Probability	3
	1	Magnitude/Severity	2
Magnitude/Severity	-	iriabilitade/ severity	
Magnitude/Severity Warning Time	А	Warning Time	ર
Magnitude/Severity  Warning Time  Duration	4	Warning Time Duration	3

## **Hazard Analysis and Risk Assessment**

**Hazard Profile Scoring Summary Page** 

Jurisdiction: City of Blue Grass

AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	2	Duration	
Total:	5	Total:	
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	2	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	4	Duration	
otal:	9	Total:	
S. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	4	Probability	
Magnitude/Severity	4	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	4	Duration	
Total:	13	Total:	
		8. CYBER TERRORISM	
Probability	1	Probability	
Probability  Magnitude/Severity	1 1	Probability  Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time	1 1 4	Probability  Magnitude/Severity  Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 4 1	Probability  Magnitude/Severity  Warning Time  Duration	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 4 1 7	Probability  Magnitude/Severity  Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 4 1 7	Probability  Magnitude/Severity  Warning Time  Duration  Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT	
Probability  Magnitude/Severity  Warning Time  Duration  Fotal:  D. DAM FAILURE  Probability	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity	1 1 4 1 7	Probability  Magnitude/Severity  Warning Time  Duration  Total:  10. DROUGHT  Probability  Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Fotal:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	
Probability Magnitude/Severity Warning Time Duration Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	
Probability Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  L1. EARTHQUAKE Probability Magnitude/Severity Magnitude/Severity	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability	1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	

13 ENERGY FAILURE		14 EVDANCIVE COLLC	
13. ENERGY FAILURE		14. EXPANSIVE SOILS	1
Probability	3	Probability	1
Magnitude/Severity		Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	4	Duration Table	1
Total:	10	Total:	/
15. EXTREME HEAT		16 FIVED HAZARDOHS MATERIALS	
	2	16. FIXED HAZARDOUS MATERIALS	ว
Probability	2	Probability	2
Magnitude/Severity		Magnitude/Severity	2
Warning Time	1	Warning Time	1
Duration Total:	3	Duration Total:	3 8
Total.	٥	Total:	٥
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	2
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	1	Warning Time	1
Duration	3	Duration	3
Total:	7	Total:	8
			,
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	3	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	4
Total:	11	Total:	14
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
		22. HUIVIAN DISEASE INCIDENT	
Probability	4	Probability	2
	4		2
Probability	4 4 4	Probability	2 2 1
Probability  Magnitude/Severity	4 4 3	Probability  Magnitude/Severity	2 2 1 4
Probability  Magnitude/Severity  Warning Time	4 4 4 3 15	Probability  Magnitude/Severity  Warning Time	2 2 1 4 9
Probability  Magnitude/Severity  Warning Time  Duration  Total:		Probability  Magnitude/Severity  Warning Time  Duration  Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity  Warning Time		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity  Warning Time  Duration  Total:		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT	
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  25. PANDEMIC HUMAN DISEASE  Probability  Magnitude/Severity		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity	1 1 4 1 7
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 1 4 1 7
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time Duration	15 1 1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 1 4 1 7
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time		Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 1 4 1 7

<u></u>			
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	1	Duration	1
Total:	7	Total:	7
20. DAILWAY TRANSPORTATION INSIDENT		20 DIVED SLOODING	
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	1 1
Probability		Probability	1
Magnitude/Severity		Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration		Duration	4
Total:	/	Total:	/
31. SEVERE WINTER STORM	$\neg$	32. SINKHOLES	
Probability	4	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	3
Total:	10	Total:	9
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	2
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	1	Duration	3
Total:	7	Total:	11
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability .	3
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	_1	Warning Time	4
Duration	3	Duration	4
Total:	10	Total:	13
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	$\overline{}$	38. TRANSPORTATION RADIOLOGICAL MA	TEDIALS INCIDENT
	2		3
Probability  Magnitude/Severity	3	Probability  Magnitude/Severity	3
	4		3
Warning Time	2	Warning Time	
Duration  Total:	12	Duration  Total:	14
iotai:	12	iotai:	14
39. WATERWAY INCIDENT	$\neg$	40. WINDSTORM	
Probability	1	Probability	4
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	4
Total:	7	Total:	11
1 O SULL	,	Total.	11

#### **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: BUFFALO

L. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
Total:	4	Total:	
			•
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
S. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
Total:	4	Total:	
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	ı
Probability	1	Probability	
Probability  Magnitude/Severity	1	Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time	1 1 1	Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1	Magnitude/Severity Warning Time Duration	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 1 4	Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:	
Probability Magnitude/Severity Warning Time Duration Total: D. DAM FAILURE	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT	
Probability Magnitude/Severity Warning Time Duration Total:  D. DAM FAILURE Probability	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  DAM FAILURE  Probability  Magnitude/Severity	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time  Duration  Fotal:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Fotal:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Fotal:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Fotal:	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Probability Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:	1 1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	
Probability Magnitude/Severity Warning Time Duration  Fotal:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Fotal:  L1. EARTHQUAKE Probability Magnitude/Severity Magnitude/Severity	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	

42 515007 54111105		44 EVRANCIVE COULC	1
13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	10	Total:	4
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	10	Total:	5
17. FIVED DADIOLOGICAL INCIDENT		18 FLACUELOOD	
17. FIXED RADIOLOGICAL INCIDENT	1	18. FLASH FLOOD	Α.
Probability Magnitude/Soverity	1	Probability Magnitude/Soverity	4
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	1	Duration	1
Total:	4	Total:	10
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	4	Probability	Δ
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	7	Total:	10
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	11	Total:	4
23. LANDSLIDE		24. LEVEE FAILURE	_
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	4
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	4
27. PUBLIC DISORDER		28. RADIOLOGICAL TERRORISM	

	_	
Probability	4 Probability	1
Magnitude/Severity	2 Magnitude/Severity	1
Warning Time	4 Warning Time	1
Duration	1 Duration	1
Total:	Total:	4
29. RAILWAY TRANSPORTATION INCIDENT	30. RIVER FLOODING	
Probability	4 Probability	3
Magnitude/Severity	2 Magnitude/Severity	3
Warning Time	4 Warning Time	2
Duration	1 Duration	3
	Total:	11
31. SEVERE WINTER STORM	32. SINKHOLES	
Probability	4 Probability	4
Magnitude/Severity	1 Magnitude/Severity	4
Warning Time	4 Warning Time	4
Duration	1 Duration	3
Total:	Total:	15
33. STRUCTURAL FAILURE	34. STRUCTURAL FIRE	
Probability	1 Probability	3
Magnitude/Severity	1 Magnitude/Severity	2
Warning Time	1 Warning Time	4
Duration	1 Duration	1
Total:	4 Total:	10
35. THUNDERSTORM AND LIGHTNING	36. TORNADO	
Probability	4 Probability	4
Magnitude/Severity	1 Magnitude/Severity	1
Warning Time	4 Warning Time	4
Duration	1 Duration	1
Total:	Total:	10
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL MATI	ERIALS INCIDENT
Probability	4 Probability	1
Magnitude/Severity	1 Magnitude/Severity	1
Warning Time	4 Warning Time	1
Duration	1 Duration	1
	0 Total:	4
39. WATERWAY INCIDENT	40. WINDSTORM	
Probability	4 Probability	4
Magnitude/Severity	1 Magnitude/Severity	1
Warning Time	4 Warning Time	4
Duration	1 Duration	1
Total:	0 Total:	10

# Hazard Analysis and Risk Assessment

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Davenport

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	4	Warning Time	1
Duration	3	Duration	3
Total:	10	Total:	8
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	7	Total:	11
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	4	Duration	3
Total:	11	Total:	9
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	2
		1 1 Obubinty	_
	1		2
Magnitude/Severity	1	Magnitude/Severity	2
Magnitude/Severity Warning Time	1 1	Magnitude/Severity Warning Time	4
Magnitude/Severity	1 1 1 1 4	Magnitude/Severity	
Magnitude/Severity Warning Time Duration	1 1 1 1 4	Magnitude/Severity Warning Time Duration	3
Magnitude/Severity Warning Time Duration	1 1 1 1 4	Magnitude/Severity Warning Time Duration	3
Magnitude/Severity Warning Time Duration Total:	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:	3
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT	4 3 11
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability	1 1 1 1 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability	1 1 1
Magnitude/Severity Warning Time Duration  Total:  9. DAM FAILURE Probability Magnitude/Severity	1 1 1 4 4	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	1 1 1 1 4
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time	1 1 1 4 4 1 1 1 1 3 1 6	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	1 1 1 1
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	1 1 1 1 4
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration Total:  11. EARTHQUAKE	1	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	1 1 1 1 4 7
Magnitude/Severity Warning Time Duration  Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  11. EARTHQUAKE Probability	1	Magnitude/Severity Warning Time Duration  Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration  Total:  12. ENEMY ATTACK Probability	1 1 1 1 4 7
Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration Total:  11. EARTHQUAKE Probability Magnitude/Severity	1	Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	1 1 1 1 4 7
Magnitude/Severity Warning Time Duration  Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  11. EARTHQUAKE Probability	1 6	Magnitude/Severity Warning Time Duration  Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration  Total:  12. ENEMY ATTACK Probability	1 1 1 1 4 7

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
	1		1
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration Tabel	3 10	Duration	3
Total:	10	Total:	ь
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	1
Probability	2	Probability	3
·	2		3
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	1	Warning Time	·
Duration  Total:	3	Duration Total:	3 12
Total.	٥	iotai.	12
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	3
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	2	Warning Time	4
Duration	3	Duration	2
Total:	9	Total:	11
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	1	Probability	3
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	3
Duration	2	Duration	1
Total:	8	Total:	8
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
	3	Probability	1
Probability		Fiobability	
Probability  Magnitude/Severity	1	Magnitude/Severity	2
Magnitude/Severity	1 4	Magnitude/Severity	2
,	1 4 2		2 3 4
Magnitude/Severity Warning Time	1 4 2 10	Magnitude/Severity Warning Time	J
Magnitude/Severity Warning Time Duration		Magnitude/Severity Warning Time Duration Total:	4
Magnitude/Severity Warning Time Duration		Magnitude/Severity Warning Time Duration	4
Magnitude/Severity Warning Time Duration Total:		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	4
Magnitude/Severity Warning Time Duration Total: 23. LANDSLIDE		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE	4
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	4
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity	4
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	1 1 1 1
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 1 1 3
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT	1 1 1 3
Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	1 1 1 3 3 6 E
Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity	1 1 1 3
Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	1 1 1 3 3 6 1 1 2 4 4
Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time Duration		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 1 1 3 3 6 E 2 4 4 2 2
Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time		Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 1 1 3 3 6 1 1 2 4 4

Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	3	Warning Time	4
Duration	1	Duration	3
Total:	6	Total:	11
29. RAILWAY TRANSPORTATION INCIDENT	_	30. RIVER FLOODING	
Probability	2	Probability	3
Magnitude/Severity	2		3
	4	Magnitude/Severity	3
Warning Time	3	Warning Time	1
Duration Total:	3 11	Duration Total:	4
Total:	11	Total:	11
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	3
Total:	9	Total:	9
			-
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	2
Total:	11	Total:	10
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	3	Warning Time	4
Duration	1	Duration	1
Total:	9	Total:	10
27 TRANSPORTATION HAZARDOUS MATERIALS INCIDENT		20 TRANSPORTATION RADIOLOGICAL A	AATERIAL CINCIDENT
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	2	38. TRANSPORTATION RADIOLOGICAL N	/IATERIALS INCIDENT
Probability  Magnitude/Squarity	2	Probability  Magnitude/Soverity	2
Magnitude/Severity	4	Magnitude/Severity	
Warning Time	4	Warning Time	4
Duration Table	4	Duration	2
Total:	11	Total:	9
39. WATERWAY INCIDENT	$\overline{}$	40. WINDSTORM	
Probability	2	Probability	3
Magnitude/Severity	1	Magnitude/Severity	2
	3		4
Warning Time	2	Warning Time	1
Duration Total:	8	Duration Total:	10
Total.	0	Total.	10

#### **Hazard Analysis and Risk Assessment**

**Hazard Profile Scoring Summary Page** 

Jurisdiction: Dixon

L. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1		
Magnitude/Severity	1	Probability  Magnitude/Severity	
	1		
Warning Time	1	Warning Time	
Duration Total:	1	Duration Total:	+
otan.	-	Total.	
. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
. DAM FAILURE		10. DROUGHT	
	1	10. DROUGHT  Probability	
Probability	1 1	Probability	
Probability  Magnitude/Severity	1 1 1	Probability  Magnitude/Severity	
Magnitude/Severity Warning Time	1 1 1	Probability  Magnitude/Severity  Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 1	Probability  Magnitude/Severity  Warning Time  Duration	
Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 1 4	Probability  Magnitude/Severity  Warning Time	
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 1 1 4	Probability  Magnitude/Severity  Warning Time  Duration	
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 1 1 1 4	Probability  Magnitude/Severity  Warning Time  Duration  Total:	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	1 1 1 1 4	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	
Probability Magnitude/Severity Warning Time Duration  Total:  L1. EARTHQUAKE Probability	1 1 1 1 4	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  L1. EARTHQUAKE  Probability  Magnitude/Severity	1 1 1 1 4	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	4
15. EXTREME HEAT	1	16. FIXED HAZARDOUS MATERIALS	
Probability	1	Probability	+
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	$\frac{1}{4}$
Total:	4	Total:	4
17 FIVED DADIOLOGICAL INCIDENT		18. FLASH FLOOD	-
17. FIXED RADIOLOGICAL INCIDENT  Drobability	1		1
Probability Magnitude/Severity	1	Probability Magnitude/Severity	1
Magnitude/Severity	1	Magnitude/Severity	+ 1
Warning Time	1	Warning Time	+ 1
Duration Total:	1	Duration Total:	+ + 1
Total.	4	Total.	4
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	· ·
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	+ 1
Duration	1	Duration	+ 1
Total:	4	Total:	4
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	4
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	4
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	1	Duration	1
Total:	4	Total:	7
27. PUBLIC DISORDER		28. RADIOLOGICAL TERRORISM	

	<u></u>	
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 1	Duration	1
Total: 4	Total:	4
29. RAILWAY TRANSPORTATION INCIDENT	30. RIVER FLOODING	
Probability 1	Probability	1
		1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 1 Total: 4	Duration Total:	1
Total. 4	Total.	4
31. SEVERE WINTER STORM	32. SINKHOLES	
Probability 3	Probability	1
Magnitude/Severity 1	, Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 2	Duration	1
Total: 7	Total:	4
	•	•
33. STRUCTURAL FAILURE	34. STRUCTURAL FIRE	
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	4
Duration 1	Duration	1
Total: 4	Total:	7
35. THUNDERSTORM AND LIGHTNING	36. TORNADO	I 4
Probability 1	Probability .	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	2
Duration 1	Duration	1
Total: 4	Total:	5
27 TRANSPORTATION HAZARDOUS MATERIALS INSIDENT	20. TRANSPORTATION PARIOLOGICAL MATERIA	ALC INCIDENT
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL MATERIA	ALS INCIDENT
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 1	Duration	$\frac{1}{2}$
Total: 4	Total:	4
20 WATERWAY INCIDENT	40 MINDSTORM	
39. WATERWAY INCIDENT	40. WINDSTORM	7
Probability 1	Probability	2
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 1	Duration	1
Total: 4	Total:	5

#### **Hazard Analysis and Risk Assessment**

**Hazard Profile Scoring Summary Page** 

**Jurisdiction: Donahue** 

L. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	4	Duration	
otal:	10	Total:	
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	ı
Probability	2	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	4	Duration	
otal:	9	Total:	
. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	3	Duration	
Total:	10	Total:	
Probability	4	Probability	
Probability	1		
Magnitude/Severity	2	Magnitude/Severity	
·	2 4	Magnitude/Severity Warning Time	
Magnitude/Severity	2 4 4		
Magnitude/Severity Warning Time Duration	2 4 4 11	Warning Time	
Magnitude/Severity Warning Time Duration Total:	2 4 4 11	Warning Time Duration Total:	
Magnitude/Severity Warning Time Duration Total: D. DAM FAILURE	1 2 4 4 11	Warning Time Duration Total:  10. DROUGHT	
Magnitude/Severity Warning Time Duration Total: DAM FAILURE Probability	1 2 4 4 11 11	Warning Time Duration Total:  10. DROUGHT Probability	
Magnitude/Severity Warning Time Duration Total: D. DAM FAILURE Probability Magnitude/Severity	1	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time	1 2 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Magnitude/Severity Warning Time Duration  Fotal:  D. DAM FAILURE Probability Magnitude/Severity	1 2	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	
Magnitude/Severity Warning Time Duration Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration	1 2 4 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:	1 2 4 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:	1 2 4 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  1. EARTHQUAKE	1 2 4 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	
Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Puration  Total:	1 2 4 4	Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	
Magnitude/Severity Warning Time Duration  Fotal:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Fotal:  L1. EARTHQUAKE Probability Magnitude/Severity	1 2 4 4	Warning Time Duration  Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration  Total:  12. ENEMY ATTACK Probability Magnitude/Severity	

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	3	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	3	Warning Time	4
Duration	3	Duration	1
Total:	11	Total:	7
15. EXTREME HEAT	_	16. FIXED HAZARDOUS MATERIALS	_
Probability	2	Probability	1
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	2	Warning Time	4
Duration	4	Duration	3
Total:	10	Total:	10
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	$\frac{1}{2}$	Probability	2
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	3	Warning Time	4
Duration	3	Duration	3
Total:	9	Total:	11
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	4	Probability	2
Magnitude/Severity	7	Magnitude/Severity	2
iviagilitude/ Severity		I Magnitude/ Seventy	<u> </u>
	4		1
Warning Time	4	Warning Time	4
	4 1 11		4 1 9
Warning Time Duration	4 1 11	Warning Time Duration	1
Warning Time Duration	4 1 11	Warning Time Duration	1
Warning Time  Duration  Total:	4 1 11 2	Warning Time Duration Total:	1
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT	4 1 11 2 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT	1
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability	2 2 2 4	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability	1
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity	2 2 2 4 1	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity	1
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	2 2 4	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time	1 9 1 1 1 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:	1 9 1 1 1 4 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE	2 2 4 1	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE	1 9 1 1 1 4 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability	2 2 4 1	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	1 9 1 1 1 4 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Magnitude/Severity	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time	2 2 4 1	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time	2 2 4 1	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 9 1 1 4 4 10
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	1 1 1 4 1 1 1 1 4 1 1 1 1 1 1 1 1 1 1 1
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Magnitude/Severity	1 1 4 4 10 T 1 2
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity	2 2 4 1	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Magnitude/Severity	1 1 4 4 10 T 1 2

Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	1	Duration	4
Total:	7	Total:	10
20 DAILWAY TRANSPORTATION INCIDENT		20 DIVER FLOODING	
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	3
Probability  No criticals (Councillate	2	Probability	2
Magnitude/Severity		Magnitude/Severity	
Warning Time	2	Warning Time	1
Duration Total:	3 11	Duration Total:	3
Total.	11	Total.	<u> </u>
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	3	Probability	1
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	3	Warning Time	4
Duration	3	Duration	3
Total:	11	Total:	10
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	3
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	4	Duration	1
Total:	10	Total:	9
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	1	Probability	2
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	3
Total:	12	Total:	11
	12	i otto.	
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDEN	Т	38. TRANSPORTATION RADIOLOGICAL MATE	RIALS INCIDENT
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	2	Duration	3
Total:	8	Total:	9
39. WATERWAY INCIDENT		40. WINDSTORM	
Probability	1	Probability	3
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	2
Duration			

#### **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Eldridge

Jurisdiction: Eldridge			
1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	2	Probability	2
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	2	Duration	2
Total:	10	Total:	<u>(</u>
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	_
Probability	3	Probability	
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	10	Total:	12
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	3	Probability	2
Magnitude/Severity	3	Magnitude/Severity	1
Warning Time	4	Warning Time	
	4	Duration	3
Duration Total:	14	Total:	
Total.	17	Total.	
7. CONVENTIONAL TERRORISM	1	8. CYBER TERRORISM	
Probability	2	Probability	1
Magnitude/Severity	2	Magnitude/Severity	í
Warning Time	4	Warning Time	4
Duration	3	Duration	2
Total:	11	Total:	8
9. DAM FAILURE	1	10. DROUGHT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	4
Total:	4	Total:	10
11. EARTHQUAKE		12. ENEMY ATTACK	
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	-
Duration	1	Duration	
Total:	9	Total:	10

40 505000 540 005		AA EVPANONE COUC	
13. ENERGY FAILURE		14. EXPANSIVE SOILS	2
Probability	4	Probability	2
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	2	Duration	1
Total:	12	Total:	5
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	3
Total:	9	Total:	10
47 FIVED DADIOLOGICAL INCIDENT		40 FLACUELOOD	
17. FIXED RADIOLOGICAL INCIDENT	1	18. FLASH FLOOD	
Probability	1	Probability  Magnitude (Caussity)	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	
Duration	1	Duration	1
Total:	4	Total:	Ь
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	2	Probability	1
	1		1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration Total:	1	Duration Total:	10
Total.	٥	iotai.	10
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	2	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
·	1		1
Warning Time  Duration	2	Warning Time  Duration	2
Total:	9	Total:	5
	3	.ou	3
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	
Duration	1	Duration	
Total:	4	Total:	4
			•
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	6	Total:	11
	,		
27. PUBLIC DISORDER		28. RADIOLOGICAL TERRORISM	
		•	

Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	1
Total:	4	Total:	2
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	
Probability	1	Probability	1 1
	1	Magnitude/Severity	1
Magnitude/Severity Warning Time	1	Warning Time	1
	2		1
Duration Total:	8	Duration Total:	
Total.	U	Total.	
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	3	Duration	1
Total:	9	Total:	4
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	_
Probability	1	Probability	
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	1	Warning Time	
Duration	3	Duration	2
Total:	7	Total:	11
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability	] 3
	1		2
Magnitude/Severity	1	Magnitude/Severity	
Warning Time  Duration	1	Warning Time  Duration	3
Total:	10	Total:	12
	10		
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT		38. TRANSPORTATION RADIOLOGICAL MATERI	ALS INCIDENT
Probability	2	Probability	2
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	
Duration	2	Duration	
Total:	9	Total:	12
<u></u>			
39. WATERWAY INCIDENT		40. WINDSTORM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	
Duration	1	Duration	2
Total:	4	Total:	12

## Hazard Analysis and Risk Assessment

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: LeClaire

. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	3	Duration	
otal:	9	Total:	
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	4	Duration	
otal:	7	Total:	
. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
	1		
Warning Time  Duration	2	Warning Time  Duration	
otal:	9	Total:	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
-	1	Duration	
		Duration	
Duration (otal:	13	Total:	
	13	Total:	
otal:	13	Total:  10. DROUGHT	
otal:	13		
otal: D. DAM FAILURE	13	10. DROUGHT	
O. DAM FAILURE  Probability	1	10. DROUGHT  Probability	
Probability Magnitude/Severity	1 2	10. DROUGHT  Probability  Magnitude/Severity	
Probability Magnitude/Severity Warning Time	1 2	10. DROUGHT  Probability  Magnitude/Severity  Warning Time	
Probability Magnitude/Severity Warning Time Duration	1 2 1 4	10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration	
Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  1. EARTHQUAKE	1 2 1 4	10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration	
Probability Magnitude/Severity Warning Time Duration Total:  1. EARTHQUAKE Probability	1 2 1 4	10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability	
O. DAM FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 2 1 4	10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Probability Magnitude/Severity Warning Time Duration Fotal:  L1. EARTHQUAKE Probability	1 2 1 4	10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability	
Probability Magnitude/Severity Warning Time Duration  Total:  L1. EARTHQUAKE Probability Magnitude/Severity	1 2 1 4 8	10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability  Magnitude/Severity	

12 ENERGY FAILURE		14. EXPANSIVE SOILS	
13. ENERGY FAILURE	2		1
Probability Magnitude/Coverity	2	Probability Magnitude/Soverity	1
Magnitude/Severity	4	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration  Total:	3	Duration Total:	7
Total:	11	Total:	/
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	1
Probability	2	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	3	Duration	3
Total:	8	Total:	9
1000.	J	Total	
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	2
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	3	Duration	1
Total:	10	Total:	8
	-		
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	2	Probability	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	2	Duration	1
Total:	9	Total:	8
			_
			-
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
	3		1
21. HIGHWAY TRANSPORTATION INCIDENT	3	22. HUMAN DISEASE INCIDENT	1 1
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity	3 1 4	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity	1 1
21. HIGHWAY TRANSPORTATION INCIDENT Probability	3 1 4 2	22. HUMAN DISEASE INCIDENT Probability	1 1 1 1 3
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 4	22. HUMAN DISEASE INCIDENT  Probability  Magnitude/Severity  Warning Time	1 1 1 3 6
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 4 2	22. HUMAN DISEASE INCIDENT  Probability  Magnitude/Severity  Warning Time  Duration	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity	
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	1 1 1 4
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 1 4 4
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	1 1 4 4
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 1 4 4
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 1 4 4
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	1 1 4 4 10
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity	1 4 2	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	1 1 4 4 10
21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time	1 4 2 10 1 1 4 2 8	22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 1 4 4 10 10 1 2 4

Probability	1 Probability	1
Magnitude/Severity	1 Magnitude/Severity	1
Warning Time	4 Warning Time	4
Duration	2 Duration	3
Total:	8 Total:	9
29. RAILWAY TRANSPORTATION INCIDENT	30. RIVER FLOODING	
Probability	1 Probability	2
	1 Magnitude/Severity	1
Magnitude/Severity		1
Warning Time	4 Warning Time	3
Duration Total:	Duration  Total:	7
Total.	Journal Control of the Control of th	,
31. SEVERE WINTER STORM	32. SINKHOLES	
Probability	3 Probability	1
Magnitude/Severity	2 Magnitude/Severity	1
Warning Time	2 Warning Time	4
Duration	3 Duration	4
Total:	10 Total:	10
	_	
33. STRUCTURAL FAILURE	34. STRUCTURAL FIRE	
Probability	1 Probability	2
Magnitude/Severity	1 Magnitude/Severity	4
Warning Time	4 Warning Time	4
Duration	3 Duration	4
Total:	9 Total:	14
35. THUNDERSTORM AND LIGHTNING	36. TORNADO	1 2
Probability	Probability	2
Magnitude/Severity	1 Magnitude/Severity	2
Warning Time	4 Warning Time	4
Duration Tatal	Duration  Total:	9
Total:	9 Total:	9
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	38. TRANSPORTATION RADIOLOGIC	'AL MATERIALS INCIDENT
Probability	1 Probability	1
Magnitude/Severity	1 Magnitude/Severity	1
Warning Time	4 Warning Time	4
Duration	2 Duration	3
Total:	8 Total:	9
10001	iotai.	9
39. WATERWAY INCIDENT	40. WINDSTORM	
Probability	1 Probability	3
Magnitude/Severity	1 Magnitude/Severity	2
Warning Time	4 Warning Time	4
Duration	3 Duration	2
		i -

#### **Hazard Analysis and Risk Assessment**

**Hazard Profile Scoring Summary Page** 

**Jurisdiction: Long Grove** 

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	4	Duration	1
Total:	7	Total:	8
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	1 -
Probability	2	Probability	2
Magnitude/Severity	2	Magnitude/Severity	3
Warning Time	1	Warning Time	3
Duration	4	Duration	4
Total:	9	Total:	12
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	2	Probability	2
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	3	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	13
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	3	Duration	2
Total:	9	Total:	9
9. DAM FAILURE		10. DROUGHT	
	1		2
Probability	1	Probability	2
Managh, da /Carragh,		Magnitude/Severity	_
Magnitude/Severity	1		1
Warning Time	4	Warning Time	1
Warning Time Duration	4	Duration	4
Warning Time			
Warning Time Duration	4	Duration	4
Warning Time  Duration  Total:	4	Duration Total:	4
Warning Time Duration Total:  11. EARTHQUAKE Probability	4	Duration Total:  12. ENEMY ATTACK Probability	9
Warning Time Duration Total:  11. EARTHQUAKE Probability Magnitude/Severity	4	Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	1 1
Warning Time Duration Total:  11. EARTHQUAKE Probability	1 2	Duration Total:  12. ENEMY ATTACK Probability	1

2	14. EXPANSIVE SOILS	1
3	Probability	1
	Magnitude/Severity	1
4		2
_		3
12	Total:	/
	1C FIVED HAZADDONG MATERIALS	
		1
	·	1
		1
1		4
3		9
٥	Total.	9
	18. FLASH FLOOD	
1		1
2		2
<u>-</u>		1
<u>J</u>		2
10		6
10		
	20. HAILSTORM	
2		2
1		2
4		4
1		1
8	Total:	9
	22. HUMAN DISEASE INCIDENT	
2	Probability	1
1	Magnitude/Severity	1
4	Warning Time	1
2	Duration	4
9	Total:	7
1	Probability	1
1		1
1	Warning Time	1
3	Duration	3
6	Total:	6
	OC DIDELING TO ANGROSTATION INCOME.	
		1 3
	Probability	2
11	Magnitude/Severity	2
	—	
1	Warning Time	4
1 4	Duration	3
1 4 7		
	2 2 2 1 3 8 12 2 1 2 3 4 10 2 1 4 10 8	Warning Time Duration  Total:  16. FIXED HAZARDOUS MATERIALS Probability Magnitude/Severity Warning Time Duration Total:  18. FLASH FLOOD Probability Magnitude/Severity Warning Time Duration Total:  20. HAILSTORM Probability Magnitude/Severity Warning Time Duration Total:  21. HAILSTORM Probability Magnitude/Severity Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:

	_	
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 4	Warning Time	4
Duration 2	Duration	4
Total: 8	Total:	10
29. RAILWAY TRANSPORTATION INCIDENT	30. RIVER FLOODING	
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 1	Duration	1
Total: 4	Total:	4
	•	•
31. SEVERE WINTER STORM	32. SINKHOLES	
Probability 3	Probability	1
Magnitude/Severity 3	Magnitude/Severity	1
Warning Time 1	Warning Time	1
Duration 3	Duration	1
Total: 10	Total:	4
33. STRUCTURAL FAILURE	34. STRUCTURAL FIRE	1 -
Probability 2	Probability	2
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 4	Warning Time	4
Duration 1	Duration	2
Total: 8	Total:	9
35. THUNDERSTORM AND LIGHTNING	36. TORNADO	
Probability 3	Probability	3
Magnitude/Severity 2	Magnitude/Severity	3
Warning Time 1	Warning Time	1
	Duration	3
Duration 3 Total: 9	Total:	10
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL MATER	RIALS INCIDENT
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 4	Warning Time	4
Duration 1	Duration	1
Total: 7	Total:	7
39. WATERWAY INCIDENT	40. WINDSTORM	
Probability 2	Probability	3
Magnitude/Severity 1	Magnitude/Severity	3
Warning Time 2	Warning Time	1
Duration 3	Duration	3
Total: 8	Total:	10

#### **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Maysville

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	3	Duration	2
Total:	9	Total:	8
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	4	Duration	3
Total:	10	Total:	9
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	•
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	2	Duration	4
Total:	8	Total:	10
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
	1		1
Probability	1	Probability	1
Probability  Magnitude/Severity	1	Probability  Magnitude/Severity	1
Probability  Magnitude/Severity  Warning Time	1 1 4	Probability  Magnitude/Severity  Warning Time	1 4
Probability  Magnitude/Severity  Warning Time  Duration	1	Probability  Magnitude/Severity  Warning Time  Duration	1 4 4
Probability  Magnitude/Severity  Warning Time	1	Probability  Magnitude/Severity  Warning Time	1 4
Probability  Magnitude/Severity  Warning Time  Duration	1	Probability  Magnitude/Severity  Warning Time  Duration	1 4 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1	Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 4 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:	1 4 4 10
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability	1 4 4 10
Probability Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	1 4 4 10
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	1 4 4 10 1 1 1 4
Probability Magnitude/Severity Warning Time Duration Total:  9. DAM FAILURE Probability Magnitude/Severity Warning Time Duration	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	1 4 4 10 11 1 4 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	1 4 4 10 11 1 4 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 4 1 7	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	1 4 4 10 11 1 4 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	1 1 7 1 1 1 1 4	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	1 4 4 10 11 1 4 4 10
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability	1 4 1 7	Probability  Magnitude/Severity  Warning Time  Duration  Total:  10. DROUGHT  Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability	1 4 10 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability  Magnitude/Severity	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	1 4 4 10 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1

12 ENERGY FAILURE		14 EVDANCIVE COULC	
13. ENERGY FAILURE	1	14. EXPANSIVE SOILS	1
Probability  Magnitude/Soverity	1	Probability Magnitude/Soverity	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration Total:	3	Duration Total:	1 7
Total:	9	Total.	/
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	3	Duration	3
Total:	9	Total:	9
			•
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	7	Total:	4
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	2	Probability	1
Magnitudo/Covority	1		4
Magnitude/Severity	<b>1</b>	Magnitude/Severity	1
Warning Time	4	Magnitude/Severity Warning Time	4
	4 3		4
Warning Time	3 10	Warning Time	1 4 1 7
Warning Time  Duration  Total:	_	Warning Time Duration Total:	1 4 1 7
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT	_	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT	1 4 1 7
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability	_	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability	1 1 7
Warning Time Duration Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity	_	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity	1 4 1 7
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	10 11 3 4	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time	1 4 1 7
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration	1 4 1 7
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	10 11 3 4	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time	1 4 1 7
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Visual Control Cont	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Duration	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Varning Time Warning Time	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Magnitude/Severity Magnitude/Severity	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Magnitude/Severity	1 1 1 1 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time Warning Time Varning Time Varning Time Varning Time Varning Time Warning Time	10 10 3 4 2	Warning Time Duration  Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration	1 1 1 1 4
Warning Time Duration  Total:  21. HIGHWAY TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Magnitude/Severity	10 10 3 4 2	Warning Time Duration Total:  22. HUMAN DISEASE INCIDENT Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Magnitude/Severity	1 1 1 1 4

Des halk:lite.	4	Duckahilite	I
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	1	Duration	
otal:	/	Total:	
9. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
L. SEVERE WINTER STORM		32. SINKHOLES	
Probability	2	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	3	Duration	
otal:	8	Total:	
3. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1		
	1	Probability Magnitude (Squarity)	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration otal:	9	Duration Total:	
otu.	3	Totali	
5. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	2	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	1	Duration	
otal:	9	Total:	
7. TRANSPORTATION HAZARDOUS MATER	RIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL M	IATERIALS INCIDE
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	2	Duration	
otal:	8	Total:	
. WATERWAY INCIDENT		40 MINDSTORM	
9. WATERWAY INCIDENT		40. WINDSTORM	T
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	

#### **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: McCausland

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	4	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	1
Total:	13	Total:	9
4		4. BIOLOGICAL TERRORISM	
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	13
			•
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	<u> </u>
Probability	1	Probability	1
Magnitude/Severity	4	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	13	Total:	12
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	4	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	13	Total:	12
			l
		40 PROUGUE	
9. DAM FAILURE		10. DROUGHT	
9. DAM FAILURE Probability	1	Probability	3
	1 2		3
Probability  Magnitude/Severity	1 2 3	Probability	
Probability		Probability  Magnitude/Severity	3
Magnitude/Severity Warning Time	3	Probability  Magnitude/Severity  Warning Time	3 1
Probability  Magnitude/Severity  Warning Time  Duration	3	Probability  Magnitude/Severity  Warning Time  Duration	3 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:	3	Probability  Magnitude/Severity  Warning Time  Duration	3 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:	3 4	Probability Magnitude/Severity Warning Time Duration Total:	3 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	3 1 4 11
Probability Magnitude/Severity Warning Time Duration  Total:  11. EARTHQUAKE Probability	3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	3 1 4 11
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability  Magnitude/Severity	3 4 10	Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability  Magnitude/Severity	3 1 4 11 11

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	2	Probability	1
·	3		2
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	1	Warning Time	<del>-</del>
Duration Total:	9	Duration Total:	4
Total.	9	Total.	11
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	11	Total:	12
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	4
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	4	Warning Time	2
Duration	4	Duration	4
Total:	12	Total:	13
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	1
Probability	4	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration Total:	3	Duration Total:	10
Total.	13	Total.	10
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
, Magnitude/Severity	3	, Magnitude/Severity	4
Warning Time	4	Warning Time	3
Duration	1	Duration	4
Total:	12	Total:	12
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	2	Probability	2
Magnitude/Severity	2	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	14
3E DANIDENNIC HUMANN DICEACE		26 DIDELINE TO ANGRODIATION WOODS	
25. PANDEMIC HUMAN DISEASE	1	26. PIPELINE TRANSPORTATION INCIDENT	1 3
Probability	1	Probability	2
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	2	Warning Time	4
		Duration	4
Duration	3		
	9	Total:	14

Probability	2	Probability	1
Magnitude/Severity	2	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	1	Duration	4
Total:	9	Total:	13
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	_
Probability	2	Probability	4
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	4	Warning Time	1
Duration	4	Duration	4
Total:	13	Total:	13
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	9	Total:	12
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	•
Probability	3	Probability	4
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	2	Duration	4
Total:	10	Total:	15
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	1 4
Probability	4	Probability .	4
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	1	Warning Time	4
Duration	2	Duration	4
Total:	10	Total:	16
37. TRANSPORTATION HAZARDOUS MATERIALS INC	CIDENT	38. TRANSPORTATION RADIOLOGICAL N	AATERIAI C INCIDENT
	_		
Probability  Magnitude (Squarity)	3	Probability  Magnitude (Sevenity)	1
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration Tabel	4	Duration	4
Total:	14	Total:	13
39. WATERWAY INCIDENT		40. WINDSTORM	Ī
Probability	1	Probability	4
	2		3
Magnitude/Severity	3	Magnitude/Severity	
Warning Time	4	Warning Time	1
Duration Total:	12	Duration Total:	1 9
I Utai.	12	iotai.	9

## **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: New Liberty

Jurisdiction: New Liberty			
1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	2
Total:	8	Total:	9
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	12
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	1
Probability	1	Probability	1
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	3	Duration	3
Total:	11	Total:	10
		·	
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	1 .
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	2
Total:	9	Total:	9
9. DAM FAILURE		10. DROUGHT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	1
Duration	1	Duration	4
Total:	4	Total:	7
	7		
11. EARTHQUAKE		12. ENEMY ATTACK	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	4	Warning Time	3
- <b>J</b>	<u> </u>		
Duration	1	Duration	4

		44. 7/201/201/201/201/201/201/201/201/201/201	
13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	3	Warning Time	1
Duration	4	Duration	1
Total:	10	Total:	4
			-
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	1
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	2
Total:	9	Total:	8
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
	1		1
Probability Magnitude/Severity	7	Probability Magnitude/Severity	1
Magnitude/Severity	3	Magnitude/Severity	1
Warning Time	3	Warning Time	1
Duration Tabel	4	Duration	1
Total:	11	Total:	4
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	1	Probability	1
Magnitude/Severity		Magnitude/Severity	2
Warning Time	4	Warning Time	2
Duration	1	Duration	1
Total:	7	Total:	6
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	4
Total:	10	Total:	8
23. LANDSLIDE		24. LEVEE FAILURE	_
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	7	Total:	4
		26 212511115	
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	1	Warning Time	3
Duration	4	Duration	1
Total:	8	Total:	6
27. PUBLIC DISORDER		28. RADIOLOGICAL TERRORISM	
ETT SULIC DISCRULIN		20. KADIOLOGICAL ILKKONISIVI	

			<del></del>
Probability	_1	Probability	1
Magnitude/Severity	_1	Magnitude/Severity	3
Warning Time	3	Warning Time	4
Duration	1	Duration	4
Total:	6	Total:	12
20. DAILWAY TRANSPORTATION INCIDENT		20 DIVER FLOODING	
29. RAILWAY TRANSPORTATION INCIDENT	1	30. RIVER FLOODING	3
Probability  Many index (Second)	1	Probability	3
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration Tatal:	8	Duration Total	10
Total:	8	Total:	10
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	3	Warning Time	4
Duration	4	Duration	4
Total:	11	Total:	10
•			<u>'</u>
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	3
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	3	Duration	1
Total:	10	Total:	10
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability	2
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	2	Warning Time	3
Duration	2	Duration	1
Total:	10	Total:	8
	_		
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT		38. TRANSPORTATION RADIOLOGICAL N	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	3
Total:	8	Total:	10
20 WATERWAY INCIDENT	_	40. WINDSTORM	
39. WATERWAY INCIDENT	1		2
Probability Magnitude (Coverity)	1	Probability	
Magnitude/Severity		Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration		Duration	3
Total:	8	Total:	10

## **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Panorama Park

. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	2	Duration	
otal:	8	Total:	
. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	1	Warning Time	
Duration	1	Duration	
otal:	4	Total:	
. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	
	2	· · · · · · · · · · · · · · · · · · ·	
Magnitude/Severity	3	Magnitude/Severity	
Warning Time	2	Warning Time	
Duration Cotal:	11	Duration Total:	
Probability	1	Probability	
Probability	1	Probability	
Magnitude/Severity	) a	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	4 2	Duration	
Duration	2 4 2 9		
Duration otal:	2 4 2 9	Duration	
Duration otal:	2 4 2 9	Duration Total:	
Duration  Total:  D. DAM FAILURE	2 4 2 9	Duration Total:  10. DROUGHT	
Duration  Total:  D. DAM FAILURE  Probability	2 4 2 9	Duration Total:  10. DROUGHT Probability	
Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity	2 4 2 9	Duration Total:  10. DROUGHT Probability Magnitude/Severity	
Duration  Total:  D. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	1 1 1 1 4	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	
Duration  iotal:  DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  iotal:	1	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	
Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  1. EARTHQUAKE	1	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	
Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  1. EARTHQUAKE Probability	1	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	
Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity  Warning Time Duration  Total:	1	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	
Duration  Total:  D. DAM FAILURE Probability Magnitude/Severity Warning Time Duration  Total:  1. EARTHQUAKE Probability	1	Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	

I.aav			
13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	3	Warning Time	1
Duration	4	Duration	1
Total:	10	Total:	4
			-
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	1
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	2
Total:	9	Total:	8
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
	1		2
Probability  Magnitude/Soverity	1	Probability Magnitude/Soverity	2
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	3	Warning Time	3
Duration Table	4	Duration	2
Total:	11	Total:	9
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	2
Duration	1	Duration	1
Total:	7	Total:	6
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	4
Total:	10	Total:	8
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration	1	Duration	1
Total:	7	Total:	4
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	1	Warning Time	3
Duration	4	Duration	1
Total:	8	Total:	6
27. PUBLIC DISORDER		28. RADIOLOGICAL TERRORISM	

			<del></del>
Probability	_1	Probability	1
Magnitude/Severity	_1	Magnitude/Severity	3
Warning Time	3	Warning Time	4
Duration	1	Duration	4
Total:	6	Total:	12
20. DAILWAY TRANSPORTATION INCIDENT		20 DIVER FLOODING	
29. RAILWAY TRANSPORTATION INCIDENT	1	30. RIVER FLOODING	3
Probability  Many index (Second)	1	Probability	3
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration Tatal:	8	Duration Total	10
Total:	8	Total:	10
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	3	Warning Time	4
Duration	4	Duration	4
Total:	11	Total:	10
•			<u>'</u>
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	3
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	3	Duration	1
Total:	10	Total:	10
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability	2
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	2	Warning Time	3
Duration	2	Duration	1
Total:	10	Total:	8
	_		
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT		38. TRANSPORTATION RADIOLOGICAL N	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	3
Total:	8	Total:	10
20 WATERWAY INCIDENT	_	40. WINDSTORM	
39. WATERWAY INCIDENT	1		2
Probability Magnitude (Coverity)	1	Probability	
Magnitude/Severity		Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration		Duration	3
Total:	8	Total:	10

## **Hazard Analysis and Risk Assessment**

## **Hazard Profile Scoring Summary Page**

Jurisdiction: Princeton

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	4	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	1
Total:	13	Total:	9
4		4. BIOLOGICAL TERRORISM	
<b>4</b> Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	13
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	4	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	13	Total:	12
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
7. CONVENTIONAL TERRORISM Probability	1	8. CYBER TERRORISM Probability	1
	1 4		1 3
Probability	1 4 4	Probability	
Probability  Magnitude/Severity  Warning Time  Duration	1 4 4 4	Probability  Magnitude/Severity  Warning Time  Duration	3 4
Probability  Magnitude/Severity  Warning Time	1 4 4 4 13	Probability  Magnitude/Severity  Warning Time	3 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:	•	Probability  Magnitude/Severity  Warning Time  Duration  Total:	3 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE	13	Probability Magnitude/Severity Warning Time Duration Total:	3 4 4 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability	13	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability	3 4 4 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity	13	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity	3 4 4 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	13 1 1 2 2 3	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	3 4 4 12 4 3 1
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration	13 1 1 2 2 3 4	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration	3 4 4 12 4 3 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time	13 1 1 2 2 3	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time	3 4 4 12 4 3 1
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	13 1 1 2 2 3 4	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:	3 4 4 12 4 3 1 4
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	13 1 1 2 3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	3 4 4 12 4 3 1 4 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability	13 1 1 2 3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	3 4 4 12 4 3 1 1 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability  Magnitude/Severity	13 1 1 2 3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability Magnitude/Severity	3 4 4 12 4 3 1 4 12
Probability  Magnitude/Severity  Warning Time  Duration  Total:  9. DAM FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability	13 1 1 2 3 4 10	Probability Magnitude/Severity Warning Time Duration Total:  10. DROUGHT Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	3 4 4 12 4 3 1 1 12

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	2	Probability	1
·	3		2
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	1	Warning Time	<del>-</del>
Duration Total:	9	Duration Total:	4
Total.	9	Total.	11
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	11	Total:	12
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	4
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	4	Warning Time	2
Duration	4	Duration	4
Total:	12	Total:	13
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	1
Probability	4	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration Total:	3	Duration Total:	10
Total.	13	Total.	10
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
, Magnitude/Severity	3	, Magnitude/Severity	4
Warning Time	4	Warning Time	3
Duration	1	Duration	4
Total:	12	Total:	12
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	2	Probability	2
Magnitude/Severity	2	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	14
3E DANIDENNIC HUMANN DICEACE		26 DIDELINE TO ANGRODIATION WOODS	
25. PANDEMIC HUMAN DISEASE	1	26. PIPELINE TRANSPORTATION INCIDENT	1 3
Probability	1	Probability	2
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	2	Warning Time	4
		Duration	4
Duration	3		
	9	Total:	14

Probability	2	Probability	1
Magnitude/Severity	2	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	1	Duration	4
Total:	9	Total:	13
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	_
Probability	2	Probability	4
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	4	Warning Time	1
Duration	4	Duration	4
Total:	13	Total:	13
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	9	Total:	12
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	•
Probability	3	Probability	4
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	4	Warning Time	4
Duration	2	Duration	4
Total:	10	Total:	15
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	1 4
Probability	4	Probability .	4
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	1	Warning Time	4
Duration	2	Duration	4
Total:	10	Total:	16
37. TRANSPORTATION HAZARDOUS MATERIALS INC	CIDENT	38. TRANSPORTATION RADIOLOGICAL N	AATERIAI C INCIDENT
	_		
Probability  Magnitude (Squarity)	3	Probability  Magnitude (Sevenity)	1
Magnitude/Severity	3	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration Tabel	4	Duration	4
Total:	14	Total:	13
39. WATERWAY INCIDENT		40. WINDSTORM	Ī
Probability	1	Probability	4
	2		3
Magnitude/Severity	3	Magnitude/Severity	
Warning Time	4	Warning Time	1
Duration Total:	12	Duration Total:	1 9
I Utai.	12	iotai.	9

## **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Riverdale

1 Magnitude/Severity 1 Warning Time 4 Duration 7 Total:  4. BIOLOGICAL TERRORISM Probability Magnitude/Severity Warning Time Duration Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
1	
4 Duration Total:  4. BIOLOGICAL TERRORISM Probability Magnitude/Severity Warning Time Duration Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity Magnitude/Severity	
7  4. BIOLOGICAL TERRORISM  Probability  Magnitude/Severity  Warning Time  Duration  Total:  6. COMMUNICATIONS TERRORISM  Probability  Magnitude/Severity	
4. BIOLOGICAL TERRORISM  Probability  Magnitude/Severity  Warning Time  Duration  Total:  6. COMMUNICATIONS TERRORISM  Probability  Magnitude/Severity	
1 Probability 1 Magnitude/Severity 1 Warning Time 4 Duration 7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
1 Probability 1 Magnitude/Severity 1 Warning Time 4 Duration 7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
1 Magnitude/Severity 1 Warning Time 4 Duration 7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
1 Warning Time 4 Duration 7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
4 Duration 7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
7 Total:  6. COMMUNICATIONS TERRORISM Probability Magnitude/Severity	
1 Probability 4 Magnitude/Severity	
1 Probability 4 Magnitude/Severity	$\overline{+}$
4 Magnitude/Severity	
	+
4 Warning Time	+
1 Probability	
· · ·	
4 Warning Time	
4 Duration	
	+
Total:	
Total:	
13 Total:  10. DROUGHT	
13 Total:  10. DROUGHT  1 Probability	
13  Total:  10. DROUGHT  1 Probability  Magnitude/Severity	
13 Total:  10. DROUGHT  1 Probability	
	4 Duration Total:  8. CYBER TERRORISM Probability Magnitude/Severity

13. ENERGY FAILURE		14. EXPANSIVE SOILS	
Probability	1	Probability	
Magnitude/Severity	3	Magnitude/Severity	
Warning Time	<u>J</u>	Warning Time	,
Duration	3	Duration	
Total:	11	Total:	
		. Com.	
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	2	Probability	
Magnitude/Severity	3	Magnitude/Severity	
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	9	Total:	1:
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	3
Magnitude/Severity	4	Magnitude/Severity	2
Warning Time	4	Warning Time	3
Duration	4	Duration	3
Total:	13	Total:	1:
19. GRASS OR WILDLAND FIRE	4	20. HAILSTORM	<u> </u>
Probability	4	Probability	
Magnitude/Severity	1	Magnitude/Severity	-
Warning Time	4	Warning Time	4
Duration Total:	10	Duration Total:	10
iotai.	10	Total.	10
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	1	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	4	Warning Time	4
Duration	3	Duration	4
Total:	10	Total:	13
			•
23. LANDSLIDE		24. LEVEE FAILURE	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	4	Duration	4
Total:	10	Total:	10
	_		
25. PANDEMIC HUMAN DISEASE		26. PIPELINE TRANSPORTATION INCIDENT	
Probability	2	Probability	
Magnitude/Severity	4	Magnitude/Severity	
Warning Time	1	Warning Time	4
		··	
Duration Total:	4 11	Duration Total:	10

Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	4	Warning Time	4
Duration	1	Duration	4
Total:	7	Total:	13
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	
Probability	2	Probability	Δ
Magnitude/Severity	2	Magnitude/Severity	1
	4	Warning Time	1
Warning Time	2	-	1
Duration Total:	11	Duration Total:	13
Total:	11	Total:	13
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	1
Warning Time	1	Warning Time	4
Duration	3	Duration	4
Total:	11	Total:	10
			•
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	4
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	4	Duration	3
Total:	11	Total:	13
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	3	Warning Time	4
Duration	1	Duration	4
Total:	9	Total:	14
37. TRANSPORTATION HAZARDOUS MATERI	ALC INCIDENT	38. TRANSPORTATION RADIOLOGICAL	MATERIALS INCIDENT
Probability	ALS INCIDENT	Probability	1
Magnitude/Severity	2	Magnitude/Severity	3
	<u> </u>		4
Warning Time	4	Warning Time	4
Duration  Total:	11	Duration  Total:	12
Total:	11	Total:	12
39. WATERWAY INCIDENT		40. WINDSTORM	
	2	Probability	4
Probability			
Probability  Magnitude/Severity	2	Magnitude/Severity	2
Magnitude/Severity	2	Magnitude/Severity Warning Time	2
	2 4	Magnitude/Severity Warning Time Duration	3 2

# **Hazard Analysis and Risk Assessment**

#### **Hazard Profile Scoring Summary Page**

Jurisdiction: Walcott

1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	4	Duration	3
Total:	11	Total:	9
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	4
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	7	Total:	13
5. CHEMICAL TERRORISM		6. COMMUNICATIONS TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	Δ	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	4	Duration	3
Total:	13	Total:	10
		. Countries and the countries are considered as a second and the countries are considered as a second	
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	2
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	3	Duration	3
Total:	10	Total:	10
9. DAM FAILURE		10. DROUGHT	
	1	10. DROUGHT  Probability	2
Probability	1 1	Probability	2
Probability  Magnitude/Severity	1 1 1	Probability  Magnitude/Severity	1
Magnitude/Severity Warning Time	1 1 1 1	Probability  Magnitude/Severity  Warning Time	1 1
Probability  Magnitude/Severity  Warning Time  Duration	1 1 1 1 4	Probability  Magnitude/Severity  Warning Time  Duration	1
Probability  Magnitude/Severity  Warning Time  Duration	1	Probability  Magnitude/Severity  Warning Time	1 1 1
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1	Probability  Magnitude/Severity  Warning Time  Duration	1 1 1
Probability  Magnitude/Severity  Warning Time  Duration  Total:	1	Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 1 5
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE	1	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK	1 1 1 5
Probability Magnitude/Severity Warning Time Duration Total:  11. EARTHQUAKE Probability	1	Probability Magnitude/Severity Warning Time Duration Total:  12. ENEMY ATTACK Probability	1 1 1 5
Probability  Magnitude/Severity  Warning Time  Duration  Total:  11. EARTHQUAKE  Probability  Magnitude/Severity	1	Probability  Magnitude/Severity  Warning Time  Duration  Total:  12. ENEMY ATTACK  Probability  Magnitude/Severity	1 1 1 5

13 ENERGY FAILURE		14. EXPANSIVE SOILS	
13. ENERGY FAILURE	2		1
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration  Total:	3 11	Duration Total:	1
Total.	11	Total:	4
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	2	Probability	1
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	1	Warning Time	3
Duration	3	Duration	2
Total:	7	Total:	10
		· ottaii	
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	3
Duration	1	Duration	2
Total:	4	Total:	7
	<u> </u>		
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	4	Warning Time	4
Duration	1	Duration	1
Total:	7	Total:	7
	-		•
21. HIGHWAY TRANSPORTATION INCIDEN	т	22. HUMAN DISEASE INCIDENT	
21. HIGHWAY TRANSPORTATION INCIDEN Probability	T 3	22. HUMAN DISEASE INCIDENT Probability	1
			1 2
Probability Magnitude/Severity		Probability  Magnitude/Severity	1 2 1
Probability		Probability	1 2 1 4
Probability  Magnitude/Severity  Warning Time	3 2 4	Probability  Magnitude/Severity  Warning Time	1 2 1 4 8
Probability  Magnitude/Severity  Warning Time  Duration	3 2 4 1	Probability  Magnitude/Severity  Warning Time  Duration	
Probability  Magnitude/Severity  Warning Time  Duration	3 2 4 1	Probability  Magnitude/Severity  Warning Time  Duration	
Probability  Magnitude/Severity  Warning Time  Duration  Total:	3 2 4 1	Probability  Magnitude/Severity  Warning Time  Duration  Total:	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity	
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration	
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:	
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT	
Probability  Magnitude/Severity  Warning Time  Duration  Total:  23. LANDSLIDE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  25. PANDEMIC HUMAN DISEASE  Probability	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability	
Probability Magnitude/Severity Warning Time Duration  Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration  Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity	1 1 1 1 4
Probability Magnitude/Severity Warning Time Duration Total:  23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time	3 2 4 1	Probability Magnitude/Severity Warning Time Duration Total:  24. LEVEE FAILURE Probability Magnitude/Severity Warning Time Duration Total:  26. PIPELINE TRANSPORTATION INCIDENT Probability Magnitude/Severity Warning Time	1 1 1 1 4

		1 -
Probability 1	Probability	1
Magnitude/Severity 1	Magnitude/Severity	4
Warning Time 4	Warning Time	4
Duration 1	Duration	4
Total: 7	Total:	13
20 DAILWAY TRANSPORTATION INCIDENT	20 DIVED ELOODING	
29. RAILWAY TRANSPORTATION INCIDENT	30. RIVER FLOODING	1
Probability 2	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 4	Warning Time	1
Duration 3 Total: 10	Duration	1
Total: 10	Total:	4
31. SEVERE WINTER STORM	32. SINKHOLES	
Probability 2	Probability	1
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 3	Warning Time	1
Duration 1	Duration	3
Total:	Total:	9
33. STRUCTURAL FAILURE	34. STRUCTURAL FIRE	
Probability 1	Probability	2
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 4	Warning Time	4
Duration 3	Duration	2
Total: 9	Total:	9
35. THUNDERSTORM AND LIGHTNING	36. TORNADO	
Probability 4	Probability	1
Magnitude/Severity 1	Magnitude/Severity	2
Warning Time 4	Warning Time	4
Duration 1	Duration	4
Total: 10	Total:	11
_		
37. TRANSPORTATION HAZARDOUS MATERIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL MA	ATERIALS INCIDENT
Probability 1	Probability	1
Magnitude/Severity 2	Magnitude/Severity	3
Warning Time 4	Warning Time	4
Duration 3	Duration	3
Total: 10	Total:	11
39. WATERWAY INCIDENT	40. WINDSTORM	
Probability 1	Probability	2
Magnitude/Severity 1	Magnitude/Severity	1
Warning Time 1	Warning Time	4
Duration 1	Duration	1
Total: 4	Total:	8

#### Hazard Analysis and Risk Assessment Hazard Profile Scoring Summary Page

Jurisdiction: Unincorporated Scott County

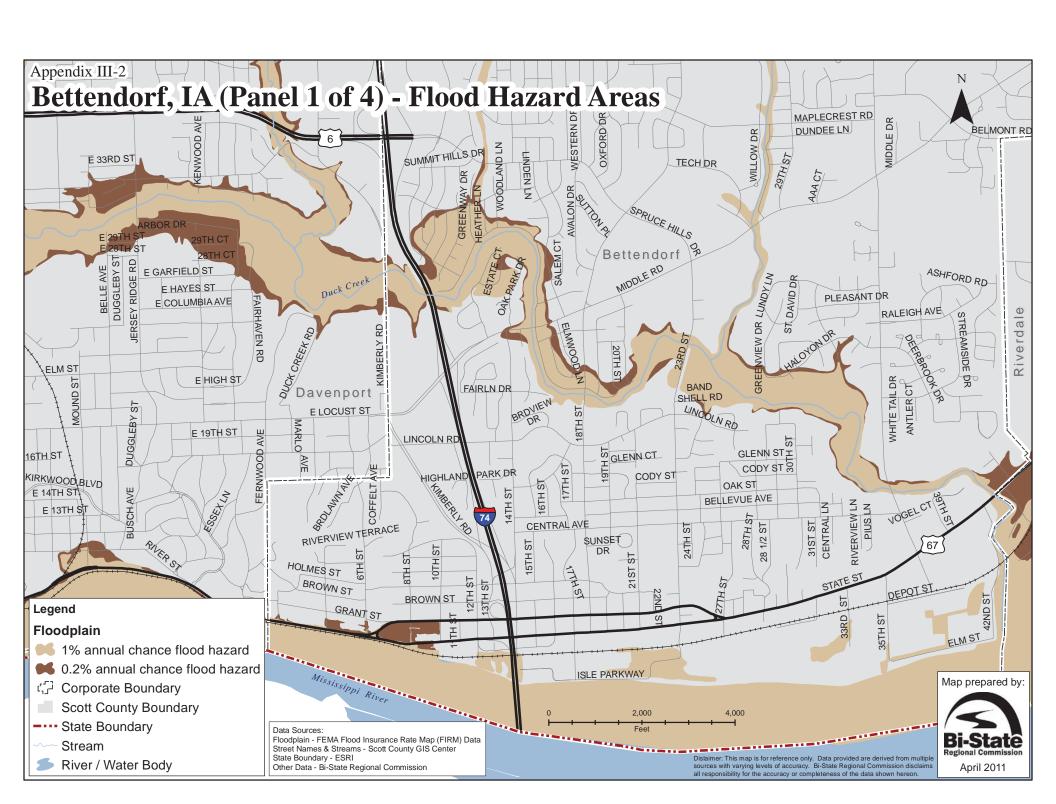
1. AGRO - TERRORISM		2. AIR TRANSPORTATION INCIDENT	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	1	Duration	2
Total:	7	Total:	9
3. ANIMAL/CROP/PLANT DISEASE		4. BIOLOGICAL TERRORISM	
Probability	4	Probability	1
Magnitude/Severity	3	Magnitude/Severity	3
Warning Time	1	Warning Time	4
Duration	4	Duration	4
Total:	12	Total:	12
5. CHEMICAL TERRORISM		C. COMMUNICATIONS TERRORISM	
Probability	1	6. COMMUNICATIONS TERRORISM  Probability	1
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	3	Duration	3
Total:	11	Total:	10
7. CONVENTIONAL TERRORISM		8. CYBER TERRORISM	
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	2
Warning Time	4	Warning Time	4
Duration	2	Duration	2
Total:	9	Total:	9
O. DAMEAULIDE		10 ppougus	
9. DAM FAILURE	1	10. DROUGHT	1 1
Probability	1	Probability	1
Magnitude/Severity	3	Magnitude/Severity	1
Warning Time	4	Warning Time	
Duration Total:	11	Duration Total:	4 7
Total.		Total.	,
11. EARTHQUAKE		12. ENEMY ATTACK	
Probability	1	Probability	1
Magnitude/Severity	1	Magnitude/Severity	3
Warning Time	4	Warning Time	3
Duration	1	Duration	4
Total:	7	Total:	11

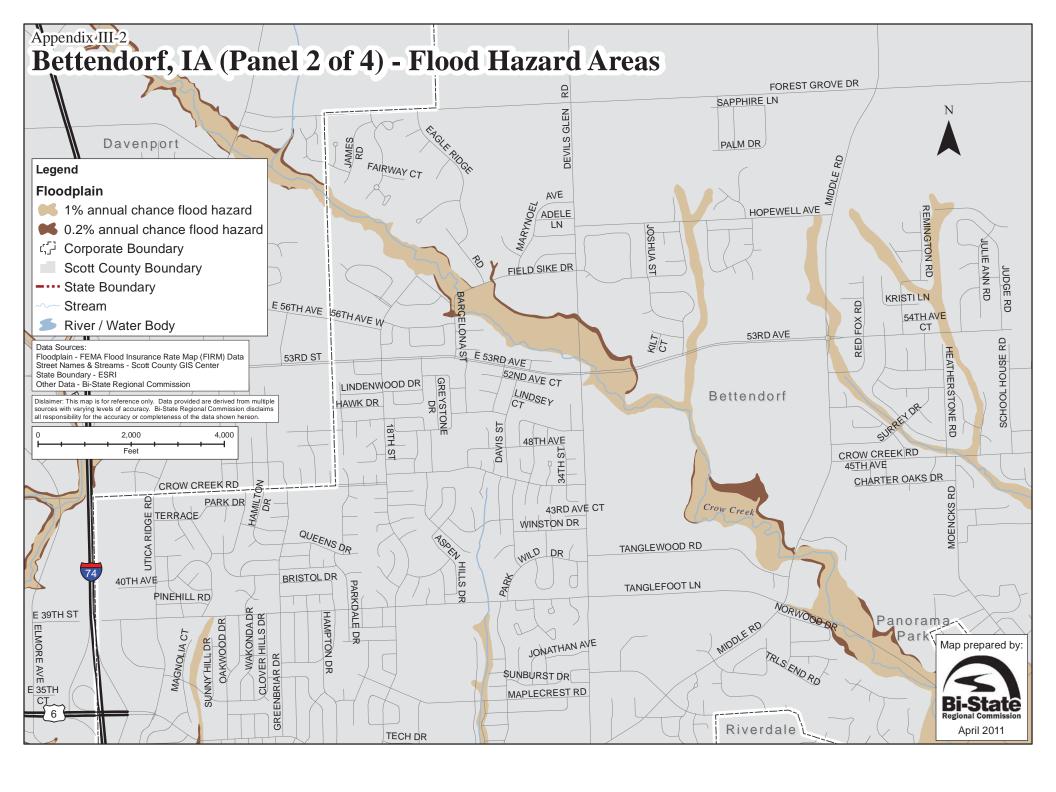
42 ENERGY FAILURE		44 EVDANCIVE COULC	
13. ENERGY FAILURE	1	14. EXPANSIVE SOILS	1
Probability	1	Probability	1
Magnitude/Severity	2	Magnitude/Severity	1
Warning Time	4	Warning Time	1
Duration Tabel	3 10	Duration	1
Total:	10	Total:	4
15. EXTREME HEAT		16. FIXED HAZARDOUS MATERIALS	
Probability	4	Probability	2
Magnitude/Severity	1	Magnitude/Severity	1
Warning Time	1	Warning Time	<u>΄</u>
Duration	3	Duration	3
Total:	9	Total:	10
17. FIXED RADIOLOGICAL INCIDENT		18. FLASH FLOOD	
Probability	1	Probability	2
Magnitude/Severity	3	Magnitude/Severity	2
Warning Time	3	Warning Time	3
Duration	4	Duration	2
Total:	11	Total:	9
			•
19. GRASS OR WILDLAND FIRE		20. HAILSTORM	
Probability	3	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	2
Duration	2	Duration	1
Total:	10	Total:	6
21. HIGHWAY TRANSPORTATION INCIDENT		22. HUMAN DISEASE INCIDENT	
Probability	4	Probability	1
Magnitude/Severity	1	Magnitude/Severity	2
Warning Time	4	Warning Time	1
Duration	1	Duration	4
		2 aradion	-
Total:	10	Total:	8
	10	Total:	
23. LANDSLIDE	10	Total:  24. LEVEE FAILURE	
23. LANDSLIDE Probability	10	Total:  24. LEVEE FAILURE  Probability	
23. LANDSLIDE Probability Magnitude/Severity	10 1 1	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity	1 1
23. LANDSLIDE Probability	10 1 1 1 4	Total:  24. LEVEE FAILURE  Probability	1 1 3
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration	10 1 1 1 4 2	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration	1 1 3 3
23. LANDSLIDE  Probability  Magnitude/Severity  Warning Time	10 1 1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time	1 1 3
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:	10 1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:	1 1 3 3
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE	10 1 1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT	1 1 3 3
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability	10 1 1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT  Probability	1 1 3 3
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity	10 1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT  Probability  Magnitude/Severity	1 1 3 3 8
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time	10 11 1 4 2 8 11 2 11	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT  Probability  Magnitude/Severity  Warning Time	1 1 3 3 8
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time Duration	1 1 4 2 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT  Probability  Magnitude/Severity  Warning Time  Duration	1 1 3 3 8
23. LANDSLIDE Probability Magnitude/Severity Warning Time Duration Total:  25. PANDEMIC HUMAN DISEASE Probability Magnitude/Severity Warning Time	10 11 14 2 8 11 2 11 4 8	Total:  24. LEVEE FAILURE  Probability  Magnitude/Severity  Warning Time  Duration  Total:  26. PIPELINE TRANSPORTATION INCIDENT  Probability  Magnitude/Severity  Warning Time	1 1 3 3 8

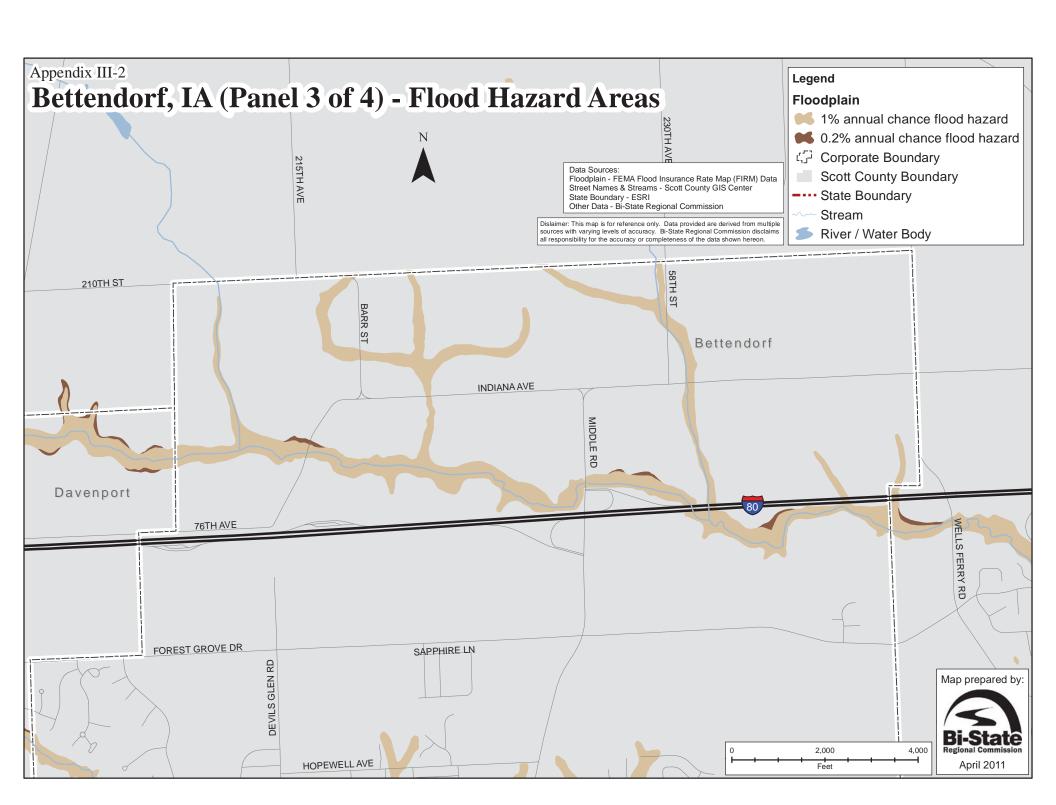
Dechability	1	Deckskiller.	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	3	Warning Time	
Duration	1	Duration	
Total:	6	Total:	1
29. RAILWAY TRANSPORTATION INCIDENT		30. RIVER FLOODING	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	
Duration	2	Duration	
Total:	8	Total:	1
.0	<u> </u>	.0	
31. SEVERE WINTER STORM		32. SINKHOLES	
Probability	3	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	3	Warning Time	4
Duration	4	Duration	,
Total:	11	Total:	1
33. STRUCTURAL FAILURE		34. STRUCTURAL FIRE	
Probability	1	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	4	Warning Time	4
Duration	3	Duration	
Total:	10	Total:	1
35. THUNDERSTORM AND LIGHTNING		36. TORNADO	•
Probability	4	Probability	
Magnitude/Severity	2	Magnitude/Severity	
Warning Time	2	Warning Time	:
Duration	2	Duration	
Total:	10	Total:	
37. TRANSPORTATION HAZARDOUS MATE	RIALS INCIDENT	38. TRANSPORTATION RADIOLOGICAL	MATERIALS INCIDENT
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	4
Duration	2	Duration	:
Total:	8	Total:	10
39. WATERWAY INCIDENT		40. WINDSTORM	
Probability	1	Probability	
Magnitude/Severity	1	Magnitude/Severity	
Warning Time	4	Warning Time	:
Duration	2	Duration	;
Total:	8	Total:	10

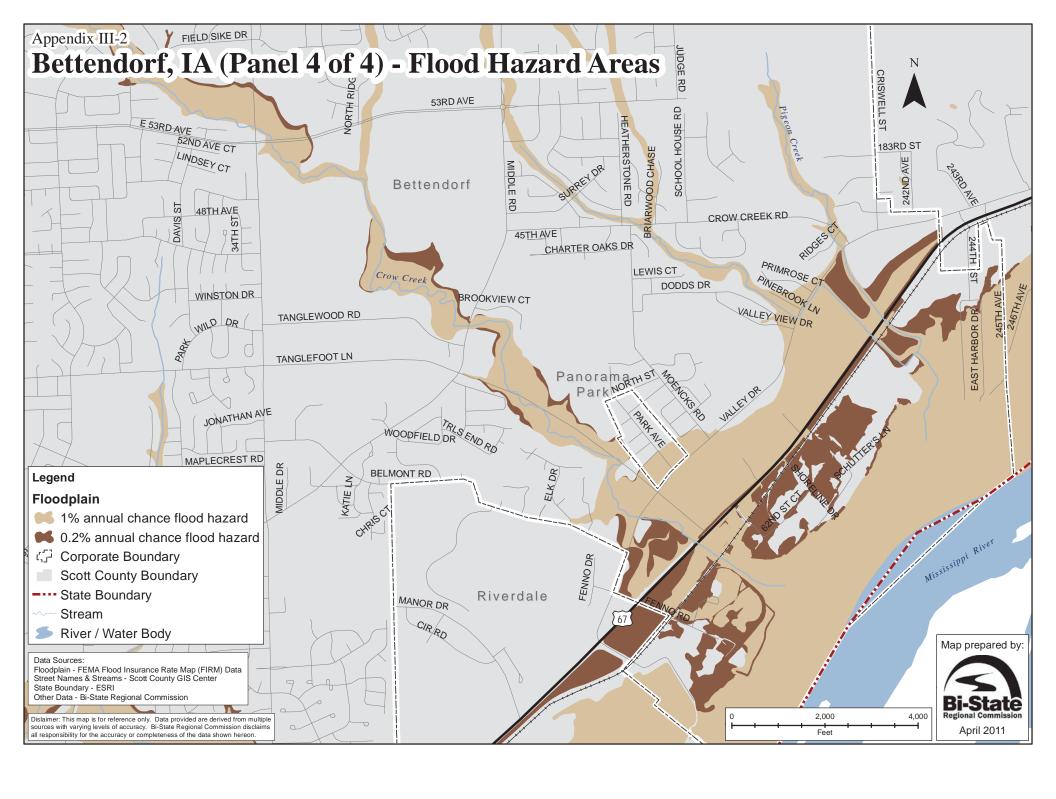
Appendix III-2	

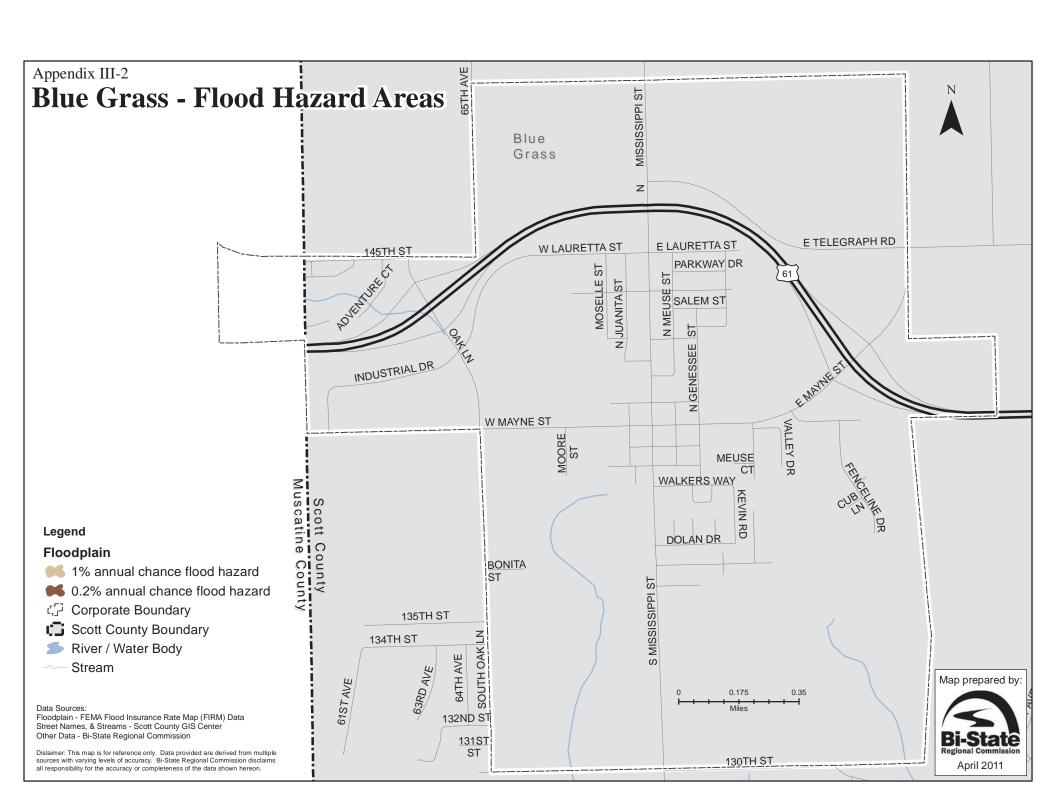
APPENDIX III-2 SPECIAL FLOOD HAZARD AREA MAPS

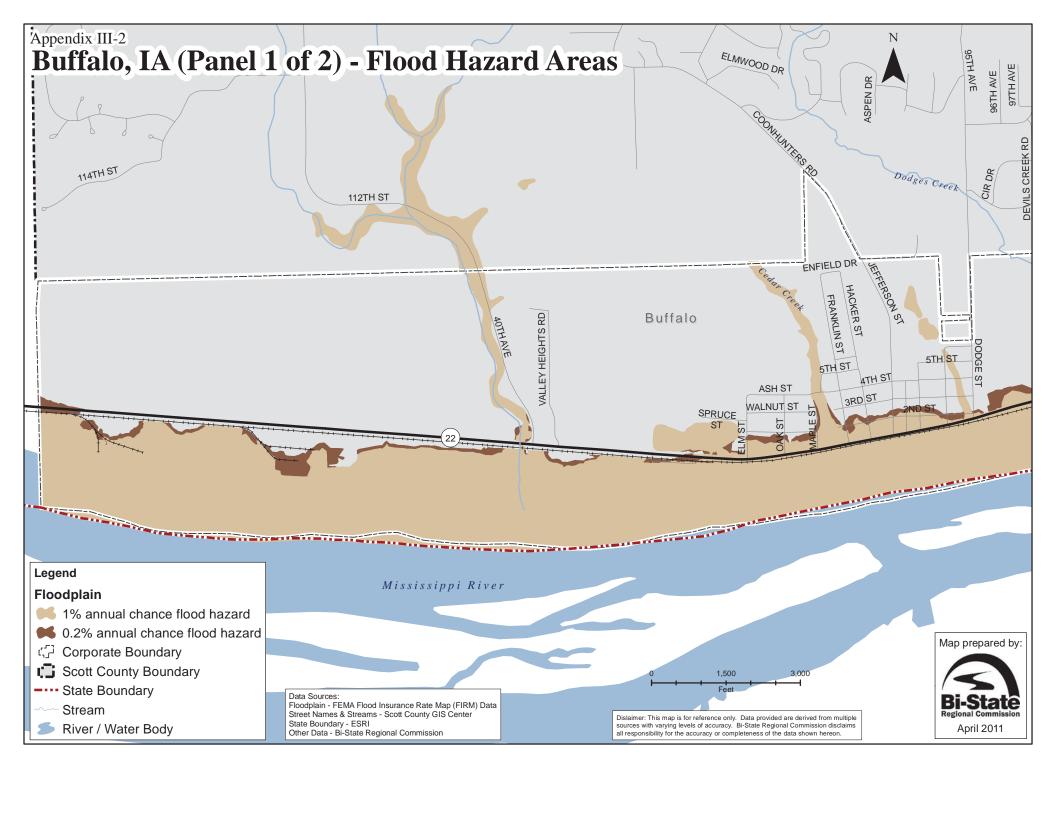


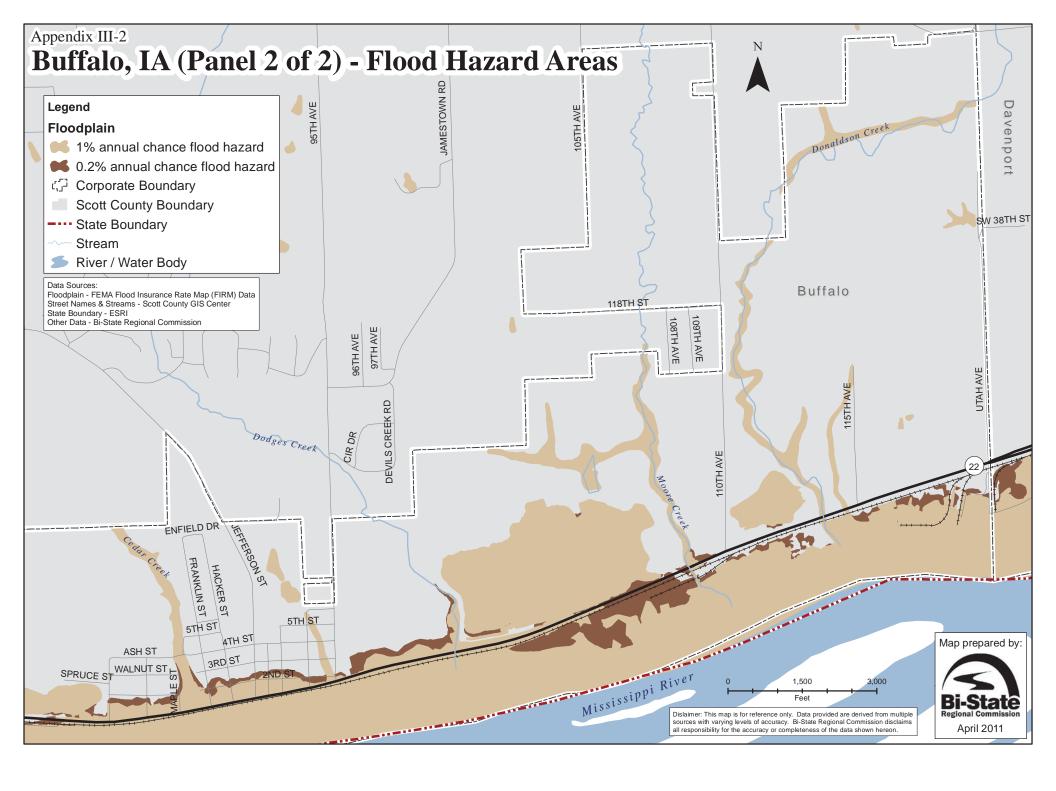


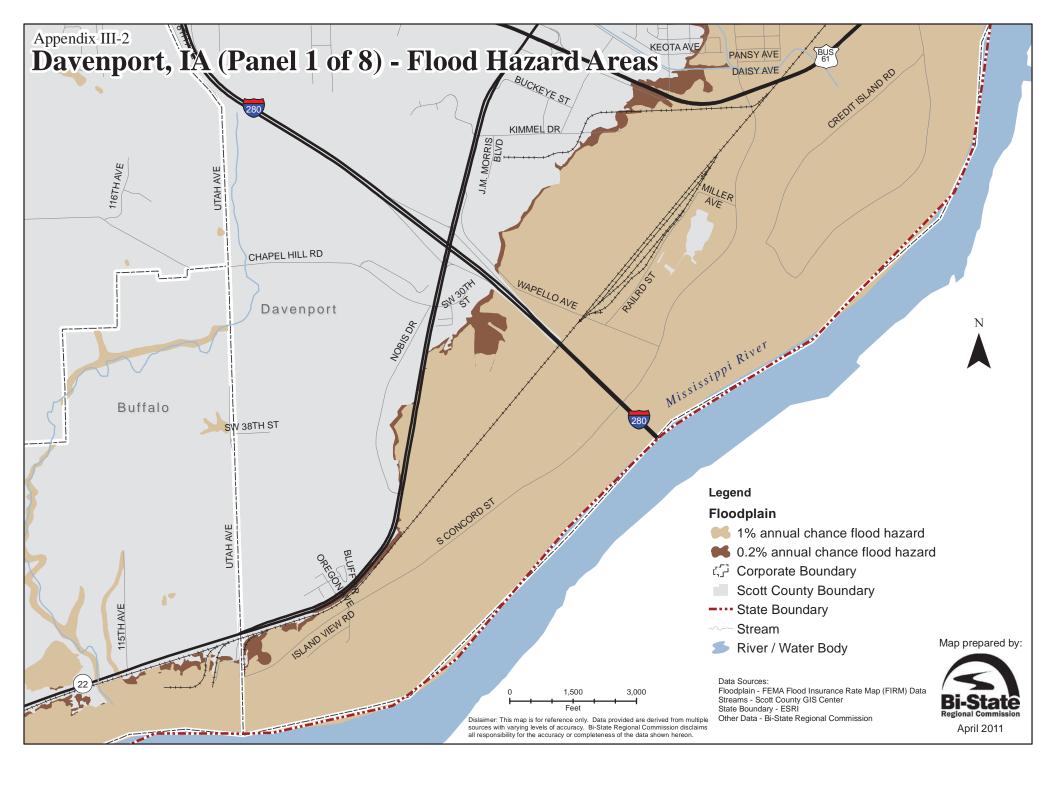


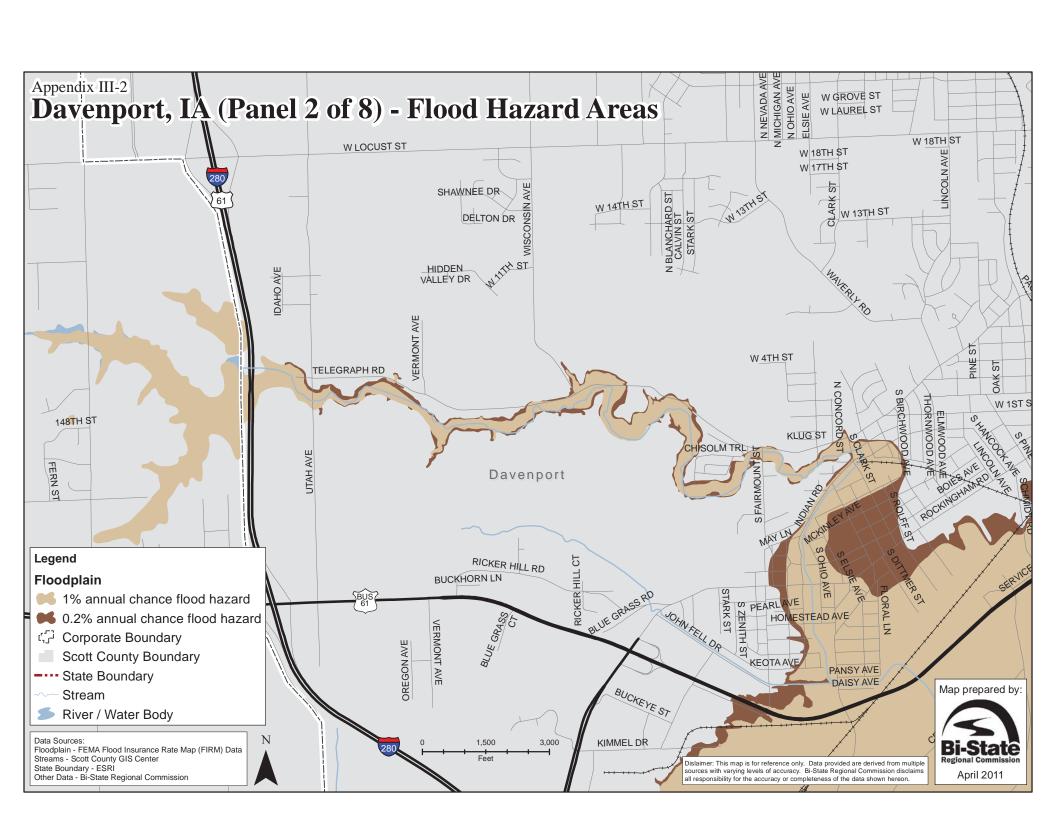


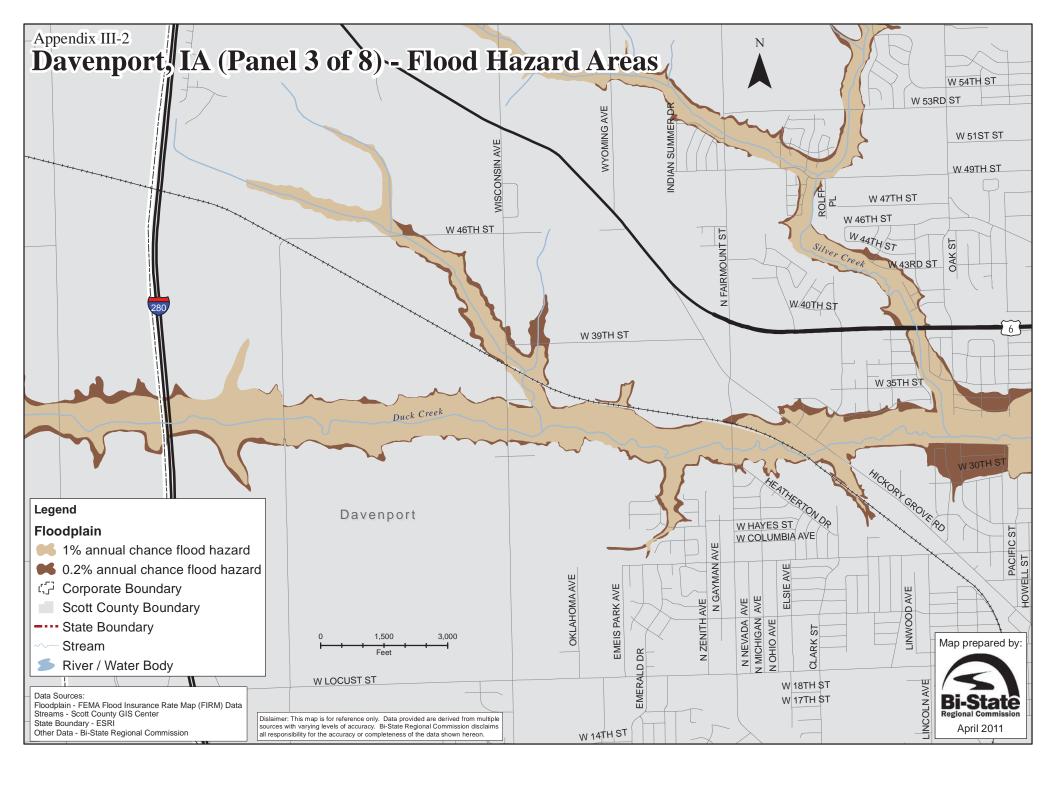


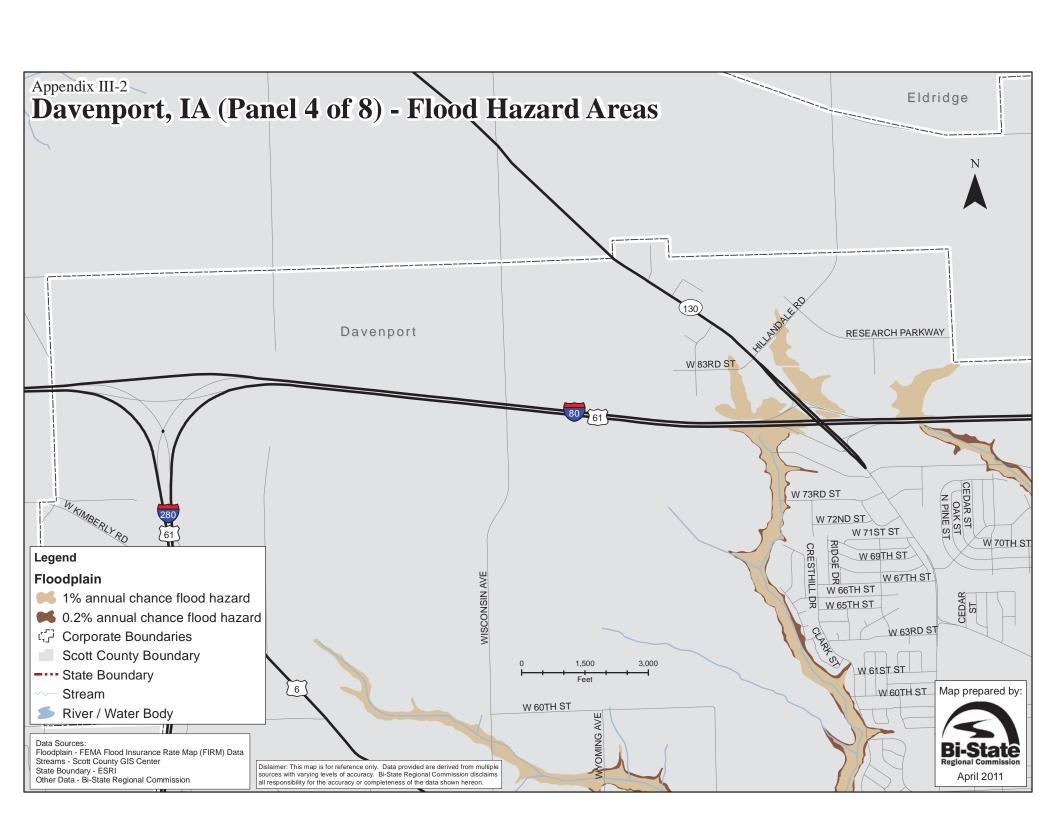


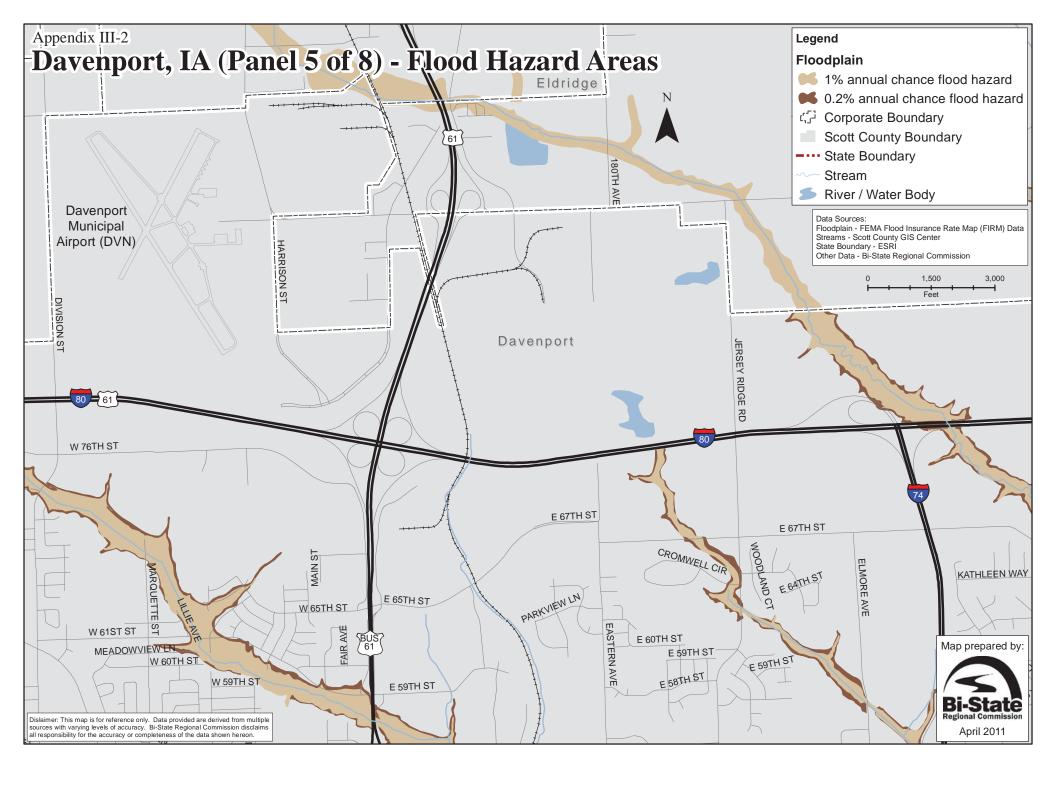


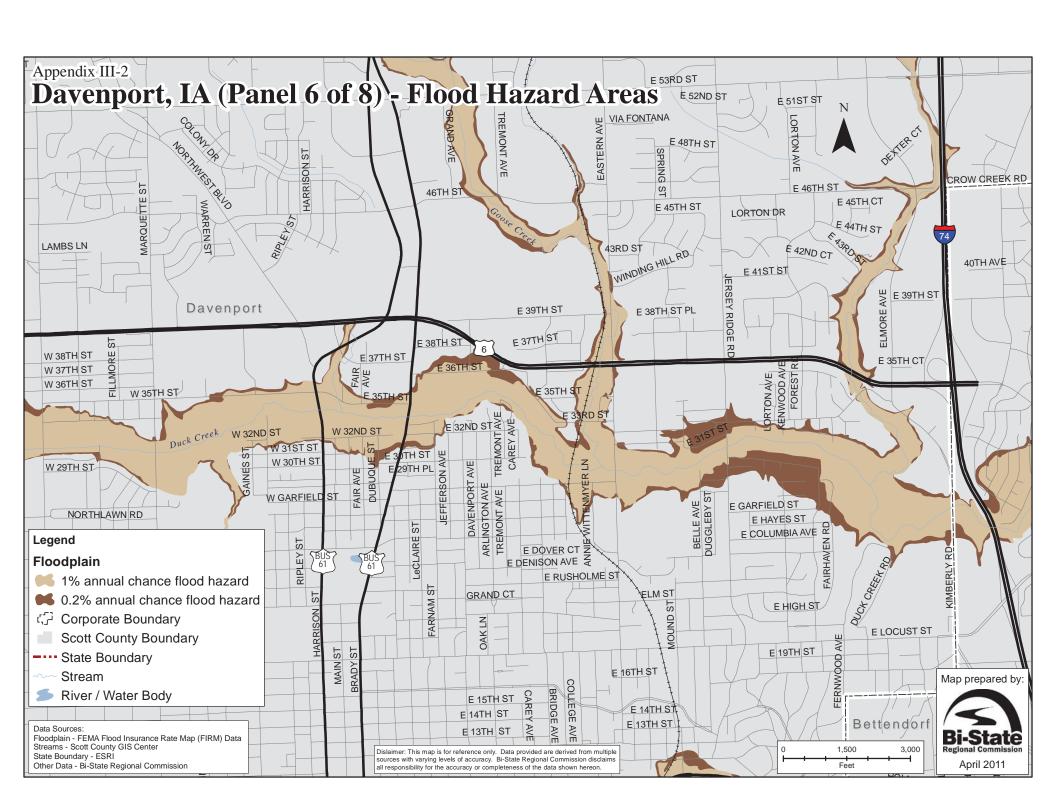


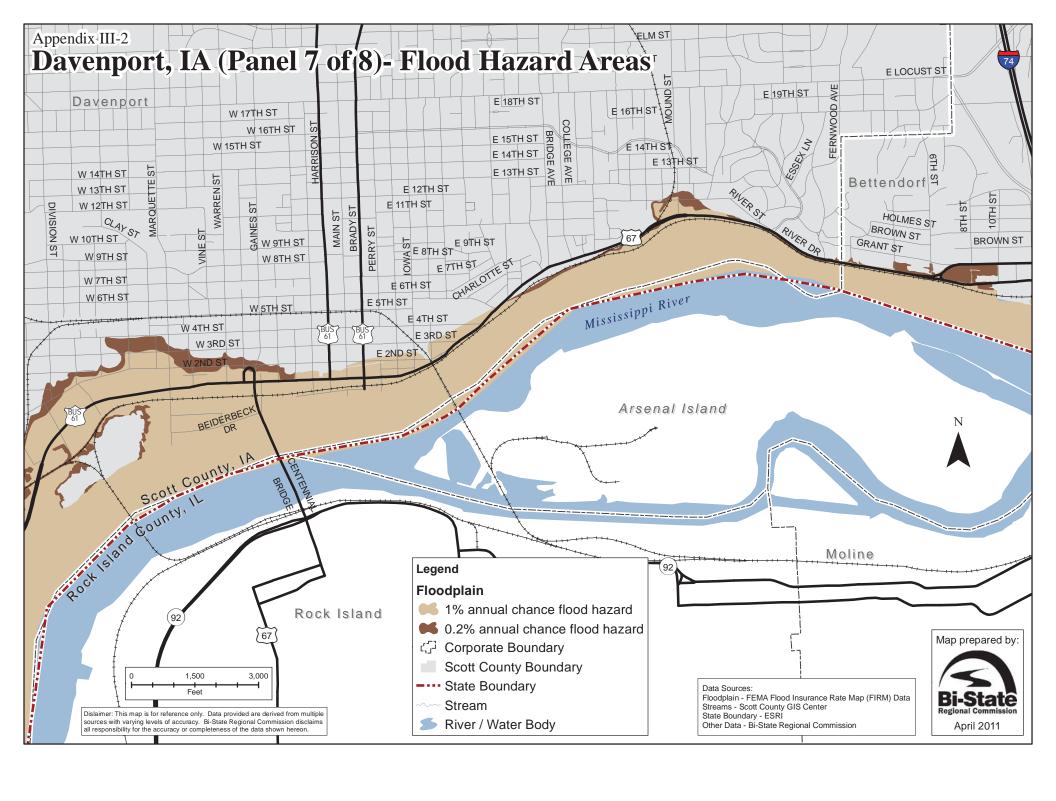


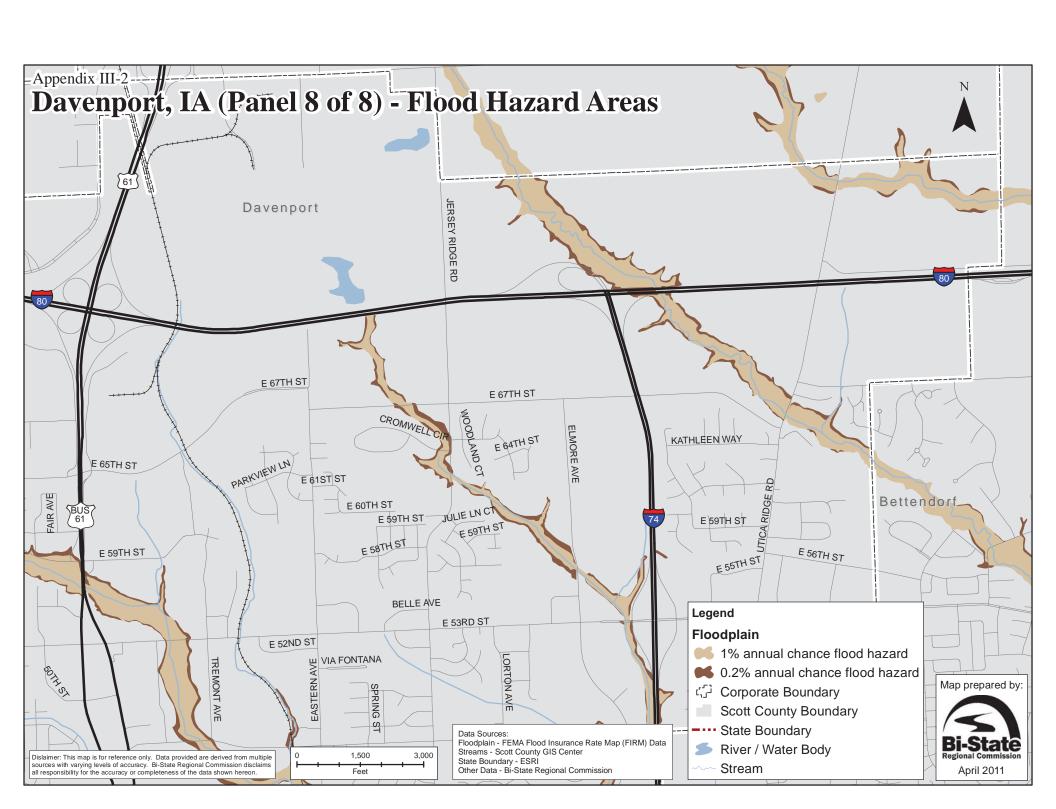


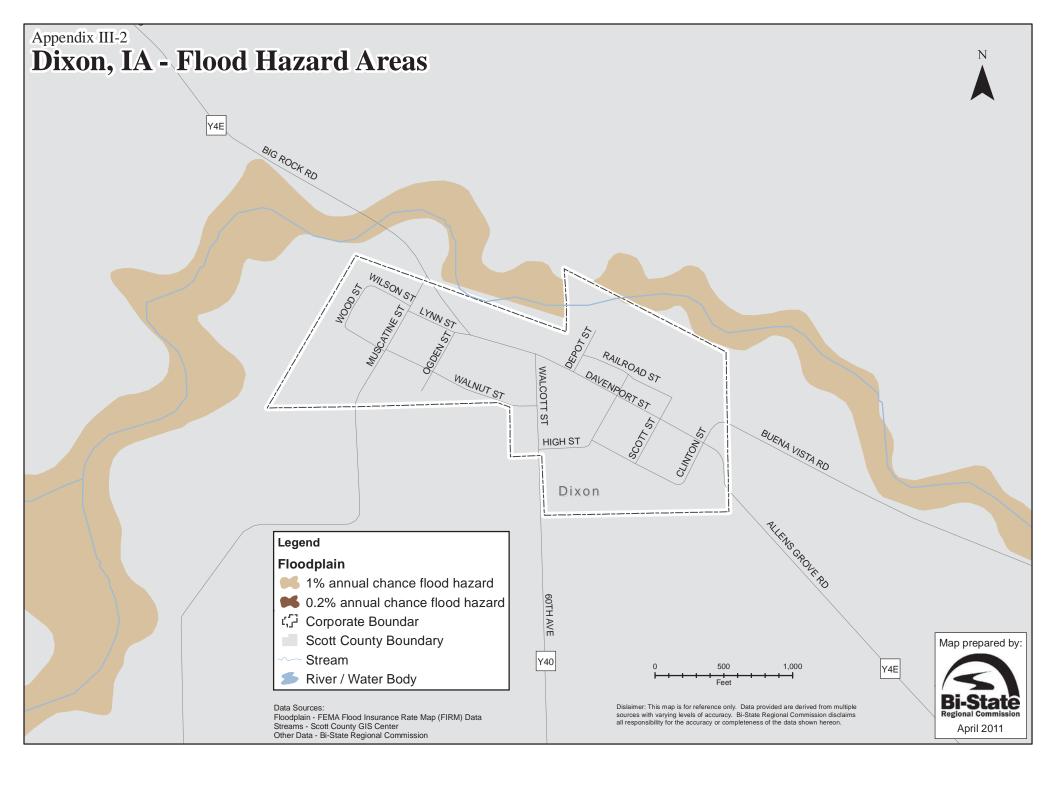


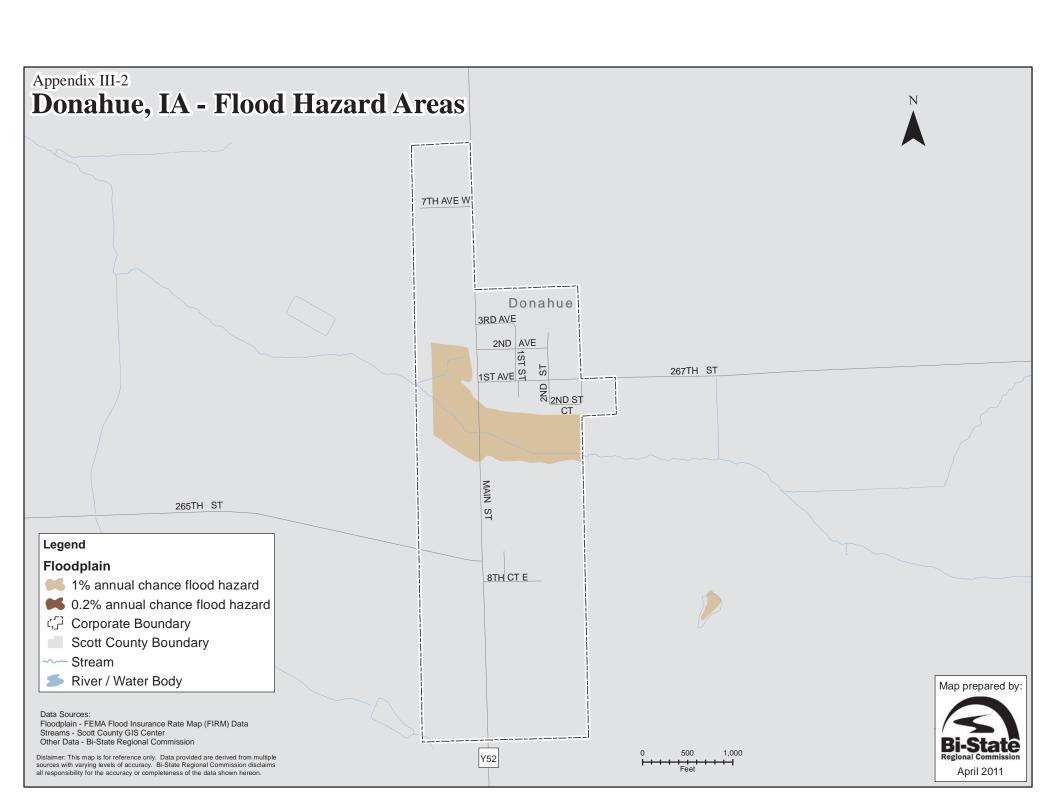


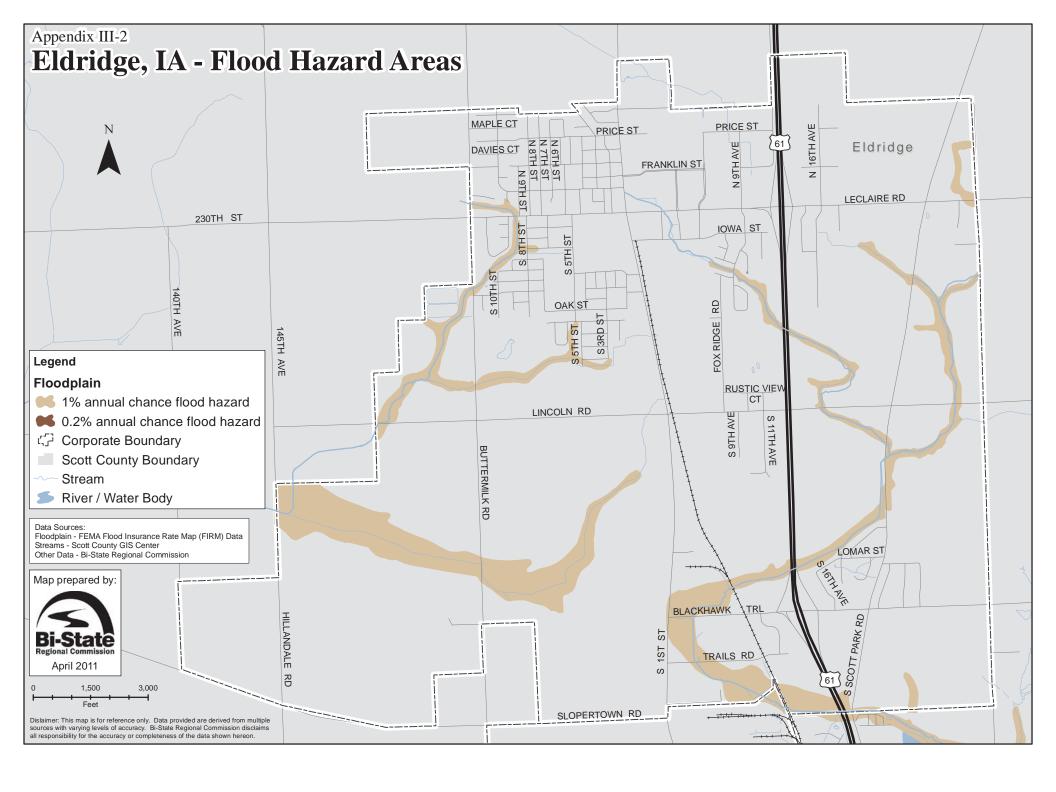


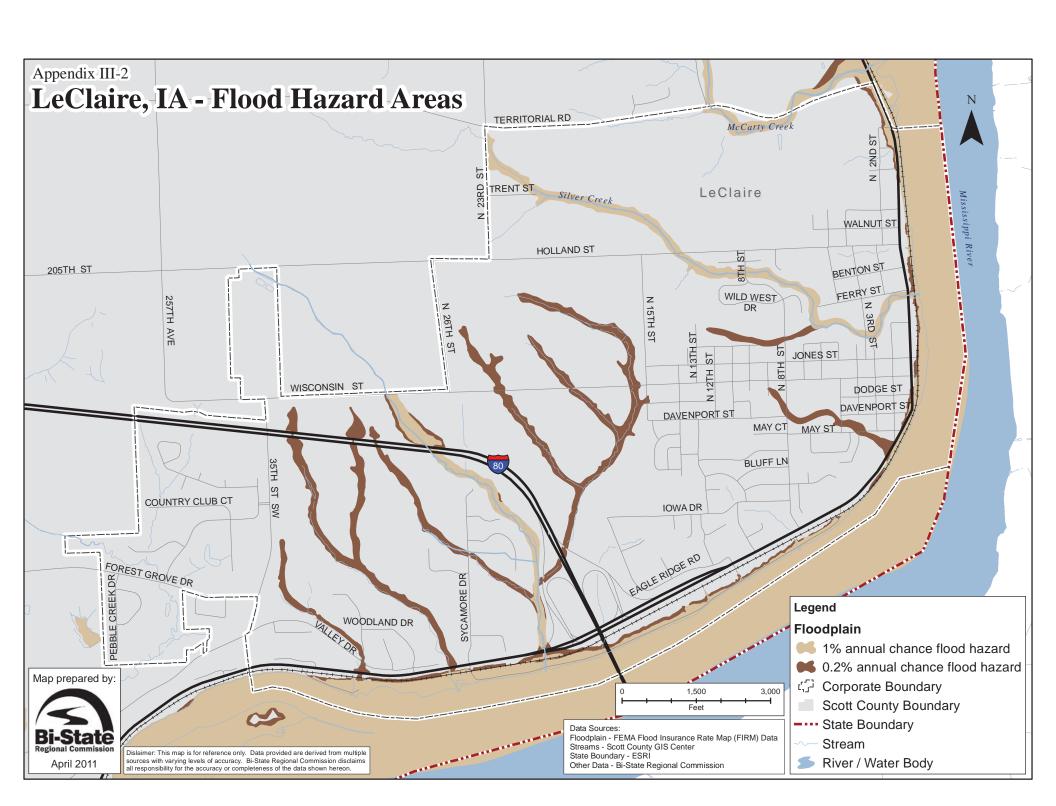


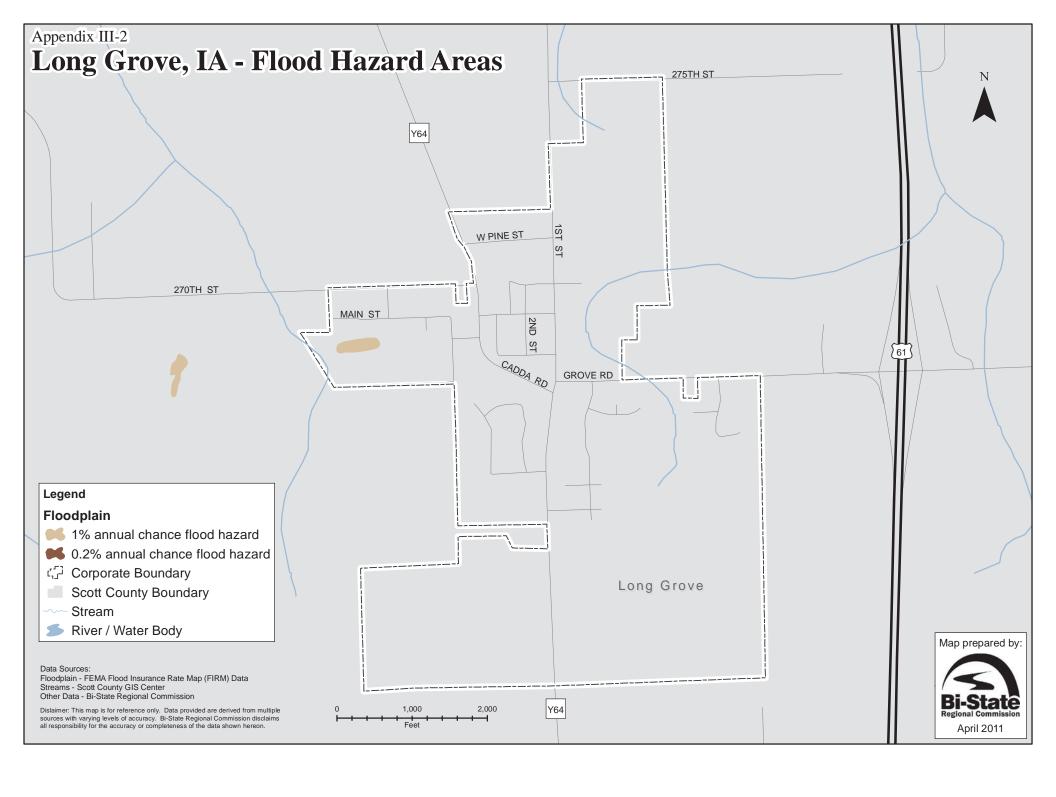


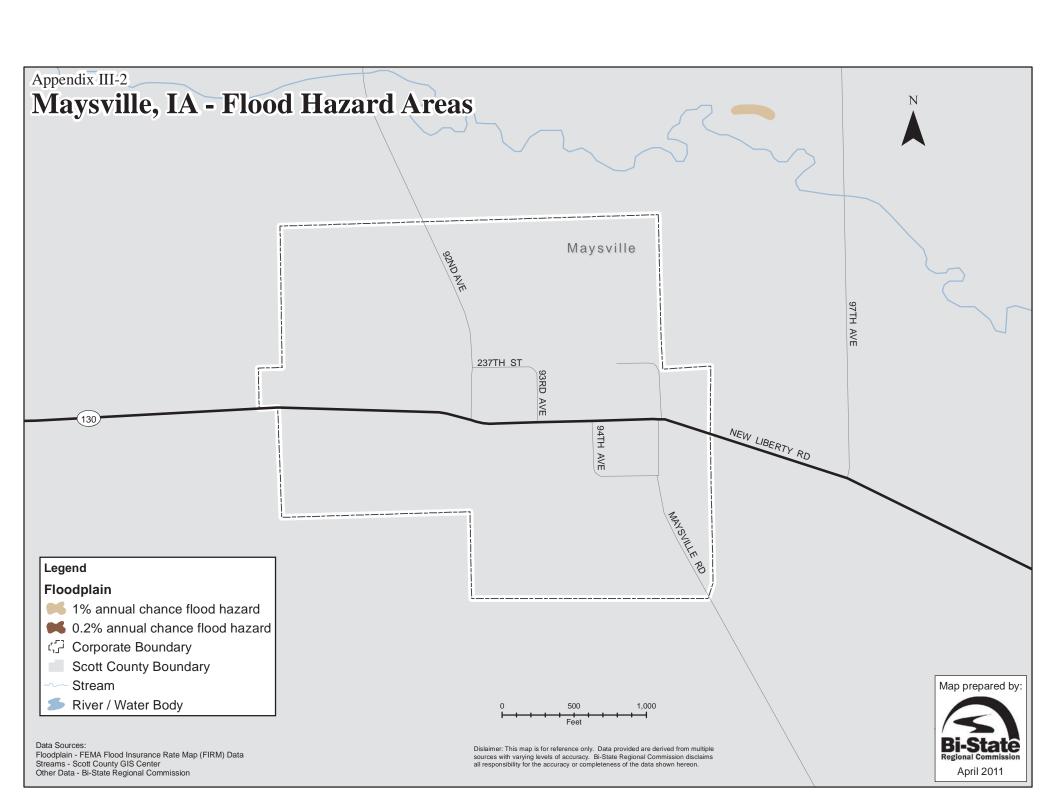


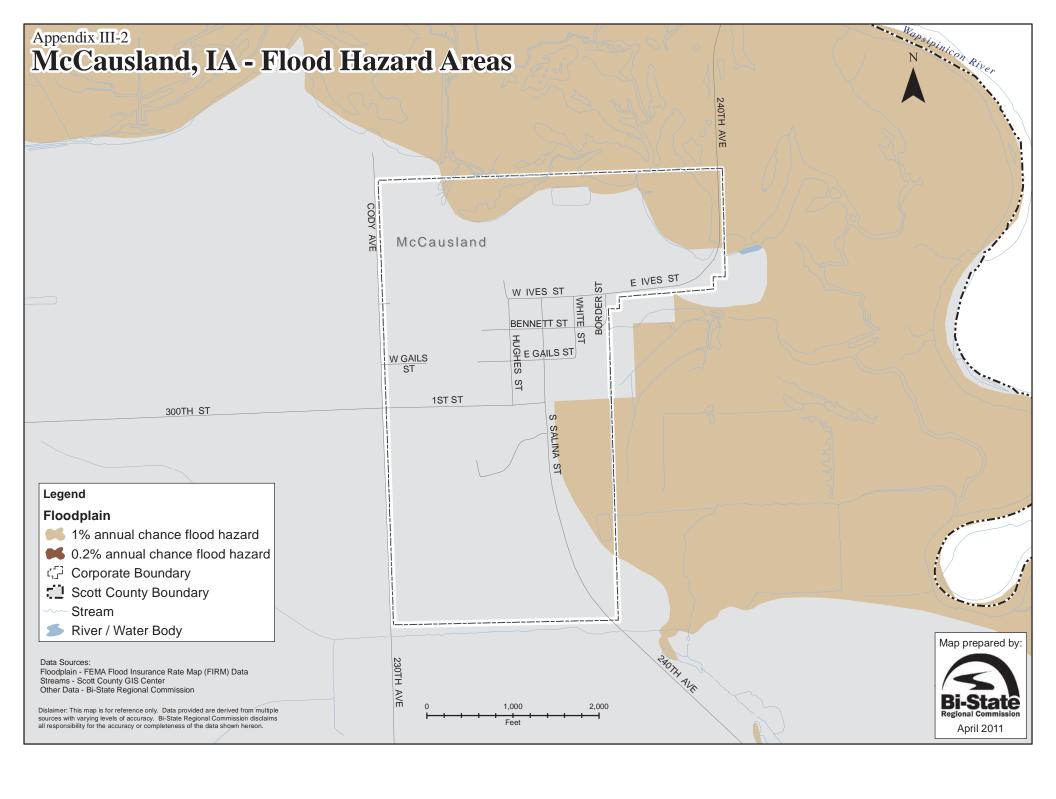


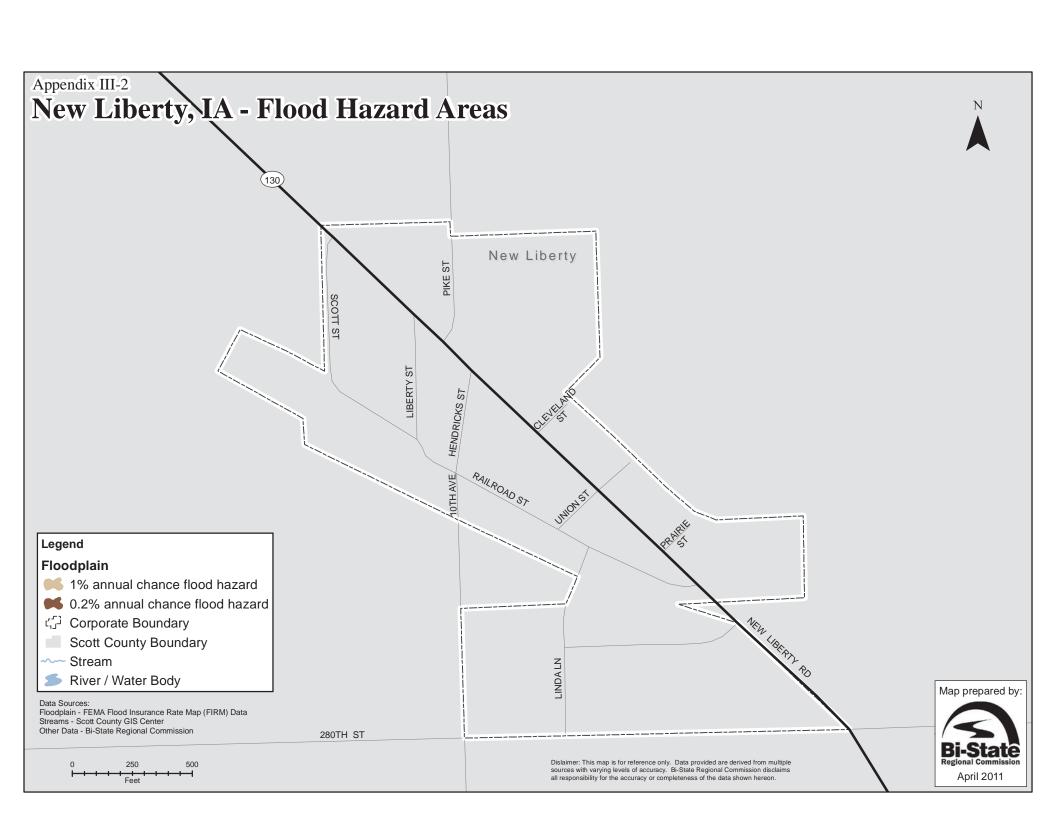


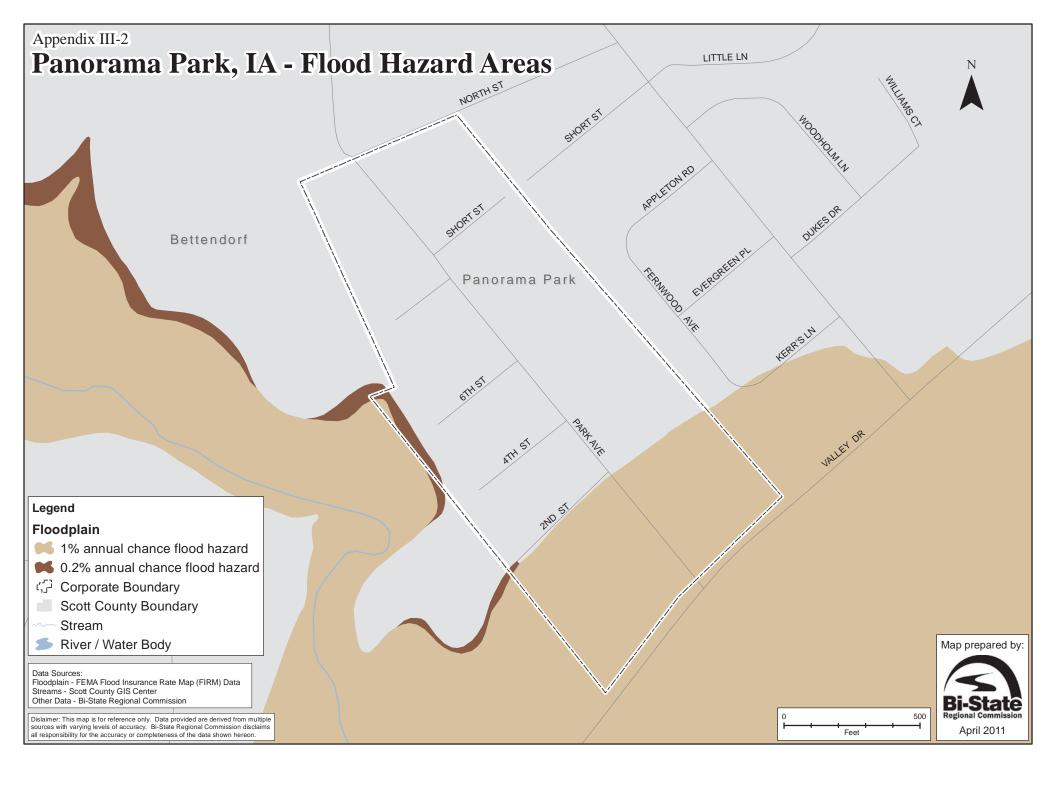


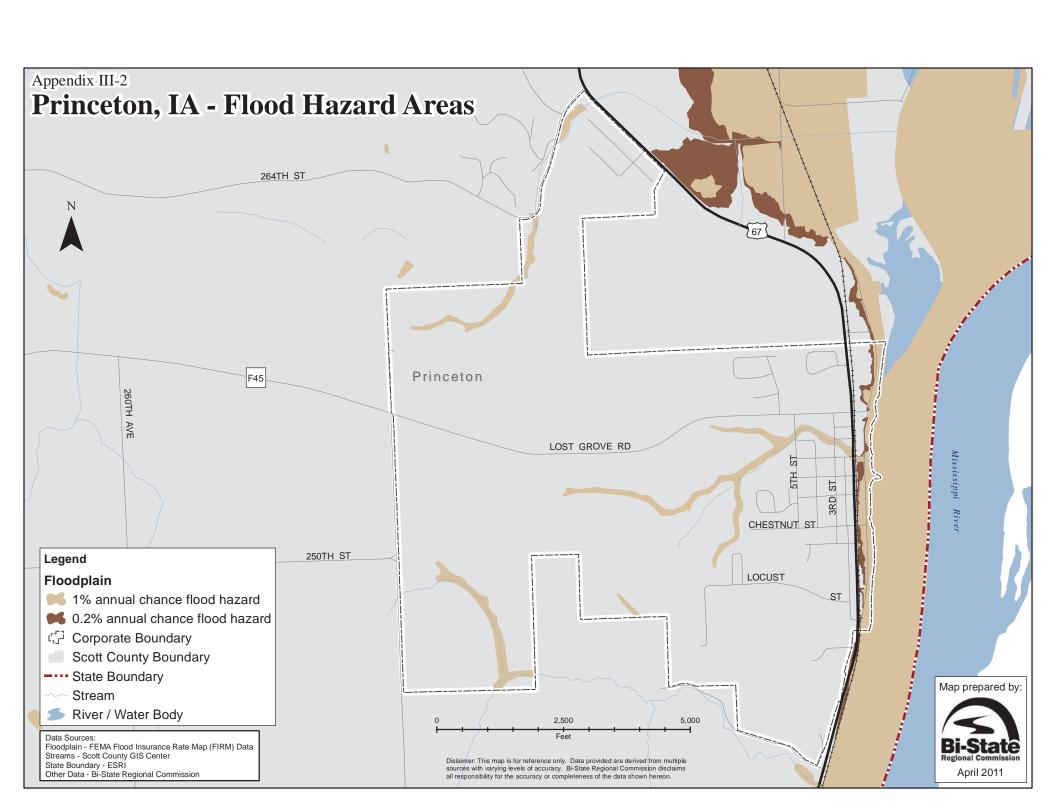


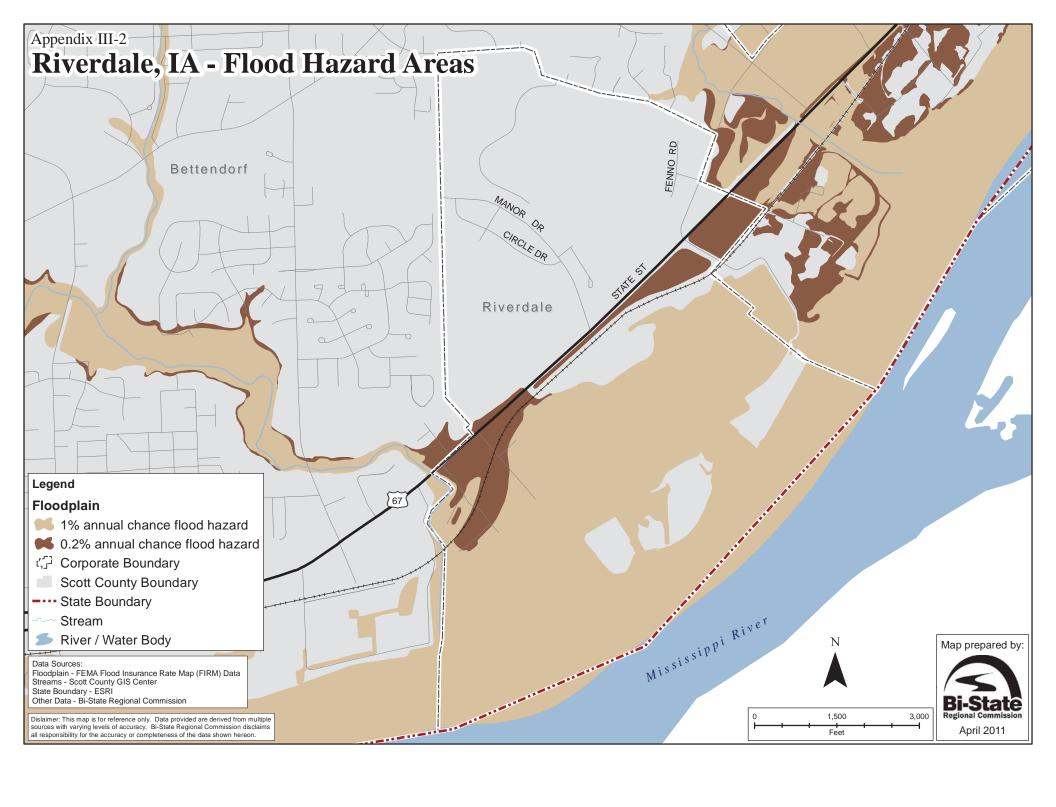


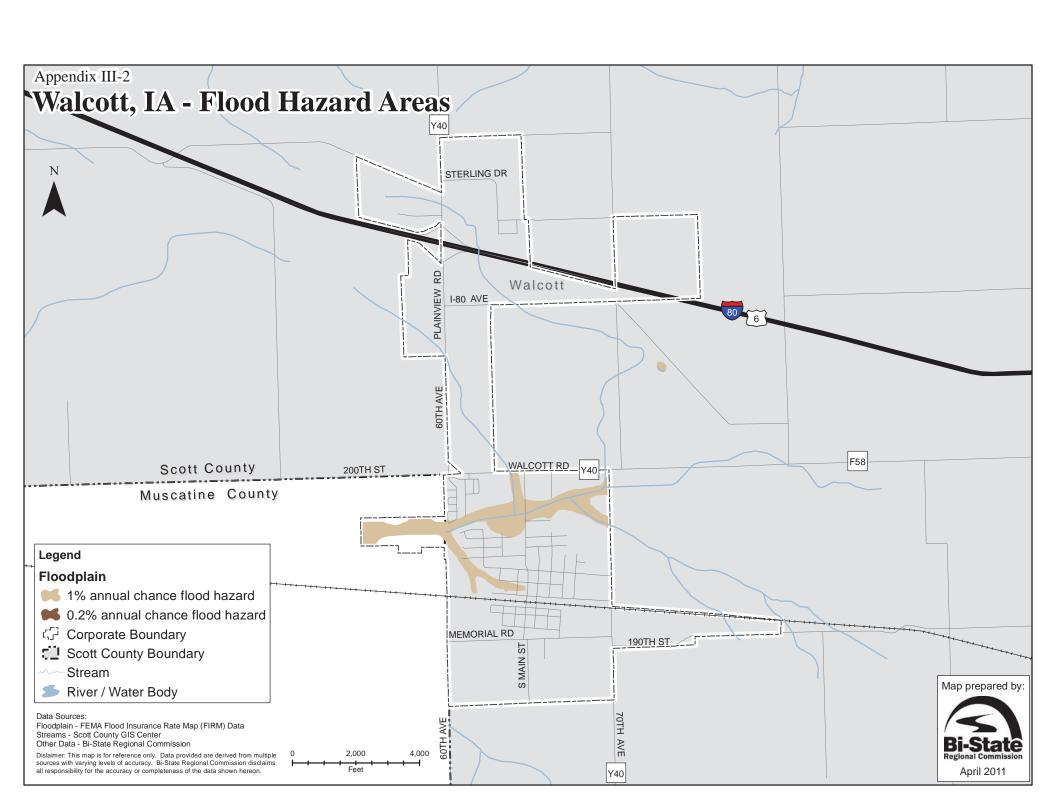


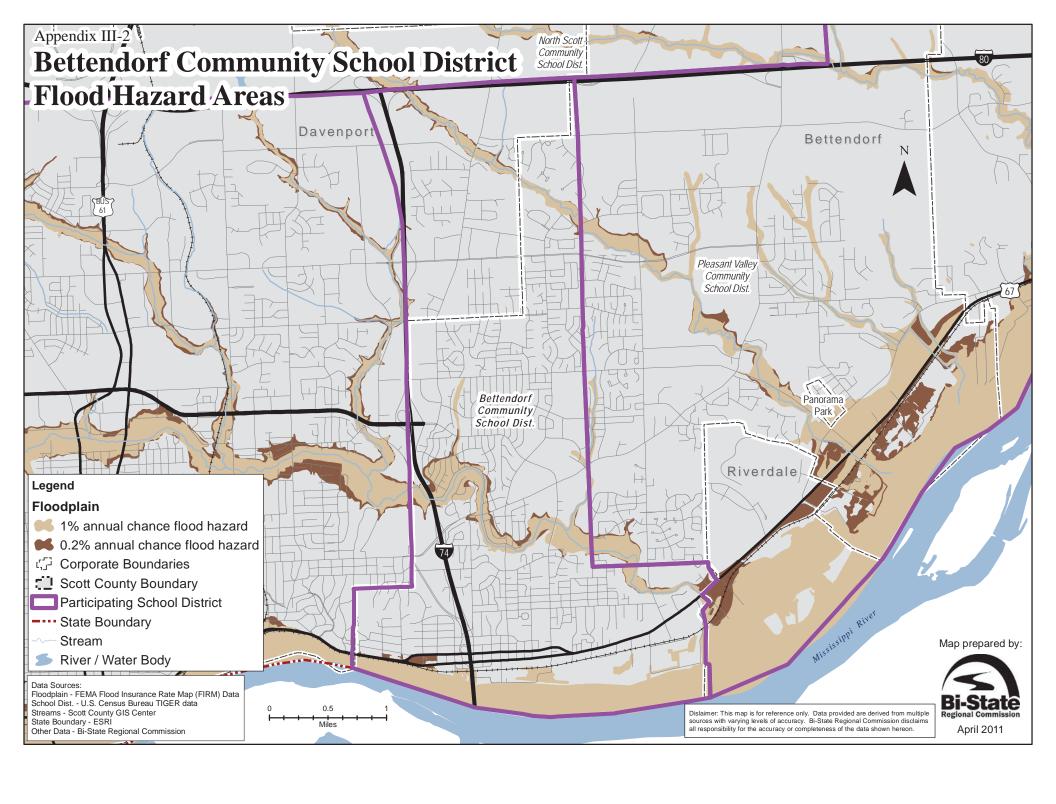


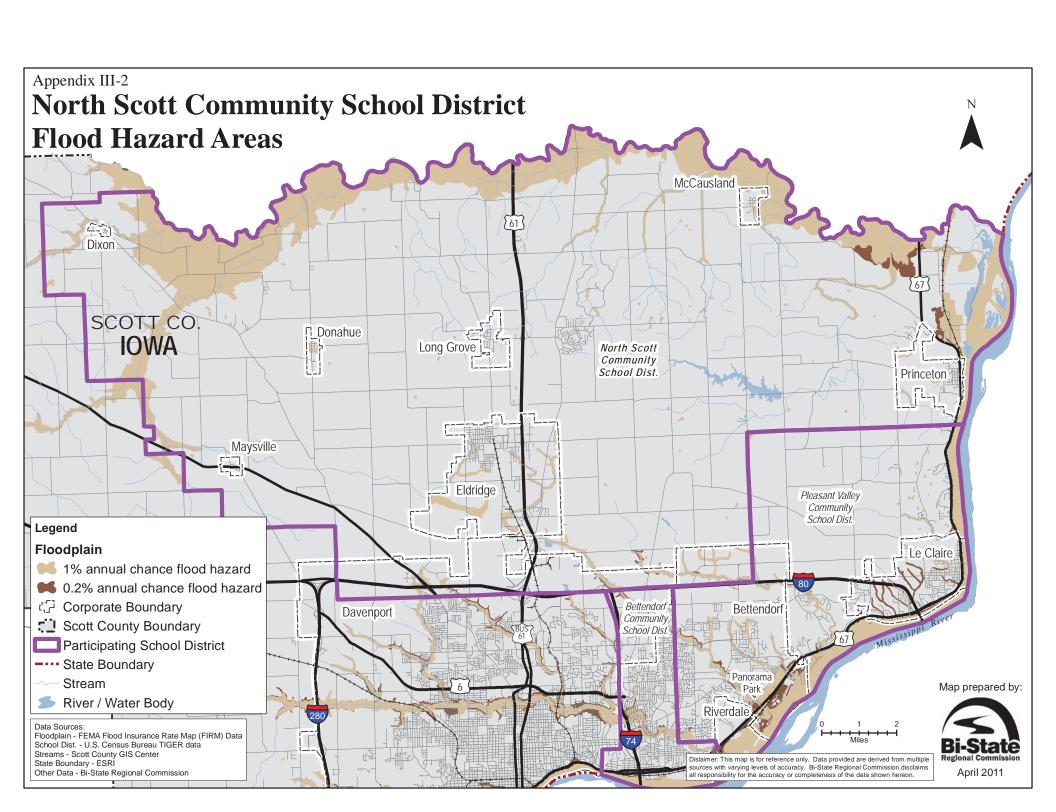


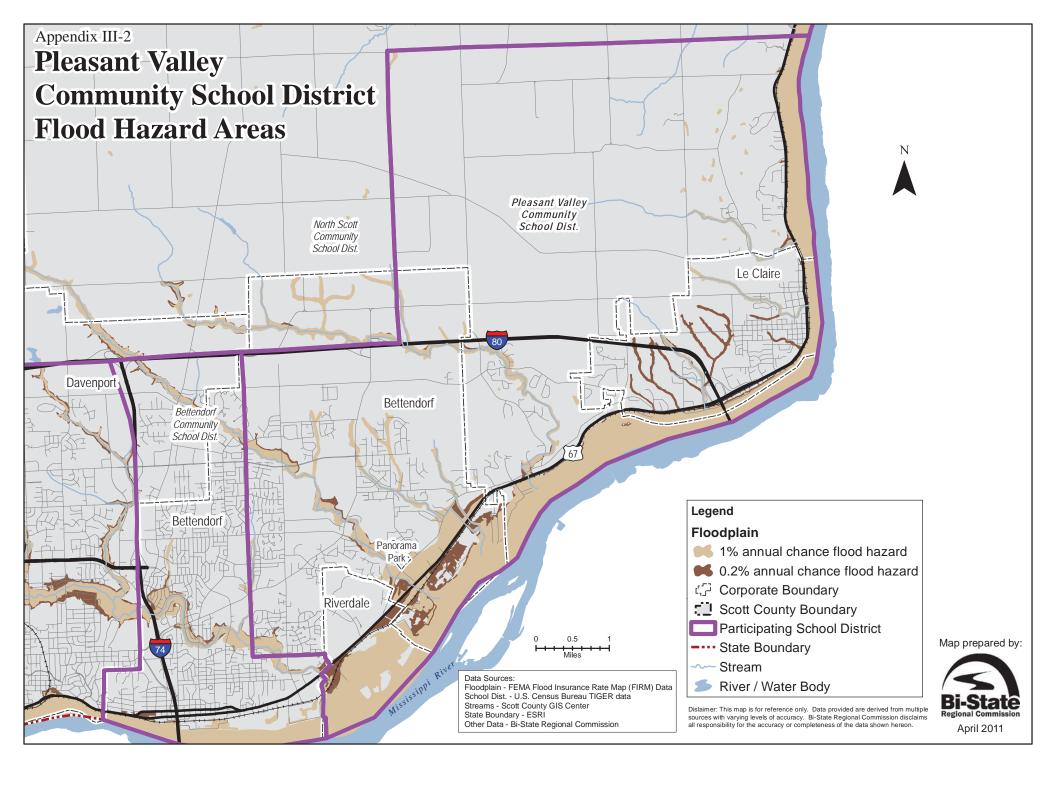












Appen	div	$IV_{-1}$
Appen	uix	T A - T

APPENDIX IV-1 STAPLEE EVALUATION INFORMATION AND INSTRUCTIONS

## STAPLEE Evaluation Criteria for Mitigation Actions

The STAPLEE evaluation method uses seven criteria for evaluating a mitigation action: Social, Technical, Administrative, Political, Legal, Economic, and Environmental. Within each of those criteria are additional considerations that may call upon the Risk Assessment and other sources of information for evaluation. A sample worksheet format at the end of this Appendix. An explanation of how each of the STAPLEE criteria may be applied to evaluation of mitigation actions follows:

**Social:** The public must support the overall implementation strategy and specific mitigation actions and the mitigation actions are evaluated in terms of community acceptance.

### **Considerations:**

**Community Acceptance:** Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people? Is the action compatible with present and future community values?

**Effect on Segment of Population:** Will the proposed action adversely affect one segment of the population?

**Technical:** It is important to determine if the proposed action is technically feasible, will help to reduce losses in the long term, and has minimal secondary impacts. This category evaluates whether the alternative action is a whole or partial solution, or not a solution at all.

#### **Considerations:**

**Technical Feasibility:** How effective is the action in avoiding or reducing future losses?

**Long-Term Solution:** Does the action solve the problem or only a symptom? **Secondary Impacts:** Will the action create more problems than it solves?

**Administrative:** This category examines the anticipated staffing, funding, and maintenance requirements for the mitigation actions to determine if the jurisdiction has the personnel and administrative capabilities to implement the actions or whether outside help will be necessary.

### **Considerations:**

**Staffing (sufficient number of staff and training):** Does the jurisdiction have the capability (staff, technical experts) to implement the action?

**Funding allocated:** Does the jurisdiction have the funding to implement the action or can it readily be obtained? Can it be accomplished in a timely manner?

**Maintenance**/Operations: Can the community provide the necessary maintenance?

**Political:** This considers the level of political support for the mitigation activities and programs.

### **Considerations:**

**Political Support:** Is there political support to implement and maintain this action? Have political leaders participated in the planning process so far?

**Local Champion or Plan Proponent (respected community member)** Is there a local champion willing to help see the action to completion?

**Public Support** (**stakeholders**): Is there enough public support to ensure the success of the action? Have all the stakeholders been offered an opportunity to participate in the planning process?

**Legal:** Whether the jurisdiction has the legal authority to implement the actions, or whether the jurisdiction must pass new laws or regulations, is important in determining how the mitigation action can be best carried out.

### **Considerations:**

**State Authority:** Does the state have authority to implement the action?

Existing Local Authority: Are proper laws, ordinances, and resolutions in place to implement

the actions?

**Potential Legal Challenge:** Is there a technical, scientific, or legal basis for the mitigation action (i.e. does the mitigation actions "fit" the hazard setting)? Are there any potential legal consequences? Is the action likely to be challenged by stakeholders who may be negatively affected?

**Economic:** Economic considerations must include evaluation of the present economic base and projected growth. Cost-effective mitigation actions that can be funded in current or up-coming budget cycles are more likely to be implemented than actions requiring general obligation bonds or other instruments that would incur long-term debt to a community.

#### **Considerations:**

**Benefit of Action:** What benefits will the action provide?

**Cost of Action:** Does the cost seem reasonable for the size of the problem and the likely benefits? What burden will be places on the tax base or local economy to implement this action?

**Contributes to Economic Goals:** Does the action contribute to other community economic goals, such as capital improvements or economic development?

**Outside Funding Required:** Are there currently sources of funds that can be used to implement the action? What proposed actions should be considered by be "tabled" for implementation until outside sources of funding are available?

**Environmental:** Impact on the environment is an important consideration because of public desire for sustainable and environmentally healthy communities. Also, statutory considerations, such as the National Environmental Policy Act (NEPA), need to be kept in mind when using federal funds.

### **Considerations:**

**Affects Land/Water Bodies:** How will this action affect land/water?

**Affects Endangered Species:** How will this action affect Endangered Species?

Affects Hazardous Materials and Waste Sites: How will this action affect Hazardous

Materials and waste sites?

**Consistent with Community's Environmental Goals:** Is this action consistent with community environmental goals?

**Consistent with Federal Laws:** Is the action consistent with Federal Laws, such as the National Environmental Policy Act (NEPA)?

# STAPLEE Evaluation Process for Mitigation Actions

A worksheet for the STAPLEE evaluation process was provided in the FEMA mitigation planning guidance. A worksheet is completed for each chosen action. Scoring uses a plus (+) for favorable evaluation for each consideration, a negative (-) for less favorable evaluation, and N/A for considerations that do not apply. Space for comments, benefit of action, source of funding/cost of action, responsible party, and timeframe for completion are also completed for each action.

## Example of STAPLEE Worksheet

### **Action ID:**

### **Action considered:**

STAPLEE Criteria	Soc		Те	T	cal	Adm	<b>A</b>	rative	F	P olitica	nl		<b>L</b> Legal			_	E iomic			Env	E	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	ong-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	ion	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	
						31							1										

**Comments:** 

**Benefit:** 

**Cost/Funding Source:** 

**Responsible Party:** 

**Timeframe for Completion:** 

Anı	nen	div	IV-2
$\Delta \mathbf{p}$	DCIII	ula	1 V -2

APPENDIX IV-2 CITY OF DAVENPORT HAZARD MITIGATION ACTION COMPARISON TABLE

# City of Davenport Hazard Mitigation Action Comparison Table

ID#	Implemented/ On-going	Completed	Goals	City Plan Incident #	County Plan Incident#	Action Strategy	Action Measures	Keep As Is	Reworded or Consolidated	Remove from List	New Action
1	х		1	2	4	Fund and expand Duck Creek early warning system	ES		х		
2	x		1, 4	1,2,3,5, 6,7,8,9	1,2,3,4,5,9, 11,12,13,14	Enhance communication regarding emergency road closures	ES, PE		x		
3	х		1, 4	2,3,5,7	1,2,3,4,5, 8,9,10,11, 12,13,14	Enhance communication regarding weather/hazard emergencies	ES, PE		х		
7	x		4	2,3,5,7,9	4,5,12	Review/update process for notifying of warnings, shelters and recovery assistance	ES, PE		x		
9	x		5	ALL	ALL	Review/update and coordinate emergency response plans	ES		x		
10	х		5	4	6,7	Review/enhance redundant/back-up communication options	ES				
12	X		5	2,5,7	4,9,12	Improve damage assessment process	ES		X		
13	X		3, 5	ALL	ALL	Scenario plan/practice for disaster/hazard response	ES		x		
15	x		1, 5	1,6,8,9	1,2,3,11, 13,14	Continue HAZMAT program	ES				
17	x		2	2,7,9	1,12,14	Enhance GIS use in identifying property subject to hazards	PM, PE, NR		x		
18	x		2	2,7	4,12	Continue/expand City Flood Acquisition Program	PM, SP		x		
19	x		2,3	2,7	4,12	Revise City codes regarding enhanced floodplain and stormwater regulations	PM, PP		x		
23	X		3, 5	2,5	4,8	Partner with other agencies on stormwater and flood mitigation demonstration projects	PE, NR		X		
25	x		3	2,7	4,12	Pursue USACE funding for technical studies (creeks & rivers)	PM, NR		x		

ID#	Implemented/ On-going	Completed	Goals	City Plan Incident #	County Plan Incident#	Action Strategy	Action Measures	Keep As Is	Reworded or Consolidated	Remove from List	New Action
28	X		1, 2, 4	2,7	4,12	Continue NFIP and CRS compliance	PM, PE, NR		x		
30	x		1.4	ALL	ALL	Work with social agencies to identfy at risk/vulnerable populations	PM, ES		x		
37	x		1, 5	ALL	ALL	Coordinate with other agencies regarding hazard threats and response assistance	PE, ES		x		
38	x		2, 4	1,6	1,2,3,11,13	Review transportation routes for conflicts, hazard and warning notifications potentials	PM, SP		x		
45	X		1, 4	2,7	4,12	Review mitigation options and hazard plans with vulnerable businesses	PP, PE		x		
49	x		1, 2	2,7	4,12	Investigate funding sources and programs for commerial and industrial hazard mitigation (floodproofing)	PP, PE		x		
51	x		3	2	4	Continue/enhance creek inspection and stabilzation programs	NR, SP				
53	х		1, 3	7	12	Complete IowaAmerican flood control project	SP				
55	x		3	3,5	5,8,9,10	Partner with MidAmerican Energy regarding priortizing street clearing for power restoration	ES				
58	X		1, 3	2,7	4,12	Improve Garden Addition levee system	SP				
61	х		2	2,3,5,7	4,5,9,12	Review, enhance and enforce all City codes with respect to all hazards	PM, PP, PE		X		
79	x		4, 5	ALL	ALL	Enhance emergency communications to critical facilities	PE, ES				
80	x		4	ALL	ALL	Review/enhance public education with respect to all hazards	PE				

412

An	pen	dix	IV-	3
$\Delta \mathbf{p}$	hen	ula	T A -	U

APPENDIX IV-3 COMPLETED INDIVIDUAL JURISDICTION STAPLEE FORMS

# Completed Individual Jurisdiction STAPLEE Forms

Jurisdiction: Bettendorf

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	Soc	S cial	Te	T echnica	al	Adn	A ninistra	ative	P	P Politica	al		L Legal			Eco	E nomi	c		Env	E zironi	ment	
Consideration s →	e	Segment						IS					ty	ıge			ic Goals	red		Species	Sites	munity S	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operation	Political Support	Local Champion	Public Support	State Authority	Existing Local Authori	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Si	Consistent w/ Commu Environmental Goals	Consistent w/ Federal L
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Hazardous materials program currently requires businesses to track hazardous materials

**Benefit:** Preplanning for an incident at these locations will be easier when quantities are known **Cost/Funding Source:** General Fund or Enterprise Fund for specific program. Contingent on

funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 1.2

**Action considered:** Create detour and road closure plans for flooded areas

STAPLEE Criteria	Soc	,	Te	T echnic	cal	Adn	A ninist	rative		P Politica	ıl		L Lega	l			E omic			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	
	+	+	+	n	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n	+	+	n/a

**Comments:** Current practices exist for this operation

**Benefit:** Quick reaction to establish barriers to flood waters potential to impact properties

**Cost/Funding Source:** General Fund and Emergency Fund, potential for federal reimbursement Contingent on funding availability.

**Responsible Party:** Public Works and Community Development

Timeframe for Completion: Ongoing

Action ID: 1.3

**Action considered:** Encourage use of NOAA weather radios

STAPLEE Criteria	Soc	S cial	To	T echnic	cal	Adn	A ninist	trative	P	P Politica	ıl		L Legal				E nomic	:		Envi	E iron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a

**Comments:** Best way to receive immediate updates from the Weather Bureau uninterrupted

Benefit: Radios are inexpensive and are capable of more uninterrupted communication

**Cost/Funding Source:** Provide reminders through City controlled media (websites and city television channel) Contingent on funding availability.

**Responsible Party:** Public Information Officer, Other Departments upgrading websites

**Timeframe for Completion:** Ongoing

Action ID: 1.4
Action considered: Identify potential treatment locations for biological, radiological and chemical exposure

STAPLEE Criteria	Soc		Te	T echni	T chnical A		A ninis	trative	F	P Politica	al		L Legal			_	E iomic			Env	E iron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	_	-	-	+	n/a	+	+	+	+	+	+	+	_	+	n/a	+	+	n/a

**Comments:** For large scale exposure to biological, radiological and chemical agents

**Benefit:** Hospitals and other areas suited for treating exposure to permit coordinated treatment **Cost/Funding Source:** General Fund, potential grants. Contingent on funding availability.

Responsible Party: Administration, Fire and Police. Potentially School System

Action ID: 1.5
Action considered: Provide treatment locations for pandemic disease and fixed radiological incident

STAPLEE Criteria	Soc		Te	T echnic	cal	Adn	A ninist	trativ	P	P Olitica	al		L Lega	1		Econ				Env	E ironn	ent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	nsistent w/ Federa
	+	+	+	+	+	-	+	-	+	+	+	+	+	+	+	+	+	_	+	n/a	n/a	+	+

**Comments:** For large scale exposure to biological, radiological and chemical agents

**Benefit:** Hospitals and other areas suited for treating exposure permit coordinated treatment

Cost/Funding Source: General Fund, Additional Funding from Federal Government

Contingent on funding availability.

Responsible Party: Administration, Fire and Police. Potentially School System

**Timeframe for Completion:** 0-5 years

Action ID: 1.6
Action considered: Encourage certain routes to be used for transportation of hazardous materials

STAPLEE Criteria	Soc		Te	T echnic	cal	Adn	A ninist	trativ	e F	P Politi	cal	I	L Legal			Econ				Env	E ironr	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	w/ F
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Promote safer transportation of hazardous materials away from vulnerable areas

**Benefit:** Protect residential and important environmental areas and limit dangerous routes

**Cost/Funding Source:** General Fund. Contingent on funding availability.

**Responsible Party:** Public Works, Fire Department and Community Development

Action ID: 1.7
Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria	Soc		To	T echnic	cal	Adn	A ninist	trative	P	P Politica	ıl	,	L Legal			-	E nomic	:		Eı	E nviron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	n/a	+	n/a

**Comments:** City uses a brine mix to lay down on streets before a snow or ice event

Benefit: Pre treatment does not permit snow or ice layer to form as easily, fewer traffic

incidents

**Cost/Funding Source:** General Funding Overtime. Contingent on funding availability.

**Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

Action ID: 1.8

Action considered: Encourage those dependent on oxygen extractors to install back-up generators

STAPLEE Criteria	Soc	•	Te	T echnic	al	Adn	A ninistr	ative	I	P Politica	ıl		L Legal			I Econ	ע			Env	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	ν/ F
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a	+	+	n/a

**Comments:** Life support will be needed to help those with no backup generators during power outage.

Benefit: First Responders will be able to attend other calls for help

**Cost/Funding Source:** General Funding. Contingent on funding availability.

Responsible Party: Public Information Officer, Fire Department

Action ID: 1.9
Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria		S ocial	Te	T echnic	cal	Ad	A minis	trativ	P	P Politica	ıl		L Legal	l		Eco	E nomi	ic		E	E nviron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	n/a	+	n/a

**Comments:** Plant monitoring through Parks Dept. for streets, otherwise Code Enforcement

Benefit: Used to prevent windstorm damage and spread of plant disease

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Parks Department, Community Development (Code Enforcement), Public

Works (Storm Damage) Private parties to do trimming and removal on private property

**Timeframe for Completion:** Ongoing

Action ID: 2.1

Action considered: Create additional railroad right-of-way separation requirements from residential areas

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Ad	A minis	trative	P	P Politica	ıl	]	L Legal			Eco	E nomi	ic		En	E viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Modify ordinances to Increase buffer areas to provide at least current right-of-way

Benefit: By increasing separation between these areas, fewer residences will be affected

Cost/Funding Source: General Fund (Personnel). Contingent on funding availability.

Responsible Party: Legal, Community Development, Fire Department, and potentially Public

Works

Action ID: 2.2

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State Iowa Model Code

STAPLEE Criteria		S cial	Те	T echnic	cal	Adı	A minis	strativ	ı	P Politic	cal		L Leg	al		Ecc	E onomic	:		E	E nviror	ment	
Considerations -	e	egment						St					ty	ıge			ic Goals	ired		Species	Sites	ınity	Laws
For Alternative Actions	Community Acceptance	Effect on Population So	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Si	Consistent w/ Community Environmental Goals	Consistent w/ Federal I
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	n/a	n/a	+	n/a	n/a	+	+

### **Comments:**

Benefit: NFIP participation allowed for federally subsidized flood insurance for the residents of

Bettendorf

**Cost/Funding Source:** Staff Time. Contingent on funding availability.

**Responsible Party:** Floodplain Manager **Timeframe for Completion:** Ongoing

Action ID: 2.3

Action considered: Maintain controlled burn measures and procedures implemented by fire

department

STAPLEE Criteria	So	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl	]	L Legal	l		Eco	E nom	ic		E	I nviro	nment	
Considerations  For Alternative Actions	ommunity Acceptance	Effect on Population Segment	chnical Feasibility	ong-term Solution	econdary Impacts	taffing	nding Allocated	Maintenance/Operations	Political Support		Public Support	tate Authority	xisting Local Authority	Potential Legal Challenge	enefit of Action	st of Action	ontributes to Economic Goals	utside Funding Required	Effect on Land/Water	Effect on Endangered Species	ct on HAZMAT Sites	nsistent w/ Community vironmental Goals	Consistent w/ Federal Laws
	ŭ	Ef	Те	Ϋ́	Se	Sta	Fu	X	Ро	Ľ	Pu	St	Ex	Ро	Be	ŭ	ŭ	Õ	ΕË	E	Effe	Co	ဘ
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	+	+	+	n/a

**Comments:** Rural land owners alerting Bettendorf Fire Department about controlled burns.

Permit process

**Benefit:** Reducing the incidents of damaged property and potential loss of life **Cost/Funding Source:** General Fund. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 2.4

<b>Action considered:</b>	Requir	re utility	com	oanies	mark a	pprox	imate	utility	locations	of t	pipelines	S
11001011 0011510101						•P P • • • •			1000010110	~ - 1	01001110	_

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal			Eco	E nomi	ic		En	I viro	nment	
Considerations		nt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	_	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Require certain markings for utilities within City limits with universally accepted signs

Benefit: Constructive notice to all in area not to dig or interfere with area marked for pipeline

Cost/Funding Source: General Fund. Contingent on funding availability.

Responsible Party: Legal, Public Works or Community Development

**Timeframe for Completion:** Ongoing (Require ordinance update unless statute or ordinance is in place)

Action ID: 2.5
Action considered: Adopt and enforce current building codes

STAPLEE Criteria	Se	S Social		T Technical		A Administrative			P	P Political		L Legal			E Economic				E Environment				
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Updates to IBC are consistently made by Bettendorf's Building Department, City Council

**Benefit:** Fire safety, material standards, energy efficiency and building design are improved **Cost/Funding Source:** General Funding and Building Permit Fee Revenue. Contingent on funding availability.

**Responsible Party:** Building Department Community Development **Timeframe for Completion:** Ongoing (Every 2-3 years updates made)

Action ID: 2.6
Action considered: Educate public about plant disease, infestation and plant removal techniques

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl	]	L Legal	l		I Econ	_	c		Env	E viror	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Let public know of certain infestations and proper removal of such diseased vegetation

**Benefit:** To stop further problems with insect and plant pathogens spreading **Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Parks Department, Iowa Extension Office and Iowa State Univ. Public

Inform on Website

Timeframe for Completion: Ongoing

Action ID: 2.7
Action considered: Ensure hazardous materials sites are monitored

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politic	al		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+

**Comments:** Hazardous materials program currently requires businesses to track hazardous materials

**Benefit:** Preplanning for an incident at these locations will be easier when quantities are known **Cost/Funding Source:** General Fund or Enterprise Fund for specific program. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 2.8

Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal			Eco	E nom	ic		En	I viro	nment	
Considerations  For Alternative	ceptance	Population Segment	Feasibility	Solution	Impacts		ıted	perations	ırt	u			Authority	Challenge	on		Economic Goals	g Required	and/Water	Endangered Species	MAT Sites	Community Goals	Federal Laws
Actions	Community Ac	Effect on Popul	Technical Feasi	Long-term Solu	Secondary Imp	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local	Potential Legal	Benefit of Action	Cost of Action	Contributes to ]	Outside Funding	Effect on Land	Effect on Enda	Effect on HAZ	Consistent w/ Environmental	Consistent w/ F
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** City ordinances provide development and infrastructure requirements

**Benefit:** Development areas with these necessities are easier to support during an emergency **Cost/Funding Source:** Capital Fund, Assessment waivers. Contingent on funding availability.

**Responsible Party:** Public Works, Fire, and Community Development

Timeframe for Completion: Ongoing

Action ID: 2.9
Action considered: Develop and implement storm water regulations and drainage plans

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	E onment	
Considerations  For Alternative	ceptance	Population Segment	Feasibility	Solution	Impacts		cated	)perations	ort	uc			Authority	Challenge	ion		Economic Goals	ng Required	/Water	Endangered Species	MAT Sites	Community Goals	Federal Laws
Actions	Community Ac	Effect on Popu	Technical Feas	Long-term Sol	Secondary Imp	Staffing	Funding Alloca	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local	Potential Legal	Benefit of Action	Cost of Action	Contributes to	Outside Funding	Effect on Land/	Effect on Enda	Effect on HAZ	Consistent w/ Environmental	Consistent w/1
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Since 1991, the City has had various ordinances regarding storm water management

**Benefit:** During flooding rains, storm water drainage can be moderated with certain measures **Cost/Funding Source:** General Fund, Capital Improvements Project Fund and some grants. Contingent on funding availability.

**Responsible Party:** Public Works and Community Development

Action ID: 3.1
Action considered: Encourage planting of more drought resistant landscape

STAPLEE Criteria	Se	S ocial	Те	T echnic	cal	Adı	A ninist	rative	P	P Olitica	ıl	]	L Legal	l		Eco	E nomi	ic		En	E viron	ment	
Considerations		Segment												0			Goals	ф		pecies	S	ty	aws
For Alternative Actions	Community Acceptance	Effect on Population Segr	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	-	+	n/a	n/a	+	n/a

Comments: To promote water conservation, drought resistant landscape may be planted

**Benefit:** The planting of drought resistant vegetation would require less water usage

Cost/Funding Source: General Fund or Potential Grant. Contingent on funding availability.

Responsible Party: Parks Department (Trees Our Us Committee) or Public Works

**Timeframe for Completion:** 0-5 years

Action ID: 3.2

Action considered: Educate public about water conservation measures such as low flow plumbing devices or reuse grey water for irrigation

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl	]	L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	-	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Providing information for water reuse or the installation of water conserving devises

Benefit: Less use of water during drought means less stress on the water processing system

Cost/Funding Source: General Fund. Contingent on funding availability.

Responsible Party: Public Works and/or Community Development (Building Department)

**Timeframe for Completion:** 0-5 years

Action ID: 3.3
Action considered: Analyze high traffic accident locations for possible solutions

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	al		L Legal			Eco	E nom	ic		Env	E iron	ment	
Considerations		gment												e.			Goals	pe		Species	Si	ity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a

**Comments:** Search for potential congestion, signaling and speed zone problems.

Transportation Plan

Benefit: Offer potential traffic pattern changes that keep collisions minimized

**Cost/Funding Source:** Consultant, Traffic Signaling, Infrastructure, (Capital Projects)

Personnel (General Fund). Contingent on funding availability. **Responsible Party:** Public Works, Community Development

**Timeframe for Completion:** 5-10 years

Action ID: 3.4
Action considered: Conduct safety inspections of levees and gain "certification of protection" through the U.S. Army Corps of Engineers

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** This process can maintain protection of areas deemed normally to be in flood areas

Benefit: By certifying the levy, flood insurance premiums are removed for a large areaCost/Funding Source: General Fund or Grants. Contingent on funding availability.Responsible Party: Community Development, Public Works, Corps of Engineers

**Timeframe for Completion:** Ongoing (Just completed 2011)

Action ID: 3.5
Action considered: Be proactive with virus protection and shore back up data in offsite location

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	E nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: City IT department backs up files and uses updated antivirus software. Ongoing

Benefit: Files are kept for referral and protected from tampering or information theft

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Information Technology, City of Bettendorf

**Timeframe for Completion:** Ongoing

Action ID: 3.6
Action considered: Assist in the promotion of vaccination programs with local, state and federal officials

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl	]	L Legal	l		F Econ	_	e		E	E Inviron		
Considerations		int															oals			es			
<b>→</b>	nce	Segment	y					ions					ority	Challenge			omic G	equired	er	ed Specie	Sites	ımunity .s	al Laws
For Alternative Actions	Community Acceptance	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operati	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Chal	Benefit of Action	Cost of Action	Contributes to Econd	Outside Funding Re	Effect on Land/Wate	Effect on Endangered	Effect on HAZMAT	Consistent w/ Comm Environmental Goals	Consistent w/ Federal
	+	+	_	+	+	-	-	-	+	n/a	+	+	+	+	+	+	+	-	+	n/a	n/a	+	n/a

**Comments:** Need to make sure public is properly inoculated to prevent disease

Benefit: Lessen mortality and negative side effects. Cut treatment costs

**Cost/Funding Source:** General Fund, Additional Funding from Federal Government.

Contingent on funding availability.

Responsible Party: Administration, Public Information Officer, and County Health Department

**Timeframe for Completion:** 0-5 years

Action ID: 3.7
Action considered: Ensure all critical municipal facilities have backup generators

STAPLEE Criteria	Se	S ocial	Те	T echnical Adı		A minist	rative	F	P Politica	al		L Legal			Eco	E nom	ic		En	I viro	nment		
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: Power backup generators are at City Hall and Maintenance Facility

Benefit: Power outages overcome to keep these sites operating to assist public

Cost/Funding Source: Capital Improvements Fund (Equipment) General Fund. Contingent on

funding availability.

**Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

Action ID: 4.1
Action considered: Implement wildfire prevention program

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	ı		Eco	E nom	ic		Er	F viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	-	+	+	+	+	n/a

**Comments:** Educating rural land owners about controlled burns and fire hazards

**Benefit:** Reducing the incidents of damaged property and potential loss of life **Cost/Funding Source:** General Fund. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** 0-5 years

Action ID: 4.2
Action considered: Educate the public on the dangers of lightning

STAPLEE Criteria	So	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal	ı		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Indicate to public the vulnerability of exposure to lightning and safety precautions

**Benefit:** Reduced deaths and medical costs associated with lightning. Fire safety awareness **Cost/Funding Source:** General Funding, Potential grant funding. Contingent on funding

availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** 0-5 years

Action ID: 4.3
Action considered: Educate people about NFIP and the floodplain in general

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl	]	L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations		ant															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Provide people with information on flood insurance for entire community

**Benefit:** Compensation program for area from damages caused by river flooding /flash flooding

Cost/Funding Source: FEMA administered by city. Contingent on funding availability.

Responsible Party: Community Development

Action ID: 4.4
Action considered: Utilize ITS signs to communicate safe driving messages and to alert drives to hazardous conditions

STAPLEE Criteria	Se	S ocial	Те	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	1		Ecor	E 10mi	c		En	E viron	ment	
Considerations		ınt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** State to be alerted by local first responders to use signs

**Benefit:** Traffic can be slowed to safe speed or detoured from incident site **Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Police or Fire Department or County Dispatch notifying State IDOT

Timeframe for Completion: Ongoing

Action ID: 4.5Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	ı		Eco	E nomi	c		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a

**Comments:** Provide some areas for those exposed to extreme weather conditions or power outage

**Benefit:** Lessen deaths and exposure conditions of citizens

**Cost/Funding Source:** General Fund. Contingent on funding availability. **Responsible Party:** City Administration, Parks Department, School Systems

Action ID: 4.6
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	So	S ocial	Те	T echnic	cal	Adı	A ninist	rative	F	P Politica	al		L Legal			Ecor	E iomi	ic		En	E viro	nment	
Considerations		ınt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a

Comments: Better allocation of resources for public. Use media to alert public

Benefit: Keep people in safer locations. Require fewer rescues by first responders. Less plowing

**Cost/Funding Source:** General Fund. Contingent on funding availability. **Responsible Party:** Public Works, Fire, Police, and Public Information

**Timeframe for Completion:** Ongoing

Action ID: 4.7
Action considered: Educate the public on maintaining a fire safe home or business

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal			Eco	E nom	ic		En	I viro	nment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

### **Comments:**

**Benefit:** Lessen the number of fires by having residents and businesses remove hazards **Cost/Funding Source:** General Fund, Grant Funds. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 4.8

Action considered: Educate the public on the danger of tornados and what to do during a tornado

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	al		L Legal	l		Eco	E nomi	ic		En	I viro	E onment	
Considerations		Segment											,	e			Goals	þ		pecies	Si	ity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challeng	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Provide updates on tornado preparedness as season approaches. Use media to alert public

**Benefit:** Quicker reactions by residents using safety procedures will prevent injuries / fatalities **Cost/Funding Source:** General Fund, possible grant. Contingent on funding availability.

Responsible Party: Fire Department, Public Information Officer

**Timeframe for Completion:** 0-5 years

Action ID: 4.9
Action considered: Communicate the locations of community shelters

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	I	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** People whose homes are not inhabitable are given an alternative to braving the elements

**Benefit:** Provisions for shelters keep people from becoming emergency response incidents

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Public Information Officer

Action ID: 4.10
Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Keep major arterials and collector streets free of parking. Use snow emergency policy

Benefit: Plowing is made more viable by having fewer vehicle obstacles on the streets

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Public Works, Public Information Officer

**Timeframe for Completion:** Ongoing

Action ID: 4.11
Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	ı		Eco	E nomi	ic		En	I viro	nment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

Comments: Fire Prevention Bureau or other Fire Department personnel provide service

Benefit: Protect property and lives through prevention and emergency planning

Cost/Funding Source: General Fund, potential grants. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 4.12
Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	E onment	
Considerations		Segment											у	ge			c Goals	pə.		pecies	es	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challeng	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal L
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Fire Department already has Smoke detector program in place

Benefit: Alarm gives residents an earlier amount of time to leave burning structure

Cost/Funding Source: General Fund. Contingent on funding availability.

Responsible Party: Fire Department already has smoke detector program in place

Timeframe for Completion: Ongoing

Action ID: 4.13
Action considered: Educate the public on what river flood levels o the Mississippi and Wapsi actually mean

STAPLEE Crit	teria		S ocial	Te	T echnic	cal	Adı	A minist	rative	I	P Politica	ıl		L Legal	ı		Eco	E nom	ic		En	I viro	nment	
Consideration	ns		ınt															Goals			ies			
For Alternative Actions	<b>.</b>	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Helps orient people as to the actual river depths for boating and flood encroachment

**Benefit:** Gages of the severity of the flood impact for individuals living near bodies of water

**Cost/Funding Source:** General Fund. Contingent on funding availability.

**Responsible Party:** Flood Plain manager **Timeframe for Completion:** Ongoing

Action ID: 4.14
Action considered: Educate the public about sandbagging techniques and flood prevention technologies

STAPLEE Criteria	Se	S	T Technical Adr		A ninist	rative	F	P Politica	al	]	L Legal			Eco	E nom	ic		En	I viro	nment			
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Bagging and flood prevention to keep water away from structures

Benefit: Lessen structural damage for homes and businesses near bodies of water

Cost/Funding Source: General Funding or Capital Projects. Contingent on funding availability.

**Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

Action ID: 4.15
Action considered: Educate the public on the dangers of flash flooding

STAPLEE Criteria	Se			A ninist	rative	P	P Politica	al		L Legal	ı		Eco	E nomi	ic		En	I viro	E nment				
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	-	+	n/a	+	+	n/a

Comments: Numerous flood zones in Bettendorf potential for 1990 type incidents repeating

**Benefit:** Evacuation, protection, and response measures can be in place prior to incident

Cost/Funding Source: General Fund, potential grant fund. Contingent on funding availability.

Responsible Party: Public Works, Community Development, Fire, Police, and Public

Information Office

Action ID: 4.16
Action considered: Promote state and federal remediation programs for windstorm and animal/crop/plant disease incidents

STAPLEE Criteria	Se	S ocial	Те	T echnic	cal	Adı	A ninist	rative	F	P Politica	al		L Legal			Eco	E nomi	ic		En	I viro	nment	
Considerations		ınt															als			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	-	+	+	+	_	_	+	+	n/a	+	+	+	+	+	+	+	-	+	+	+	+	+

**Comments:** Relief efforts needed due to catastrophic natural causes that require federal aid **Benefit:** Streamline application for affected populations by having local govt assist process **Cost/Funding Source:** General Fund, Federal Grant (not identified). Contingent on funding availability.

Responsible Party: Public Works, Community Development

**Timeframe for Completion:** 0-5 years

Action ID: 4.17
Action considered: Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	al		L Legal			Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative	cceptance	ation Segment	bility			ated	oerations	t	ı			Authority	Challenge	'n		Economic Goals	g Required	Water	gered Species	AAT Sites	Community Goals	Federal Laws	
Actions	Community Acc	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocat	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local A	Potential Legal	Benefit of Action	Cost of Action	Contributes to E	Outside Funding	Effect on Land/	Effect on Endangered	Effect on HAZA	Consistent w/ C Environmental C	Consistent w/ Fe
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	_	+	n/a	+	+	+

**Comments:** Hazardous materials program currently requires businesses to track hazardous materials

**Benefit:** Preplanning for an incident at these locations will be easier when quantities are known **Cost/Funding Source:** General Fund or unidentified source (grant). Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** 0-5 years

Action ID: 4.18
Action considered: Educate the public on river flooding and what they need to do when an event occurs

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal	l		Eco	E nom	ic		En	I viro	nment	
Considerations		ent															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spec	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Process in place with coordination of Departments to assist Bettendorf residents

Benefit: Evacuation, protection, and response measures can be in place prior to incident

Cost/Funding Source: General Fund, potential grant fund. Contingent on funding availability.

Responsible Party: Public Works, Community Development, Fire, Police and Public

Information Office

**Timeframe for Completion:** Ongoing (Program underway used in 2011)

Action ID: 4.19
Action considered: Educate the public on how to minimize damage to their residences and businesses

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations		nent															Goals	_		cies		y	vs
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spec	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

Comments: River flooding protection procedures already provided by city

Benefit: Property rebuilding and insurance dollar payout lessened

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Public Works and Community Development

## Action ID: 4.20

**Action considered:** Consider the use of social media such as Twitter, Facebook or mass texting systems to notify the public on hazardous events

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations		ent															oals			ies			,
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: Another information outlet that adapts to changing technology

**Benefit:** Most cell phones have the capability of receiving these messages

**Cost/Funding Source:** General Fund or Capital Fund. Contingent on funding availability.

Responsible Party: Information Technology Department

**Timeframe for Completion:** 0-5 years

Action ID: 4.21

**Action considered:** Create and/or regularly review procedures for evacuation due to chemical, biological, radiological, enemy attack or flood

STAPLEE Criteria		S ocial	Те	T   Acceptance   A			A minist	rative	I	P Politica	ıl		L Legal	1		Eco	E nom	ic		En	I viro	nment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	_	-	_	+	n/a	+	+	+	+	+	+	+	-	+	n/a	+	+	n/a

**Comments:** Show what routes would be proper for evacuation

Benefit: Better evacuation routes for citizens means traffic is more organized

Cost/Funding Source: General Fund or Potential Grant. Contingent on funding availability.

Responsible Party: Public Works and Police Department (potential consultant)

**Timeframe for Completion:** 0-5 years

Action ID: 4.22 **Action considered:** Monitor water levels and notify the public when flooding will occur and where

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl	]	L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support		Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: Process used during recent 2011 flood, internet used

Benefit: Public made aware of impending flood area and duration of flood Cost/Funding Source: General Fund. Contingent on funding availability.

**Responsible Party:** Flood Plain Administrator

Timeframe for Completion: Ongoing

Action ID: 5.1 **Action considered:** Make sure hazardous materials sites keep their inventory of materials current

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal			Eco	E nom	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+

Comments: Hazardous materials program currently requires businesses to track hazardous materials

**Benefit:** Gage quantities at a site prior to an incident response, warning first responders

Cost/Funding Source: General Fund or Enterprise Fund for specific program. Contingent on

funding availability.

Responsible Party: Fire Department Timeframe for Completion: Ongoing

Action ID: 5.2

Action considered: Have regular training for water rescue and updated equipment

STAPLEE Criteria	Se	S ocial	Те	T echnical Ad		Adı	A minist	rative	F	P Politica	ıl		L Legal			Eco	E nom	ic		En	I viro	nment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Most waterway involvement by the city is rescue related. No education occurs

**Benefit:** Trained staff ready to respond quickly to water incident

Cost/Funding Source: General and Capital Fund. Contingent on funding availability.

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 5.3
Action considered: Maintain mutual aid response policy established by local agencies

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal			Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a

**Comments:** Mutual agreements are in place for Scott County and Illinois QC Fire Departments and MABAS Division 43. Quad City Emergency Planning Committee meets monthly

**Benefit:** Coordination of actions by localities permits more coordinated response to large incident

Cost/Funding Source: General Fund, potential grants. Contingent on funding availability.

**Responsible Party:** Fire Department/Police Department

Action ID: 5.4
Action considered: Ensure First Responders have rescue plans for severe weather

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	E nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Plans prescribe standard operating procedures and parameters for practice

Benefit: More immediate coordinated action within city departments and among communities

**Cost/Funding Source:** General Fund. Contingent on funding availability.

Responsible Party: Police, Fire, Public Works, and Community Development Departments

**Timeframe for Completion:** Ongoing

Action ID: 5.5
Action considered: Encourage First Responders to share resources and equipment

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations		ınt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Specie	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Coordination of mutual aid to communities

**Benefit:** Equipment needed for mass emergencies is expensive, is easier to share than purchase **Cost/Funding Source:** Vehicle Fund (Capital Fund?) General Fund for personnel. Contingent on funding availability.

**Responsible Party:** Police and Fire Departments, Potentially Public Works

Action ID: 5.6
Action considered: Maintain communication and training with military and law enforcement in case of enemy attack

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Politica	ıl		L Legal	l		Eco	E nomi	ic		En	I viro	nment	
Considerations		ınt															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	_	-	+	+	n/a	+	+	+	+	+	+	+	_	+	n/a	+	+	n/a

**Comments:** Law enforcement at local level and other departments involved

Benefit: Mobilization to react to the attack from a variety of city agencies by division of duties

Cost/Funding Source: General Fund, Potential Grants. Contingent on funding availability.

**Responsible Party:** Police, Administration, and other departments

**Timeframe for Completion:** 5-10 years

Action ID: 5.7
Action considered: Clear driveways of first responders in order to ensure quicker response times

STAPLEE Criteria		S ocial	Те	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Legal			Eco	E nom	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: Keep drive areas and streets near fire stations and city hall cleared for dispatching

**Benefit:** Dispatch delays to incident sites will have fewer delay issues

Cost/Funding Source: General Fund, Vehicle Replacement, Capital Projects. Contingent on

funding availability.

**Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

### Jurisdiction: Blue Grass

**Action ID: 1.1** 

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	al		L Lega	ıl		Eco	E nomic	:		Er	_	E onment	
Considerations		ınt															Goals			cies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	+	+	+	n/a	n/a

Comments: Assign staff in Fire Department to follow up annually

**Benefit:** Safety of First Responders

Cost/Funding Source: Minimal/staff time

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Promote use of NOAA weather radios

STAPLEE Criter	ria s	Social	Te	T chni	cal	Adm	A inistra	ative	Po	P olitica	al		L Legal	l	]		E nomic	e		En	E viron	ment	
Considerations		Segment						ıs					ity	əgu			nic Goals	ired		Species	Sites	unity	Laws
For Alternative Actions	Community Acceptance	Effect on Population So	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challer	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered	Effect on HAZMAT Si	Consistent w/ Community Environmental Goals	Consistent w/ Federal I
	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	+	n/a	-	n/a	n/a	n/a	n/a	n/a

**Comments:** About \$50

**Benefit:** Fast warning times

Cost/Funding Source: Minimal - Individual citizens

Responsible Party: Police, Fire

**Timeframe for Completion:** 0-5 years

Action ID: 1.3
Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria	So	S ocial	Te	T echnic	cal	Adı	A minist	rative	Po	P olitic	cal	I	L egal			Ec	E onom	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	n/a	+	+	+	+	n/a	+	+	+	+	+	n/a

**Comments:** Sewage lagoon, life stations need generators, research for grant sources

**Benefit:** Health & safety

**Cost/Funding Source:** Approximately \$5,000/generation. Need grant (SCRA?)

Responsible Party: Public Works, grant writers (Bi-State)

**Timeframe for Completion:** 0-5 years

Action ID: 2.1
Action considered: Join the National Flood Insurance Program

STAPLEE Criteria		S ocial	Те	T echnic	cal	Adı	A minist	rative	P	P Politica	al		L Lega	al		Eco	E nomi	c		Envi	E ronm	ent	
Considerations -		gment												e.			Goals	pg		Species	SS	ity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Federal L
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	+

**Comments:** 

Benefit: Flood Insurance available to community and businesses

**Cost/Funding Source:** Staff time/minimal **Responsible Party:** Mayor, Council, Clerk **Timeframe for Completion:** 0-5 years

Action ID: 2.2
Action considered: Ensure hazardous materials sites are monitored

STAPLEE Crite	ria s	S Social	To	T echnic	cal	Adı	A ninist	rative	F	P Politica	al		L Lega	ıl		Eco	E nomi	c		Env	E viron	ıment	
Considerations  For Alternative Actions	S Community Acceptance	  Indc	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	+	+	+	n/a	n/a

Comments: Assign staff in Fire Department to follow up annually

**Benefit:** Safety of First Responders

Cost/Funding Source: Minimal/staff time

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing

Action ID: 2.3
Action considered: Ensure hydrants are maintained and well identified

STAPLEE Criteria		S ocial	Те	T echnic	cal	Adı	A minist	rative	P	P Politic	al	1	L Legal			Eco	E nom	ic		En	E viron	ment	
Considerations		ınt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	_	+	n/a	-	n/a	n/a	_	+	-	+	n/a	n/a	n/a	n/a	n/a	n/a

Comments: Ask public to shovel out hydrants

Benefit: Safety

Cost/Funding Source: Minimal/Staffing/ already part of budget

Responsible Party: Fire Department Chief and Public Works Director

Action ID: 3.1
Action considered: Construct, retrofit, or maintain drainage systems to provide adequate and proper functioning systems to include sewage systems and retention/detention ponds

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P olitic	al	I	L egal			_	E nomic			En	I viro	nment	
Considerations		ınt															Goals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	_	+	+	n/a	+	n/a	+	+	+	+	n/a	+	+	+	+	+	n/a

Comments: Sewage lagoon, life stations need generators, research for grant sources

**Benefit:** Health & safety

**Cost/Funding Source:** Approximately \$5,000/generation. Need grant (SCRA?)

**Responsible Party:** Public Works, grant writers (Bi-State)

**Timeframe for Completion:** 0-5 years

Action ID: 4.1
Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	Se	S ocial	Te	T	cal	Adı	A minist	rative	Pe	P olitica	al	L	L Lega	ıl			E nomic			En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Warming shelter located in public safety building

**Benefit:** Health & safety

**Cost/Funding Source:** Minimal

Responsible Party: Fire, Police, Ambulance

Action ID: 4.2

Action considered: Educate the public on the dangers of tornados and what to do during a

tornado

STAPLEE Criteria		S ocial	Te	T echnic	cal	Adı	A mini	strati	P	P olitic	al		L Lega	ıl		Ec	E onomi	ic		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Put in newsletters, water bills, etc.

Benefit: Health and safety

Cost/Funding Source: Minimal/Staff time

Responsible Party: Clerk, Fire Chief, Police Chief, City Council

Timeframe for Completion: Ongoing

Action ID: 4.3

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria	Se	S	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Lega	ıl			E nomic	:		Env	E ironi	nent	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	+

**Comments:** Put in newsletters, water bills, etc.

**Benefit:** Health and safety

Cost/Funding Source: Minimal/Staff time

Responsible Party: Clerk, Fire Chief, Police Chief, City Council

Action ID: 4.4
Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria		S cial	Te	T chnic	al	Adı	A ninist	rative	P	P olitic	al	]	L Lega	al		Eco	E nomi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Put in newsletters, water bills, etc.

**Benefit:** Health and safety

Cost/Funding Source: Minimal/Staff time

Responsible Party: Clerk, Fire Chief, Police Chief, City Council

Timeframe for Completion: Ongoing

Action ID: 4.5
Action considered: Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria	Se	S ocial	Tec	T chnic	cal	Adm	A inistra	ative	I	P Politica	ıl	]	L Leg	al		Ecc	E onomi	ic		E	I nviro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	+	n/a	+	+	n/a	+	+	+	n/a	+	n/a

**Comments:** Collection **Benefit:** Health and safety

Cost/Funding Source: Waste Commission grant

Responsible Party: City Council

Action ID: 4.6
Action considered: Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal	l		Eco	E nom	ic		En	I viro	nment	
Considerations		ent															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spec	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

Comments: Obtain materials from Scott County EMA to share with community

**Benefit:** Health and safety of surrounding areas **Cost/Funding Source:** Minimal/staff time **Responsible Party:** Fire Chief/Hazmat sites **Timeframe for Completion:** 0-5 years

Action ID: 4.7
Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Te	T echni	ica	Adm	A ninistr	ative	P	P olitic	al	I	L Lega	l		Eco	E nomi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Benefit: Health and safety
Cost/Funding Source: Minimal
Responsible Party: Mayor, Council
Timeframe for Completion: 0-5 years

**Comments:** Establish network

Action ID: 5.1
Action considered: Make sure hazardous materials sites keep their inventory of materials current

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	ıl		L Leg	al		Ec	E onom	ic		En	I viro	nment	
Considerations		Segment												e			Goals	p		pecies	S	ity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challeng	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	+	+	+	n/a	n/a

Comments: Assign staff in Fire Dept. to follow up annually

**Benefit:** Safety of First Responders

Cost/Funding Source: Minimal/staff time

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing

Action ID: 5.2
Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	Se	S	Te	T echnic	cal	Adı	A minist	rative	F	P Politica	al		L Lega	ıl		Eco	E nomi	c		Env	E iron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a	n/a

**Comments:** No rescue plans in place for natural district

Benefit: Quicker response time

Cost/Funding Source: Minimal/staff time

Responsible Party: Department Heads and Mayor

**Timeframe for Completion:** 0-5 years

Action ID: 5.3
Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria	Se	S ocial	Tee	T chni	cal	Adm	A inistra	ative	F	P Politica	al		L Leg	al		Eco	E onomi	ic		En	E viro	E nment	
Considerations		Segment											,	e,			: Goals	pa		Species	SS	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	n/a	n/a	+	+	n/a	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a	n/a

Comments: 28E Agreement with Scott and Muscatine Counties

Benefit: Better understanding of available equipment

Cost/Funding Source: None
Responsible Party: City Council
Timeframe for Completion: Ongoing

# Jurisdiction: Buffalo

Action ID: 1.1

**Action considered:** Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echnic	cal	Adm	A inistr	ative	P	P olitical	l		L Legal	l		Eco	E nomi	c		Env	E ironr	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	_	-	+	n/a	+	+	+	+	+	-	n/a	+	n/a	n/a	n/a	+	n/a

## **Comments:**

Benefit: Reduces probability of injury or death due to hazard

Cost/Funding Source: Unknown at this time, grants would be needed

Responsible Party: City Council

**Timeframe for Completion:** 5-10 years

Action ID: 1.2
Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria		S cial	Т	T echni	cal	Adm	A inistra	ative	P	P Politica	al		L Leg	al		I Econ		e		Er	E viror	ment	
Considerations ->	ıce	Segment						suc					rity	enge			mic Goals	Required		Species	Sites	ommunity oals	Laws
For Alternative Actions	Community Acceptance	Effect on Population 5	<b>Technical Feasibility</b>	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challer	Benefit of Action	Cost of Action	Contributes to Economi	Outside Funding Requ	Effect on Land/Water	Effect on Endangered	Effect on HAZMAT S	Consistent w/ Comm Environmental Goals	Consistent w/ Federal
	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+	+	+	n/a	+	+	+	+	+	n/a	n/a	n/a	n/a

**Comments:** Generator needed on Well #1

Benefit: Enables Buffalo to keep critical functions and facilities operational during hazards

Cost/Funding Source: Approximately \$20,000 Responsible Party: Public Works Director Timeframe for Completion: 0-5 years

Action ID: 2.1

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria	Se	S ocial	Te	T echnic	cal	Adı	A minist	rative	P	P Olitica	ıl		L Legal				E nomic			Env	E vironi	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	w/F
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	+	n/a

### **Comments:**

**Benefit:** Provides flood insurance to citizens and businesses in Buffalo

**Cost/Funding Source:** Minimal/staff time **Responsible Party:** Floodplain manager **Timeframe for Completion:** Ongoing

Action ID: 3.1
Action considered: Replace or retrofit bridges and culverts to meet capacity requirements

STAPLEE Criteria		S cial	Т	T echni	cal	Adm	A inistra	ative	P	P Olitica	al	]	L Legal	l		Eco	E nom	ic		En	E	ment	
Considerations		nt															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	-	+	+	n/a	+	+	+	+	+	-	+	-	+	n/a	n/a	+	n/a

Comments: Replace bridge at 4th Street crossing and Ash Street

Benefit: This is used as an emergency road when HWY 22 is closed. Provides more efficient

and safer emergency response

**Cost/Funding Source:** Unknown at this time **Responsible Party:** Public Works Director

Timeframe for Completion: As funding becomes available

Action ID: 3.2

Action considered: Construct, retrofit or maintain levees, dams, floodwalls, culverts and floodgates to ensure adequate capacity and protection levels for property and critical facilities

STAPLEE Criteria						Admi	A nistr	ative	P	P Politica	al		L Lega	al			E nomic			Env	E viror	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	-	-	+	+	+	+	+	n/a	+	-	n/a	_	+	+	+	+	+

**Comments:** See MSA Storm Outfall Evaluation

**Benefit:** Reduce or eliminate backflow of Mississippi River into the storm sewers which

reduced flood damage and the closure of Highway 22

Cost/Funding Source: Approximately \$350,000. FEMA grants are needed

**Responsible Party:** Public Works Director **Timeframe for Completion:** 0-5 years

Action ID: 4.1
Action considered: Communicate the locations of community shelters

STAPLEE Criteria		S cial	Te	T chnic	al	Adn	A ninistr	ative	P	P olitic	al		L Leg	al			E nomic	:		Env	E zironi	nent	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	sistent w/ F
	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Provide information to citizens on where to go during hazard events

Benefit: Safe location for people to go, promotes health and safety of people

**Cost/Funding Source:** Minimal

**Responsible Party:** Clerk

Timeframe for Completion: Ongoing

Action ID: 4.2

**Action considered:** Use social media such as Twitter, Facebook or mass texting systems to notify the public on hazardous events

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitica	ıl		L Lega	ıl		-	E nomic			Env	E ironn	nent	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	-	+	n/a	+	+	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** More research needs to be conducted to implement this action

**Benefit:** Educates public on upcoming hazards

Cost/Funding Source: Unknown Responsible Party: Police Chief

**Timeframe for Completion:** 0-5 years

# Jurisdiction: Davenport

**Action ID: 1.1** 

Action considered: Fund and expand Duck Creek early warning system

STAPLEE Criteria	-	S cial	Те	T chn	ica	Adm	A ninistr	ative	Po	P olitica	ıl		L Legal	l		Econ	E iomi	c		Env	E ironi	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	T.
	+	+	+	+	+	n/a	+	+	+	n/a	+	n/a	+	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Provides lead time for warning and evacuation; reduces risk of loss of life

**Cost/Funding Source:** Grant & Local **Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

Action ID: 1.2

**Action considered:** Investigate funding sources and programs for commercial and industrial hazard mitigation (floodproofing)

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Lega	l		Ecor	E 10mi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Possible reduction in property damage, business disruption and potential loss of life

**Cost/Funding Source:** Grants **Responsible Party:** CPED

Action ID: 1.3
Action considered: Continue NFIP and CRS compliance

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninistra	ative	P	P olitical	l		L Legal	ı			E nomic			En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+

#### **Comments:**

**Benefit:** Enhances protection for floodprone properties; provides for reduced insurance rates for

citizens

**Cost/Funding Source:** N/A **Responsible Party:** CPED

Timeframe for Completion: Ongoing

Action ID: 1.4

**Action considered:** Improve Garden Addition levee system

STAPLEE Criteria		S cial	Te	T echni	ica	Adm	A ninist	rative	P	P olitic	al		L Lega	ıl		F Econ		c		Env	E vironr	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	-	+	+	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	n/a	n/a

### **Comments:**

**Benefit:** Provide enhanced protection for existing residential development; reduces potential for property damage and loss of life

Cost/Funding Source: Local

**Responsible Party:** Public Works **Timeframe for Completion:** 0-5 years

Action ID: 1.5
Action considered: Complete IowaAmerican flood control project

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitica	ıl	]	L Lega	ıl		I Econ	_	c		Env	E vironr	nent	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	1	+	+	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Protect water service for Davenport and surrounding communities

Cost/Funding Source: Grant

Responsible Party: IowaAmerican Water, PW, and USACE

**Timeframe for Completion:** 0-5 years

Action ID: 1.6
Action considered: Work with social agencies to identify at risk/vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninistra	ative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Reduces risk of loss of life; target warning and/or information

**Cost/Funding Source:** N/A **Responsible Party:** CPED

**Timeframe for Completion:** 0-5 years

Action ID: 1.7
Action considered: Review mitigation options and hazard plans with vulnerable businesses

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P litical	ı		L Legal	l		Eco	E nomi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	_	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a

### **Comments:**

Benefit: Possible reduction in property damage, business disruption and potential loss of life

**Cost/Funding Source:** N/A **Responsible Party:** CPED

**Timeframe for Completion:** 0-5 years

Action ID: 1.8

Action considered: Enhance communication regarding emergency road closures

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninistr	ative	P	P olitical	l		L Legal			Eco	E nomi	ic		En	I viro	nment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

### **Comments:**

**Benefit:** Provides warnings for emergency responders and evacuation route changes; reduced risk of loss of life

**Cost/Funding Source:** N/A

Responsible Party: Public Works, Police Department, Fire Department, and PIO

Action ID: 1.9
Action considered: Enhance communication regarding weather/hazard emergencies

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninistr	ative	P	P olitic	al	I	L Lega	1		Eco	E onomi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Benefit: Provides earlier and/or better warnings for emergency responders and public; reduced

risk of loss of life

**Cost/Funding Source:** N/A

Responsible Party: Public Works, Police Department, Fire Department, and PIO

Timeframe for Completion: Ongoing

Action ID: 1.10

Action considered: Coordinate with other agencies regarding hazard threats and response

assistance

STAPLEE Criteria		S cial	Те	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

**Benefit:** Reduces the potential of loss of life

**Cost/Funding Source:** N/A

**Responsible Party:** Scott County EMD **Timeframe for Completion:** Ongoing

Action ID: 1.11
Action considered: Continue HAZMAT program

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

## **Comments:**

Benefit: Provides emergency response for environmental hazards; reduces risk of loss of life

**Cost/Funding Source:** Local-Service fees

**Responsible Party:** Fire Department **Timeframe for Completion:** Ongoing

Action ID: 2.1
Action considered: Review, enhance and enforce all city codes with respect to all hazards

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		-	E nomic	2		En	E viron	ment	
Considerations  →  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	+	n/a	+	+	+	+	+	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a

## **Comments:**

Benefit: Provides for property protection, reduction in property damage and potential reduction

in loss of life

Cost/Funding Source: N/A Responsible Party: CPED, PW

Action ID: 2.2

Action considered: Enchance GIS use in dentifying property subject to hazards

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P oliti	cal		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	+	+	+	n/a	+	n/a	n/a

Benefit: Enhances notifications and mitigation activities; reduces risk of loss of life

**Cost/Funding Source:** N/A **Responsible Party:** IT-CPED

Timeframe for Completion: Ongoing

Action ID: 2.3
Action considered: Continue/expand City Flood Acquisition Program

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations	0	egment						s					y.	age			c Goals	red		Species	tes	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challeng	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Commu Environmental Goals	Consistent w/ Federal L
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Removes at risk property from floodplain

**Cost/Funding Source:** Local **Responsible Party:** CPED

Action ID: 2.4
Action considered: Revise city codes regarding enhanced floodplain and stormwater regulations

STAPLEE Criteria		S ocial	Te	T echn	ical	Adı	A minist	rative	I	P Politic	cal		L Lega	al			E nomic	:		En	E vironn	ent	
Considerations		ınt															Goals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	n/a	+	+	n/a	+	n/a	n/a	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	+

**Benefit:** Enhances protection for floodprone properties

**Cost/Funding Source:** N/A **Responsible Party:** CPED, PW

**Timeframe for Completion:** 0-5 years

Action ID: 2.5

**Action considered:** Review transportation routes for conflicts, hazard and warning notifications potentials

STAPLEE Criteria		S cial	Те	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		_	E nomic	•		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	+	n/a	n/a	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Potential for accident reduction

**Cost/Funding Source:** N/A **Responsible Party:** PW, IDOT

Action ID: 3.1
Action considered: Pursue USACE funding for technical studies (creeks & rivers)

STAPLEE Criteria		S ocial	Te	T echn	ical	Adı	A minis	strative	Po	P olitic	cal		L Legal	ı			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	n/a	+	+	+	+	-	n/a	+	+	+	+	+	+	+	+	n/a	ı	n/a	n/a	n/a	n/a	n/a

Benefit: Provides for continued assessment in light of continuing development activities

**Cost/Funding Source:** Grants **Responsible Party:** PW, CPED

Timeframe for Completion: Ongoing

Action ID: 3.2
Action considered: Continue/enhance creek inspection and stabilization programs

STAPLEE Criteria		S ocial	Tec	T chnic	cal	Adı	A minist	rative	Po	P olitic	cal		L Legal	l			E nomic	:		En	E viron	ment	
Considerations		ınt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Specie	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	n/a	+	+	+	+	+	ı	+	+	+	+	+	n/a	+	+	n/a	n/a	+	+	n/a	+	n/a

**Comments:** 

Benefit: Enhance natural and beneficial functions of floodplain; reduce damage within park

system

**Cost/Funding Source:** Local **Responsible Party:** PW

Action ID: 3.3
Action considered: Partner with MidAmerican Energy regarding prioritizing street cleaning for power restoration

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	n/a	+	+	+	n/a	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a

Benefit: Provides for enhanced and coordinated response and recovery; reduces time for

recovery activities to begin **Cost/Funding Source:** N/A

**Responsible Party:** N/A

**Timeframe for Completion:** 0-5 years

Action ID: 3.4
Action considered: Partner with other agencies on stormwater and flood mitigation demonstration projects

STAPLEE Criteria	So	S ocial	Te	T echn	ical	Adm	A inistr	ative	Po	P olitic	cal		L Legal			-	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	n/a	+	+	n/a	+	_	-	+	+	+	+	+	+	+	+	n/a	-	+	+	n/a	+	n/a

# **Comments:**

**Benefit:** Enhances protection for floodprone properties

**Cost/Funding Source:** Grants

**Responsible Party: PW** 

Action ID: 3.5
Action considered: Scenario planning/practice for disaster/hazard response

STA	APLEE Criteria		S ocial	Te	T Fechnical		Adı	A minist	rative	P	P olitic	al	]	L Lega	ıl			E nomic	:		En	E viron	ment	
	onsiderations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	n/a	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	+	+	+	+	+	+	+	+	+	+

**Benefit:** Provides for continued assessment in light of changing circumstances

Cost/Funding Source: N/A Responsible Party: SCEMD

Timeframe for Completion: Ongoing

Action ID: 4.1
Action considered: Review/enhance public education with respect to all hazards

STAPLEE Criteria		Social Technical Add		A minist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment				
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Provides information on risk hazards, mitigation options, and insurance options

**Cost/Funding Source:** N/A

**Responsible Party:** CPED, PW, IT **Timeframe for Completion:** Ongoing

Action ID: 4.2
Action considered: Review/update process for notifying of warnings, shelters and recovery assistance

STAPLEE Criteria		S cial	Te	T echn	T		A minist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Benefit: Reduces lead time in providing services for public; reduction in risk for loss of life

**Cost/Funding Source:** N/A

Responsible Party: PW, DPD, DFD, and PIO

Timeframe for Completion: Ongoing

Action ID: 4.3
Action considered: Enhance emergency communications to critical facilities

STAPLEE Criteria		S cial	Te	T echnical A			A minist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	_	n/a	+	+	+	+	+	n/a	+	+	+	-	n/a	n/a	n/a	n/a	n/a

#### **Comments:**

**Benefit:** Provides earlier and /or better warnings; property protection; maintains operation of

facilities; and reduces risk of loss of life **Cost/Funding Source:** Grants/Local

**Responsible Party: IT** 

T

Action ID: 5.1
Action considered: Review/update and coordinate emergency response plans

STAPLEE Criteria		S cial	Те	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Benefit:** Provides for continued assessment with changing circumstances

**Cost/Funding Source:** N/A **Responsible Party:** SCEMD

Timeframe for Completion: Ongoing

Action ID: 5.2
Action considered: Review/enhance redundant/back-up communication options

STAPLEE Criteria		S cial	Te	T echn	1		A minist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Maintain communication systems in time of crisis/need; enhance emergency response

Cost/Funding Source: CIP Responsible Party: IT

Action ID: 5.3
Action considered: Improve damage assessment process

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	ı			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	_	+	+	+	-	n/a	n/a	+	n/a	+	+	+	+	+	+	+	+	+	+	+	+	+

**Benefit:** Provides for enhanced and coordinated response and recovery; reduces time for recovery activities to begin

Cost/Funding Source: Local training budgets

Responsible Party: PW, CPED

Timeframe for Completion: Ongoing

## Jurisdiction: Dixon

**Action ID: 1.1** 

**Action considered:** Promote use of NOAA Weather Radios

STAPLEE Criteria		S cial	Te	T echn	1		A ninistr	ative	Po	P olitic	cal		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	n/a	n/a	+	+	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

**Benefit:** Quicker notification to citizens **Cost/Funding Source:** \$50 citizens **Responsible Party:** Mayor/Citizens **Timeframe for Completion:** Ongoing

Action ID: 1.2
Action considered: Pre-treat roads before severe winter storms

STA	PLEE Criteria		S cial	Te	T echn	1		A minist	rative	P	P olitic	al		L Legal	ı			E nomic	:		En	E viron	ment	
	For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	Ī	+	+	+	+	+	n/a	+	ı	n/a	+	n/a	n/a	n/a	n/a	n/a

Benefit: Safer roads during storms

Cost/Funding Source: \$500 City Budget Road Use Line Item

**Responsible Party:** City Maintenance **Timeframe for Completion:** Ongoing

Action ID: 2.1
Action considered: Ensure hydrants are maintained and well identified

STAPLEE Criteria		S cial	Te	T echn	1		A minist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+		n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** Annually and replacing old hydrants

Benefit: Public safety and fire protection

Cost/Funding Source: Staff time from water fund

**Responsible Party:** Water Superintendent **Timeframe for Completion:** Ongoing

Action ID: 4.1
Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Church quarter newsletter or monthly water bill

**Benefit:** Public awareness

**Cost/Funding Source:** Minimal

Responsible Party: Mayor

Timeframe for Completion: Ongoing

Action ID: 4.2
Action considered: Develop a check-on neighbor program for vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninistr	ative	Po	P olitic	cal		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	n/a	n/a	+	+	+	n/a	n/a	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Comments: Volunteer program - unofficially organized now

Benefit: Safety to vulnerable population

**Cost/Funding Source:** None **Responsible Party:** Mayor

## Jurisdiction: Donahue

Action ID: 3.1

**Action considered:** Construct, retrofit or maintain drainage systems to provide adequate and proper functioning systems to include sewage systems and retention/detention ponds

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ļ			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	-	+	+	+	+	+	-	-	+	-	+	-	+	n/a	n/a	+	+

**Comments:** 

**Benefit:** Reduction in potential flash floods **Cost/Funding Source:** City, USDA, FEMA **Responsible Party:** Donahue City Council **Timeframe for Completion:** 5-10 years

Action ID: 5.1

**Action considered:** Recommend a policy change to assign an on-call secondary roads plow to ambulance and fire stations to ensure safety of responders during extreme weather hazards

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	_	+	+	+	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

## **Comments:**

Benefit: Quicker Response time and safety of first responders

Cost/Funding Source: Low cost to implement

Responsible Party: Supervisors

# Jurisdiction: Eldridge

Action ID: 1.1

**Action considered:** Provide back-up power for essential services such as water plant, water wells, sewer lift stations and emergency shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations		egment															Goals			cies		ý	s,
For Alternative Actions	Community Acceptance	Effect on Population Segn	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spe	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	+	+

**Comments:** City routinely installs back-up generation with new facilities and has retrofitted many existing facilities

**Benefit:** Continued operation during power outages

**Cost/Funding Source:** Varies with size of generator funding incorporated into project budgets

Responsible Party: City Council, Utility Board of Trustees, and city staff

**Timeframe for Completion:** Ongoing

Action ID: 1.2
Action considered: Enforce building codes for prevailing winds

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	+

**Comments:** 

**Benefit:** Building roofs and walls withstand local wind loads

**Cost/Funding Source:** General fund – cost is covered by building permit fees

**Responsible Party:** Building Inspector **Timeframe for Completion:** Ongoing

Action ID: 1.3
Action considered: Evaluate traffic hazards in likely areas

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ı	J	_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

Benefit: Known hazards that could hinder emergency response are identified

Cost/Funding Source: Minimal

Responsible Party: Engineering, Public Works, Fire, and Police

Timeframe for Completion: Ongoing

Action ID: 2.1
Action considered: Enforce flood plain regulations

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1	_	E nomic	:		En	E viron	ment	
Considerations ->	nce	Segment						ons					ority	enge			omic Goals	Required	ı	1 Species	Sites	nunity	1 Laws
For Alternative Actions	Community Acceptance	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Econo	Outside Funding Req	Effect on Land/Water	Effect on Endangered	Effect on HAZMAT	Consistent w/ Commu Environmental Goals	Consistent w/ Federal
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	+

Comments: Routine enforcement to sustain unrestricted flood plain regulations

Benefit: Protects property from flash flooding

Cost/Funding Source: Minimal

Responsible Party: Zoning Enforcement Officer and Building Inspector

Action ID: 2.2
Action considered: Enforce property maintenance and building codes

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ı	J	_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	+

Benefit: Minimize safety and aesthetic issues

Cost/Funding Source: General fund - cost is covered by building permit fees

**Responsible Party:** Building Inspector **Timeframe for Completion:** Ongoing

Action ID: 2.3
Action considered: Evaluate storm sewer system and detention ponds

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	+

## **Comments:**

**Benefit:** Make sure that system can handle designed flows without flooding or other problems **Cost/Funding Source:** Cost varies from project to project - source of funding is general fund and sales tax

**Responsible Party:** Public Works **Timeframe for Completion:** Ongoing

Action ID: 3.1
Action considered: Have a water conservation plan in place

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	+	n/a	n/a	+	+

Benefit: Keeps water facilities from being overtaxed in times of drought

Cost/Funding Source: Minimal

Responsible Party: Utility Board of Trustees and city staff

**Timeframe for Completion:** Ongoing

Action ID: 3.2
Action considered: Maintain water system (adequate well, storage and treatment capacity)

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1		E nomic	:		En	E viron	ment	
Considerations → For	ceptance	Segment	ility	on	ts		p	rations					uthority	Challenge			onomic Goals	Required	/ater	ered Species	AT Sites	Community Goals	Federal Laws
Alternative Actions	Community Acce	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local A	Potential Legal C	Benefit of Action	Cost of Action	Contributes to Ec	Outside Funding	Effect on Land/W	Effect on Endangered	Effect on HAZMA	Consistent w/ C Environmental G	Consistent w/ Fec
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	+

**Comments:** 

Benefit: Adequate water flow for daily usage and fire protection

Cost/Funding Source: Costs vary with scope of project. Funding comes from usage fees and

occasional bond issues

Responsible Party: Utility Board of Trustees and city staff

Action ID: 4.1
Action considered: Make sure hazardous materials warning signs are posted as required

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	+	n/a

Comments: Required for facilities using and storing hazardous chemicals and compounds

Benefit: Informs public and emergency crews of the presence of hazards

**Cost/Funding Source:** Minimal

Responsible Party: Building Inspector and Fire Department

Timeframe for Completion: Ongoing

Action ID: 4.2

Action considered: Educate public on thunderstorms and lightning, windstorm hazards and tornados and inform on siren use

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	+	+

**Comments:** City has been doing this annually for many years

**Benefit:** Refreshes public knowledge of siren protocol

Cost/Funding Source: Minimal cost with funds provided by the general fund

Responsible Party: Police Chief and City Clerk

Action ID: 4.3
Action considered: Inform public on value of managing trees properly (remove dead branches, etc.)

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Benefit:** Dead and hazardous branches are trimmed away from power lines

**Cost/Funding Source:** Minimal – electric use sales

Responsible Party: Electric utility department

Timeframe for Completion: Ongoing

Action ID: 4.4

Action considered: Inform public on availability of emergency shelter

STAPLEE Criteria		S cial	Te	T	1		A inist	rative	P	P olitic	al		L Legal	l	1		E nomic	:		En	E viron	ment	
Considerations		Segment															Goals	T		Species		ty	aws
For Alternative Actions	Community Acceptance	Effect on Population Segr	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spe	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Lav
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

## **Comments:**

Benefit: Gives public options during power emergencies and times of severe weather

Cost/Funding Source: Minimal – general fund

**Responsible Party:** Administration **Timeframe for Completion:** Ongoing

Action ID: 4.5
Action considered: Educate public on need to be prepared for severe winter storms

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

Benefit: Community is prepared during emergency

**Cost/Funding Source:** Minimal

**Responsible Party:** Administration, Police, and Public Works

Timeframe for Completion: Ongoing

## Action ID: 4.6

**Action considered:** Educate public to stay indoors during severe winter storms, thunderstorms and lightning, tornados and hailstorms

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

**Benefit:** Community is prepared during emergency

**Cost/Funding Source:** Minimal

**Responsible Party:** Administration, Police, and Public Works

Action ID: 4.7
Action considered: Educate public on need for water conservation

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al	:	L Legal	l	1	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	+	n/a	n/a	+	n/a

Benefit: Community is prepared during emergency

Cost/Funding Source: Minimal

Responsible Party: Administration and Utility Departments

**Timeframe for Completion:** Ongoing

Action ID: 5.1
Action considered: Verify siren operation

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1		E nomic	:		En	E viron	ment	
Considerations	0	egment						s					ý	age			c Goals	red		Species	tes	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Commu Environmental Goals	Consistent w/ Federal L
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Monthly tests conducted by the police and public works departments **Benefit:** Verifies proper operation and identifies needed maintenance and repairs **Cost/Funding Source:** Minimal cost with funds provided by the general fund

Responsible Party: Public Works and Police Department

**Timeframe for Completion:** Ongoing (10:00 a.m. first Tuesday of every month)

Action ID: 5.2
Action considered: Make sure emergency crews are trained and prepared for routine emergencies

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Benefit:** Crews are trained to meet routine emergencies **Cost/Funding Source:** Part of normal training budgets

Responsible Party: Police, Fire, Public Works, and Utility Department

Timeframe for Completion: Ongoing

# Jurisdiction: LeClaire

Action ID: 1.1

**Action considered:** Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	-	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	_	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

Comments: Level of need (if any) has not been identified locally

**Benefit:** Protects vulnerable populations

**Cost/Funding Source:** Grants

**Responsible Party:** Emergency Services **Timeframe for Completion:** 5-10 years

Action ID: 1.2
Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	_	+	-	-	-	n/a	_	n/a

**Comments:** Proactive versus reactive results

Benefit: Results in reduced use of anti-icing agents; reduces snow/ice removal efforts saving the

city money

**Cost/Funding Source:** Annual O&M Budget

**Responsible Party: PWD** 

Timeframe for Completion: Ongoing

Action ID: 1.3
Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	_	+	+	+	n/a	n/a	n/a	n/a

Comments: Program already in place through IDNR Urban Forestry Program

**Benefit:** Helps to avert power outages, decreased line strikes, and decreases property damage &

clean up costs

**Cost/Funding Source:** Annual O&M Budget (Significant cost)

**Responsible Party:** City Administrator and PWD

**Timeframe for Completion:** 5-10 years

Action ID: 2.1
Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E 10mio	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

**Comments:** Action is already in place

Benefit: Maximizes use of facilities and infrastructure. Provides for planned and orderly growth

Cost/Funding Source: Annual O&M Budget

Responsible Party: City Administrator, Plan & Zone, City Council, Chamber of Commerce

**Timeframe for Completion:** Ongoing

Action ID: 3.1

Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteri	9	S	To	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Indo	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

**Comments:** Proactive versus reactive practice/ ongoing **Benefit:** Ensures continuity of service and decreased costs

**Cost/Funding Source:** Annual O&M Budget **Responsible Party:** City Administrator and I.T.

Action ID: 3.2
Action considered: Complete watershed and hydrology studies of the creeks and rivers within Scott County

STAPLEE Criteria	S T Social Technical Ad		Adn	A ninist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment				
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	_	+	+	n/a	+	n/a	+	n/a

**Comments:** Studies would only be of use if they are detailed

Benefit: Identifies drainage areas and patterns affecting Scott County

Cost/Funding Source: Cost is significant. Would be funded through the County and IDNR

**Responsible Party:** County and State **Timeframe for Completion:** Ongoing

Action ID: 3.3
Action considered: Utilize traffic calming measures

STAPLEE Criteria				Adm	A inist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment			
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a

**Comments:** Program already implemented in part of downtown redevelopment area. (Phase 1 already completed; phases 2 & 3 to be completed within next 10 years)

**Benefit:** Eliminates illegal/dangerous passing at intersections; improves pedestrian movement; provides improved handicapped accessibility

**Cost/Funding Source:** Annual O&M Budget (Significant cost)

Responsible Party: City Administrator & PWD

**Timeframe for Completion:** 5-10 years

Action ID: 3.4
Action considered: Identify critical facilities such as lift stations where back-up power generators should be installed

STAPLEE Criteria		S cial	Te	T echnical Adn		A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment		
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

Comments: Process already in place

**Benefit:** Maintains critical services during outages

Cost/Funding Source: Significant/ Handled through CIP process

Responsible Party: City Administrator, Department Heads, and City Council

Action ID: 3.6
Action considered: Develop stream modification/channel improvement project

STAPLEE Criteria		S T ocial Technical Adı		Adn	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment			
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	_	+	+	+	+	+	+	+	+	+	+	-	+	+	n/a	+	n/a

**Comments:** Incorporated as a part of the City's MS4 System and Program

Benefit: Decreases localized flooding damage

Cost/Funding Source: Significant costs/ Grants would be needed

Responsible Party: City Council

Timeframe for Completion: Ongoing

Action ID: 3.7
Action considered: Remove asbestos from public buildings

STAPLEE Criteria		S T Social Technical A				Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For	ceptance	on Segment	ity	n	10			ations					uthority	Challenge			onomic Goals	Required	ater	red Species	T Sites	Community Goals	eral Laws
Alternative Actions	Community Accep	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Aut	Potential Legal Ch	Benefit of Action	Cost of Action	Contributes to Eco	Outside Funding R	Effect on Land/Wa	Effect on Endangered	Effect on HAZMA	Consistent w/ Co Environmental Go	Consistent w/ Federal
	+	+	+	+	+	ı	-	+	+	+	+	+	+	+	+	ı	+	+	n/a	n/a	n/a	+	+

**Comments:** Relatively few public buildings containing asbestos still exist within the corporate

limits

Benefit: Enhances environmental safety of users

**Cost/Funding Source:** CIP Program **Responsible Party:** City Council

Action ID: 4.1
Action considered: Notify the public on warming shelter locations

STAPLEE Criteria		S cial	Te	T Adn		Adm	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

Comments: Provides a certain "Peace of Mind" to the public

**Benefit:** Increases safety for seniors and affirmed **Cost/Funding Source:** Annual O&M Budget

Responsible Party: City Administrator, LCPD, LCFD

**Timeframe for Completion:** 0-5 years

Action ID: 4.2
Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal			-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

**Comments:** Current policy in place

**Benefit:** Results in more productive PWD removal efforts; less time spent by LCPD in

enforcement efforts

Cost/Funding Source: Annual O&M Budget

Responsible Party: City Administrator, LCPD, LCFD

Action ID: 4.3
Action considered: Communicate the locations of community shelters

STAPLEE Criteria		S cial	Te	T Adn		Adm	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

**Comments:** Proactive versus reactive practice

Benefit: Expedites movement to shelters when needed

Cost/Funding Source: Annual O&M Budget

Responsible Party: City Administrator, LCPD, LCFD

**Timeframe for Completion:** 0-5 years

Action ID: 4.4
Action considered: Use social media such as Twitter, Facebook, or mass texting systems to notify the public of hazardous events

STAPLEE Criteria		S cial	Te	T echn	1		A ninist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

Comments: Method is gaining more general acceptance from public each year

Benefit: Easily transmits messages to public who in turn transmit to others expediting the

spread of information

**Cost/Funding Source:** Annual O&M Budget **Responsible Party:** City Administrator, IT **Timeframe for Completion:** 0-5 years

Action ID: 5.1
Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria		S T Social Technical		Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E 10mio	2		En	E viron	ment			
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	Ī	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Fairly easy to implement

Benefit: Provides uniform and consistent response to situations and transcends changes in

personnel

Cost/Funding Source: Annual O&M Budget

Responsible Party: City Administrator, Department Heads/Supervisors

**Timeframe for Completion:** 0-5 years

Action ID: 5.2
Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+

**Comments:** Fairly easy to implement

**Benefit:** Saves financial resources for all and offers more improved and consistent services for

all

Cost/Funding Source: Annual O&M Budget

**Responsible Party:** City Administrator, Department Heads/Supervisors

**Timeframe for Completion:** 0-5 years

# Action ID: 5.3

**Action considered:** Recommend a policy change to assign an on call secondary roads plow to ambulance and fire stations to ensure safety of responders during extreme weather hazards

STAPLEE Criteria				Adm	A inist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment			
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	n/a	n/a	n/a	n/a	n/a

Comments: Current policy (notification) has been in place for a long time

**Benefit:** Ensures and enhances emergency services response

Cost/Funding Source: Annual O&M Budget

Responsible Party: City Administrator, LCPD, PWD, LCFD, Medic Ambulance

**Timeframe for Completion:** Ongoing

# Jurisdiction: Long Grove

Action ID: 2.1

**Action considered:** Adopt and enforce most current building codes

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P litic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	n/a	+	n/a	+	+	n/a	+	n/a	+	+	+	n/a	n/a	n/a	+	+	+

**Comments:** Update Ordinances

**Benefit:** To ensure that homes are built to the latest building specifications for the safety of the owner

**Cost/Funding Source:** 

**Responsible Party:** City Council

**Timeframe for Completion:** 0-5 years

Action ID: 3.1
Action considered: Construct sand and salt storage facility

STAPLEE Criteria		S cial	Tec	T hnic	cal	Adm	A inist	rative	Po	P olitica	ıl	]	L Lega	1		_	E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	+	+	n/a	+	+	n/a	n/a	+	n/a	+	n/a	+	-	+	n/a	n/a	n/a	n/a	n/a	n/a

Benefit: Materials available to provide maintenance to streets for the safety of citizens

Cost/Funding Source: Local Option Sales Tax

Responsible Party: City Council

**Timeframe for Completion:** 0-5 years

Action ID: 3.2

Action considered: Ensure each public critical facility has back-up generators

STAPLEE Criteria	-	S cial	Te	T echn	ical	Adm	A inist	rative	Po	P olitica	ıl	]	L Lega	ıl			E nomic	:		En	E viron	ment	
Considerations		ent															Joals			cies		<b>x</b>	S
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic C	Outside Funding Required	Effect on Land/Water	Effect on Endangered Spec	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Law
	+	+	+	+	+	n/a	_	-	n/a	n/a	+	n/a	+	n/a	+	_	+	n/a	+	n/a	n/a	n/a	n/a

**Comments:** Emergency generation to well, lift station, and city shop

**Benefit:** Provide emergency power to maintain water supply and warning system

**Cost/Funding Source:** Reserve funds and grants

Responsible Party: City Council

**Timeframe for Completion:** 0-5 years

Action ID: 3.3

Action considered: Install second well

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	Po	P olitica	ı,		L Lega	ıl		_	E 10mic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	n/a	n/a	+	+	+	n/a	+	+	+	n/a	+	n/a	+	+	+

**Comments:** 

Benefit: Available water source

Cost/Funding Source: Budgeted Water Fund Reserve

Responsible Party: City Council

**Timeframe for Completion:** 0-5 years

Action ID: 3.4

Action considered: Adopt SUDAS for Infrastructure Construction standards

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1		E nomic	:		En	E viron	ment	
Considerations	0	egment						s					ý	age			c Goals	red		Species	Sites	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sit	Consistent w/ Commu Environmental Goals	Consistent w/ Federal L
	+	+	+	+	n/a	-	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** To ensure that all infrastructure is built to withstand severe conditions

**Benefit:** Helps with snow removal **Cost/Funding Source:** City Budget **Responsible Party:** City Council **Timeframe for Completion:** 0-5 years

# Jurisdiction: Maysville

Action ID: 4.1

Action considered: Educate the public on the dangers of tornados and what to do during a

tornado

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inistr	ative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	n/a	+	+	n/a	+	+	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** Put flyer in water bill or on public display board

**Benefit:** Increase public awareness **Cost/Funding Source:** Minimal

Responsible Party: Clerk

Timeframe for Completion: Ongoing

Action ID: 4.2

**Action considered:** Communicate the location of community shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inistr	ative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	+	+	n/a	+	+	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** Put flyer in water bill or on public display board

**Benefit:** Increase public awareness **Cost/Funding Source:** Minimal

**Responsible Party:** Clerk

# Action ID: 4.3

**Action considered:** Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria		S cial	Te	T echn	T chnical A		A inistr	ative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	+	+	n/a	+	+	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

Comments: Put flyer in water bill or on public display board

**Benefit:** Increase public awareness **Cost/Funding Source:** Minimal

Responsible Party: Clerk

Timeframe for Completion: Ongoing

# Jurisdiction: McCausland

Action ID: 1.1

**Action considered:** Pre-treat roads before severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	ı		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	-	n/a	n/a	+	n/a

**Comments:** Contract with Scott County for winter road work on primary roads

**Benefit:** Driving safety

**Cost/Funding Source:** Road Use Funds

Responsible Party: Maintenance Department/Scott County

Action ID: 1.2
Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

Benefit: Continued operation of critical facilities during power outages

Cost/Funding Source: General Fund, Sewer Fund

Responsible Party: Sewer Department, Maintenance Department, Fire Department, City

Council

**Timeframe for Completion:** 0-5 years

#### Action ID: 1.3

**Action considered:** Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools and daycare centers

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

Comments: Ongoing consideration and discussion; feasible as funding becomes available

**Benefit:** Provide safe places in times of disaster, protection of public records

Cost/Funding Source: General Fund, Grant/Loan Funding

Responsible Party: City Council, Maintenance Department, City Clerk

**Timeframe for Completion:** 5-10 years

Action ID: 1.4
Action considered: Encourage those dependent on oxygen extractors to install back-up generators

STAPLEE Criteria		S cial	Teo	T chn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	+	n/a	+	+	n/a	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Education through monthly newsletter **Benefit:** Safety and security of vulnerable populations

Cost/Funding Source: General Fund

Responsible Party: City Clerk, City Council

Timeframe for Completion: Ongoing

Action ID: 1.5
Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria		S ocial	Te	T echn	ical	Adı	A minis	strative	P	P olitic	al	]	L Lega	ıl	]	_	E nomic			En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	n/a	+	+	-	+	+	+	+	n/a	+	n/a	+	-	+	-	n/a	-	n/a	-	n/a	+	n/a

**Comments:** Community awareness through newsletter is in place

Benefit: Safety, prevent possible power outages

Cost/Funding Source: General Fund

Responsible Party: Maintenance Department, Parks & Recreation Department

Action ID: 2.1
Action considered: Join the National Flood Insurance Program

STAPLEE Criteria	So	S ocial	Те	T chni	cal	Adm	A ninist	rative	P	P olitic	al	L	L egal			E Econ		:		En	E viron	ment	
Considerations ->	nce	Segment						ons					uthority	hallenge			mic Goals	Required	ľ	d Species	Sites	nunity	al Laws
For Alternative Actions	Community Acceptance	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operati	Political Support	Local Champion	Public Support	State Authority	Existing Local Autho	Potential Legal Chall	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Req	Effect on Land/Wate	Effect on Endangered	Effect on HAZMAT	Consistent w/ Comm Environmental Goals	Consistent w/ Federa
	+	n/a	n/a	+	n/a	+	+	n/a	+	n/a	+	n/a	+	Ī	+	n/a	+	n/a	+	n/a	n/a	+	+

Comments: Resolution passed, ordinance being produced

Benefit: Allows citizens to get flood insurance if they so desire

**Cost/Funding Source:** N/A **Responsible Party:** City Clerk

**Timeframe for Completion:** 0-5 years

Action ID: 3.1
Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteria	Soc		Te	T echn	ical	Adm	A inistr	ative	I	P Politic	al	]	L Lega	ıl	]		E nom	ic		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	n/a	n/a	+	+	n/a	+	+	+	+	n/a	n/a	n/a	+	n/a	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Completed

**Benefit:** Security of public records **Cost/Funding Source:** General Fund

**Responsible Party:** City Clerk

Action ID: 3.2

Action considered: Identify critical facilities such as lift stations where back-up power generators should be installed

STAPLEE Criteria	S Soci	Social Technica A		Adm	A ninist	rative		P Politi	cal		L Legal				E nomic	:		Envi	E ironn	nent			
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	n/a	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	+

Benefit: Continued operation of critical facilities during power outages

Cost/Funding Source: General Fund

Responsible Party: Maintenance Department, Sewer Department

**Timeframe for Completion:** 0-5 years

Action ID: 4.1
Action considered: Educate the public and businesses about NFIP and the floodplain in general

STAPLEE Criteria		S cial	Te	T chni	cal	Adı	A minist	rative	P	P olitic	al	]	L Lega	1			E 10mio	:		En	E viron	ment	
Considerations		Segment						S					y	ge			c Goals	pə.		Species	es	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal L
	+	+	n/a	+	n/a	+	n/a	+	+	n/a	+	n/a	+	n/a	+	+	+	n/a	+	+	n/a	+	n/a

**Comments:** Education is on-going through our monthly newsletter

Benefit: Financial aid to residents and businesses in case of a flood event

Cost/Funding Source: General Fund

Responsible Party: City Clerk, General Governmental Department

Action ID: 4.2
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria		S cial	Te	T chni	cal	Adm	A inistra	ative	P	P olitic	al	I	L Lega	1	J	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	+	n/a	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

Benefit: Public education to prevent accidents

Cost/Funding Source: General Fund

**Responsible Party:** City Clerk

Timeframe for Completion: Ongoing

Action ID: 4.3
Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria		S cial	Te	T echn	1		A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	•		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	_	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Education through monthly newsletter

Benefit: Safety for clear roads, work load for maintenance department in heavy snows

Cost/Funding Source: General Fund

Responsible Party: City Clerk, Maintenance Department, City Council

Action ID: 4.4

**Action considered:** Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	-	E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** On going through city newsletter **Benefit:** Prevent injury during severe weather

Cost/Funding Source: General Fund

Responsible Party: City Clerk, City Council, Fire Department

Timeframe for Completion: Ongoing

Action ID: 4.5

**Action considered:** Communicate the locations of community shelters

STAPLEE Criteria		S cial	Te	T chni	cal	Adm	A inist	rative	P	P olitic	al	]	L Lega	ıl	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	+	n/a	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

Benefit: Provide safe shelter during times of need

Cost/Funding Source: General Fund

Responsible Party: City Council, Maintenance Department, City Clerk

Action ID: 4.6
Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Public education through monthly newsletter

Benefit: Avoidance of fire hazards and potentially save lives in the event of a fire

Cost/Funding Source: General Fund

**Responsible Party:** City Clerk, Fire Department

Timeframe for Completion: Ongoing

Action ID: 4.7
Action considered: Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria		S cial	Te	T echn	1		A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	•		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	_	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Public education through monthly newsletter

**Benefit:** Prevent groundwater contamination by improper disposal

Cost/Funding Source: General Fund

**Responsible Party:** City Clerk

## Action ID: 4.8

**Action considered:** Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Te	T echnic	cal	Adı	A minist	rative	P	P olitic	al	]	L Lega	ıl		Eco	E nomi	c		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	n/a	n/a	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Public education through monthly newsletter

**Benefit:** Prevent injury, illness or death of vulnerable populations

Cost/Funding Source: General Fund

Responsible Party: City Clerk

Timeframe for Completion: Ongoing

# Jurisdiction: New Liberty

Action ID: 1.1

**Action considered:** Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	+	n/a	+

**Comments:** In-place via Tier 2 reporting requirements

Benefit: Safety of first responders and community

Cost/Funding Source: Existing Budget

Responsible Party: Tier 2 facilities, Iowa DNR, EMA

Action ID: 1.2
Action considered: Promote use of NOAA weather radios

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+	n/a

**Comments:** In-place; radios provided to schools via federal grant; radios provided community governmental bodies via grant

**Benefit:** Individual and community safety; advance storm warnings

Cost/Funding Source: Not available at this time; future grant possibility; individual purchases

at < \$50.00

**Responsible Party:** EMA

**Timeframe for Completion:** Ongoing

Action ID: 1.3
Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	_	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Would require approval of ordinance amendments to require safe room in mobile home parks and similar facilities

**Benefit:** Vulnerable populations would have secure shelter in storms **Cost/Funding Source:** Not identified, possible Hazard Mitigation grants

**Responsible Party:** Local Government **Timeframe for Completion:** 5-10 years

Action ID: 1.4
Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	ı			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	-	-	-	+	+	n/a	-	n/a	n/a	n/a	-	+

**Comments:** Promote acquisition of back-up generation for essential public services and care centers

Benefit: Maintain regular level of service/operations in times of power outages

Cost/Funding Source: Costly endeavor with no regular funding sources outside of

organization. Possible future federal funding sources will be monitored

Responsible Party: EMA with local jurisdictions and primary care facilities

**Timeframe for Completion:** Ongoing

Action ID: 4.1
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

Benefit: Public Safety

**Cost/Funding Source:** Existing

Responsible Party: EMA in conjunction with NWS and area PIOs

Action ID: 4.2
Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

Benefit: Personal and public safety

**Cost/Funding Source:** Existing program

Responsible Party: EMA in conjunction with NWS and local jurisdictions

Timeframe for Completion: Ongoing

Action ID: 4.3
Action considered: Communicate the locations of community shelters

STAPLEE Criteria		S cial	Te	T echn	1		A ninist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	_	+	+	+	+	+	+	+	-	n/a	+	+	+	n/a	n/a	n/a	n/a	+	n/a	n/a

**Comments:** Existing program

Benefit: Provide public with temporary safe location in times of natural or technological

incident

**Cost/Funding Source:** Existing

**Responsible Party:** EMA

Action ID: 4.4
Action considered: Educate citizens on fire hazards and what to do in the event of a fire

5	STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E 10mic	2		En	E viron	ment	
	Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Benefit:** Lessen potential for injuries and death from house fires

Cost/Funding Source: Hazard Mitigation Grants

Responsible Party: Scott County Planning and Development

**Timeframe for Completion:** 0-5 years

Action ID: 4.5

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

**Comments:** 

**Benefit:** Lessen potential for injuries and death from house fires **Cost/Funding Source:** Private sources and possible grant funding **Responsible Party:** Scott County Planning and Development

Action ID: 4.6
Action considered: Develop a check-on-neighbor program for vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a

Benefit: Increase public safety and community pride

Cost/Funding Source: Existing

**Responsible Party: EMA** 

Timeframe for Completion: Ongoing

Action ID: 4.7

Action considered: Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal			_	E 10mio	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	_	-	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+

**Comments:** Waste Commission of Scott County collects, recycles, or properly disposes of household hazardous waste at no cost to Scott County

**Benefit:** Local residents

**Cost/Funding Source:** Existing fees

Responsible Party: Waste Commission of Scott County

## Action ID: 4.8

**Action considered:** Educate the public in the area surrounding hazardous materials sites of emergency procedures in case of a spill or release

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

Benefit: Public safety

Cost/Funding Source: Existing budgets

Responsible Party: EMA and first responders

Timeframe for Completion: Ongoing

### Action ID: 4.9

**Action considered:** Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	_	-	+	_	-	-	+	+	+	+	+	+	+	+	n/a	ı	+	n/a	n/a	+	n/a

**Comments:** United Way is no longer the lead agency so need to establish a new lead agency for VOAD

**Benefit:** Reduces the risk to vulnerable population

**Cost/Funding Source:** Staff time and supplies for agencies listed below under Responsible

**Party** 

Responsible Party: Community partners: EMA, Scott Co. Health Dept, VOAD, Red Cross,

and Salvation Army

# Action ID: 4.10

**Action considered:** Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	_	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a	n/a

**Comments:** In-place; radios provided to schools via federal grant; radios provided community governmental bodies via grant

**Benefit:** Individual and community safety; advance warning and instant impact information **Cost/Funding Source:** Not available at this time; future grant possibility; individual purchases

at < \$50.00

**Responsible Party: EMA** 

**Timeframe for Completion:** Ongoing

Action ID: 5.1

**Action considered:** Require First Responders to have rescue plans for severe weather

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

**Comments:** In place

**Benefit:** Emergency preparedness, public safety

Cost/Funding Source: Existing budgets

**Responsible Party:** EMA, local responders, Sheriff Office

Action ID: 5.2

Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

Comments: In-place mutual aid /28E agreements

**Benefit:** Conserve resources

Cost/Funding Source: Existing budgets

Responsible Party: EMA, local response organizations

**Timeframe for Completion:** Ongoing

## Jurisdiction: Panorama Park

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	+	n/a	+

**Comments:** In-place via Tier 2 reporting requirements

Benefit: Safety of first responders and community

Cost/Funding Source: Existing budgets

Responsible Party: Tier 2 facilities, Iowa DNR, EMA

Action ID: 1.2
Action considered: Create detour and road closure plans for flooded areas

STAPLEE Criteria		S cial	Te	T echnic	cal	Adn	A ninist	rative	P	P olitic	al		L Legal	ı			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	n/a	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Plans in place with Public Works and Law Enforcement

**Benefit:** Public safety during flooding events

Cost/Funding Source: Existing

Responsible Party: Public Works/Engineer, Law Enforcement, EMA

Timeframe for Completion: Ongoing

Action ID: 1.3
Action considered: Promote use of NOAA weather radios

STAPLEE Criter	ia s	S ocial	To	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Accentance	Indo	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+	n/a

**Comments:** In-place; radios provided to schools via federal grant; radios provided community governmental bodies via grant

**Benefit:** Individual and community safety; advance storm warnings

Cost/Funding Source: Not available at this time; future grant possibility; individual purchases

at < \$50.00

**Responsible Party: EMA** 

Action ID: 1.4
Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	-	n/a	-	-	_	+	+	-	+	_	n/a	-	n/a	n/a	n/a	+	+

**Comments:** Would require approval of ordinance amendments to require safe room in mobile home parks and similar facilities

Benefit: Vulnerable populations would have secure shelter in storms

**Cost/Funding Source:** N/A, possible Hazard Mitigation grants

**Responsible Party:** Local Government **Timeframe for Completion:** 5-10 years

Action ID: 1.5
Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	-	-	-	+	+	n/a	ı	n/a	n/a	n/a	+	n/a

**Comments:** Promote acquisition of back-up generation for essential public services and care centers

**Benefit:** Maintain regular level of service/operations in times of power outages

Cost/Funding Source: Costly endeavor with no regular funding sources outside of

organization. Possible future federal funding sources will be monitored

Responsible Party: EMA with local jurisdictions and primary care facilities

Action ID: 2.1

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+

**Benefit:** Improved compliance with floodplain regulations

Cost/Funding Source: Staff time

Responsible Party: Scott County Planning and Development and Panorama Park City

Government

**Timeframe for Completion:** Ongoing

Action ID: 2.2
Action considered: Adopt and enforce current building codes

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal			_	E 10mic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a

**Comments:** Scott County regularly (every three years) adopts update of International Building Code in conjunction with other jurisdictions in the area

**Benefit:** Improve building safety and reduce damage due to natural disasters or manmade hazards

**Cost/Funding Source:** Generated from fees paid for building permits

Responsible Party: Scott County Planning and Development

Action ID: 2.3

Action considered: Develop and implement stormwater regulations and drainage plans

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	+	+

Benefit: Reduce severity of flooding and improve water quality

Cost/Funding Source: N/A; possible grant funding

**Responsible Party:** City

**Timeframe for Completion:** 5-10 years

Action ID: 4.1
Action considered: Educate the public on the dangers of flash flooding

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations -		egment											,	ge			c Goals	pə		Species	se	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challeng	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered Sp	Effect on HAZMAT Sites	Consistent w/ Commur Environmental Goals	Consistent w/ Federal La
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** 

Benefit: Public safety

Cost/Funding Source: Existing budgets

Responsible Party: EMA and first responders

Action ID: 4.2
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

Benefit: Public Safety

**Cost/Funding Source:** Existing

Responsible Party: EMA in conjunction with NWS and area PIOs

**Timeframe for Completion:** Ongoing

Action ID: 4.3

**Action considered:** Educate the public on the dangers of tornados and what to do during a

tornado

STAPLEE Criteria		S cial	Te	T echn	1		A inist	rative	P	P olitic	al		L Legal	l			E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

Benefit: Personal and public safety

**Cost/Funding Source:** Existing program

Responsible Party: EMA in conjunction with NWS and local jurisdictions

Action ID: 4.4
Action considered: Communicate the location of community shelters

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	-	+	+	+	+	+	+	+	-	n/a	+	+	+	n/a	n/a	n/a	n/a	+	n/a	n/a

**Comments:** Existing program

Benefit: Provide public with temporary safe location in times of natural or technological

incident

**Cost/Funding Source:** Existing

**Responsible Party: EMA** 

Timeframe for Completion: Ongoing

Action ID: 4.5

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations		nt															oals			es			
For Alternative Actions	ity Acceptance	Population Segment	Feasibility	n Solution	y Impacts		Allocated	nce/Operations	Support	Champion	Support	Authority	Local Authority	Legal Challenge	f Action	ction	to Economic G	Funding Required	Land/Water	Endangered Specie	HAZMAT Sites	it w/ Community nental Goals	ıt w/ Federal Laws
<b>↓</b>	Community	Effect on	Technical	Long-term	Secondary	Staffing	Funding 4	Maintenance	Political S	Local Cha	Public Su	State Autl	Existing I	Potential	Benefit of	Cost of A	Contributes	Outside F	Effect on	Effect on	Effect on	Consistent Environme	Consisten
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

Benefit: Lessen potential for injuries and death from house fires

Cost/Funding Source: Hazard Mitigation Grants

Responsible Party: Scott County Planning and Development

Action ID: 4.6
Action considered: Encourage citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal			_	E 10mic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

**Benefit:** Lessen potential for injuries and death from house fires **Cost/Funding Source:** Private sources and possible grant funding **Responsible Party:** Scott County Planning and Development

Timeframe for Completion: Ongoing

Action ID: 4.7
Action considered: Develop a check-on- neighbor program for vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal				E nomic	2		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a

# **Comments:**

**Benefit:** Increase public safety and community pride

Cost/Funding Source: Existing funding

**Responsible Party: EMA** 

Action ID: 4.8

Action considered: Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations		egment						s					y	ge			c Goals	pa		Species	es	nity	aws
For Alternative Actions	Community Acceptance	Effect on Population Se	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal L
	+	+	+	+	+	-	_	-	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+

**Comments:** Waste Commission of Scott County collects, recycles, or properly disposes of household hazardous waste at no cost to Scott County

Benefit: Local residents

**Cost/Funding Source:** Existing funding

**Responsible Party:** Waste Commission of Scott County

**Timeframe for Completion:** Ongoing

Action ID: 4.9

**Action considered:** Educate the public on river flooding and what they need to do when an

event occurs

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a

**Comments:** Scott County has enforced floodplain regulations for Panorama Park since 2000

**Benefit:** Increased compliance with Floodplain regulations

**Cost/Funding Source:** Existing

Responsible Party: Scott County Planning and Development, EMA

# Action ID: 4.10

**Action considered:** Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitica	al		L Legal		]	E Econ	-			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	-	-	+	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	_	+	n/a	n/a	+	n/a

**Comments:** United Way is no longer the lead agency so need to establish a new lead agency for VOAD

**Benefit:** Reduces the risk to vulnerable population

**Cost/Funding Source:** Staff time and supplies for agencies listed below under Responsible Party

Responsible Party: Community partners: EMA, Scott Co. Health Dept, VOAD, Red Cross,

and Salvation Army

**Timeframe for Completion:** Ongoing

## Action ID: 4.11

**Action considered:** Monitor water levels and notify the public when flooding will occur and where

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	•		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+	+

**Comments:** Currently in place

**Benefit:** Advance notification to allow time to review plans and initiate protective actions

**Cost/Funding Source:** Existing budgets

**Responsible Party:** EMA in coordination with NWS and jurisdictions

Action ID: 5.1
Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	l		-	E 10mio	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+

Comments: In place

Benefit: Emergency preparedness, public safety

Cost/Funding Source: Existing budgets

Responsible Party: EMA, local responders, Sheriff Office

**Timeframe for Completion:** Ongoing

Action ID: 5.2
Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	•		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	+

**Comments:** In place mutual aid /28E agreements

**Benefit:** Conserve resources

Cost/Funding Source: Existing budgets

Responsible Party: EMA, local response organizations

# Jurisdiction: Princeton

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	+	+	+	n/a	+	+	n/a	n/a	+	n/a	n/a	+	+	+	+	+	+

**Comments:** 

**Benefit:** 

**Cost/Funding Source:** Minimal

Responsible Party: Princeton Fire Department

**Timeframe for Completion:** 0-5 years

Action ID: 1.2

**Action considered:** Create detour and road closure plans for flooded areas

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+

**Comments:** 

**Benefit:** 

Cost/Funding Source: Minimal

Responsible Party: Fire Department and Public Works Department

Action ID: 1.3

**Action considered:** Promote use of NOAA weather radios

S	STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
	Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	n/a	+	+	+	1	+	1	+	+	+	n/a	+	+	n/a

**Comments:** 

Benefit: Increased weather related warning system

Cost/Funding Source: Minimal

Responsible Party: Princeton Fire Department

**Timeframe for Completion:** 0-5 years

Action ID: 1.4

Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations -	ıce	Segment						suo					rity	enge			omic Goals	Required	L.	1 Species	Sites	munity s	Laws
For Alternative Actions	Community Acceptance	Effect on Population	<b>Technical Feasibility</b>	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challen	Benefit of Action	Cost of Action	Contributes to Econor	Outside Funding Req	Effect on Land/Water	Effect on Endangered	Effect on HAZMAT	Consistent w/ Comn Environmental Goals	Consistent w/ Federal
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	+	+	n/a

**Comments:** 

**Benefit:** 

**Cost/Funding Source:** N/A

Responsible Party: Princeton Fire Department

# Action ID: 1.5 Action considered: Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools, and day care centers

STAPI	LEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Con	siderations		nt															oals			ies			
	For ternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	+	+	+

**Comments:** 

**Benefit:** Increased protection for residents

**Cost/Funding Source:** N/A

Responsible Party: Princeton Fire Department, City Officials

**Timeframe for Completion:** 0-5 years

Action ID: 3.1
Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteria		S cial	T Technical				A ninist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	+	+	n/a

**Comments:** 

**Benefit:** 

**Cost/Funding Source:** N/A **Responsible Party:** City

Action ID: 3.2

**Action considered:** Construct or Implement flood control for city infrastructure to include ditch re-profiling, culvert expansion, Hesco barriers, and potential berms.

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	n/a	-	+	+	+	+	n/a	+	+	+	+	+	+	+	n/a	+	+	+

Comments: To fix frequent flooding of Lost Grove Road from Hwy 67 to N. 6<sup>th</sup> Street,

Fillmore Court & Fifth Street, and River Drive

Benefit: Stop roads from being closed; prevent future damage to roads and residential properties

Cost/Funding Source: \$500,000+ mixture of budgeted dollars and grant opportunities

Responsible Party: Public Works Department, City Clerk

**Timeframe for Completion:** 5-10 years

Action ID: 4.1

**Action considered:** Educate the public on what river flood levels on the Mississippi and Wapsipinicon actually mean

STAPLEE Criteria		S		T			A			P			L				E		1		E		
STAT LEE CITICITA	So	cial	Te	echn	ical	Adm	inist	rative	P	olitic	al		Legal			Eco	omic	:		En	viron	ment	
Considerations		nt															als			es			
<b>→</b>	ce	Segment						suc					rity	agu			nic Gc	iired		Specie	Sites	unity	Laws
For Alternative	ceptan	ation	ibility	ution	acts		ated	peratic	ort	п		,	Author	Challe	ction		Econor	ng Require	/Water	Endangered	ZMAT S	Comm Goals	Federal
Actions	iity Ao	Popul	al Feas	m Solu	y Imp		Alloca	ance/C	Suppc	ampion	upport	uthority	Local	Legal	of Acti	Action	tes to	Funding	Land		НА	nt w/ nental	nt w/ I
$\downarrow$	mmur	fect on	chnica	ng-ter	condary	affing	nding	aintena	litical	cal Ch	blic Su	ate Aut	isting	tential	nefit o	st of A	ntribu	ıtside I	fect on	fect on	fect on	nsiste	nsiste

**Comments:** 

**Benefit:** 

**Cost/Funding Source:** N/A

Responsible Party: Public Works Department, Fire Department, DNR

Action ID: 4.2
Action considered: Educate the public on river flooding and what they need to do when an event occurs

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+

**Benefit:** 

**Cost/Funding Source:** Minimal

Responsible Party: Public Works Department

**Timeframe for Completion:** Ongoing

Action ID: 4.3

**Action considered:** Educate the public on how to minimize damage their residences and businesses

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	ļ			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a

**Comments:** 

**Benefit:** Education for the public on flooding and the effect

**Cost/Funding Source:** Minimal

Responsible Party: Public Works Department

**Timeframe for Completion:** 0-5 years

Action ID: 4.4

Action considered: Monitor water levels and notify the public when flooding will occur and

where

STAPL	EE Criteria		S cial	Те	T echnical A		Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Alte	iderations  For ernative actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	n/a	+	+	+	+	+	n/a

Benefit: Will enable public to be prepared

Cost/Funding Source: Minimal

Responsible Party: Public Works Department

**Timeframe for Completion:** Ongoing

Action ID: 4.5

**Action considered:** Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	-	+	+	n/a

**Comments:** 

Benefit: Increased warning of upcoming weather situations

**Cost/Funding Source:** Minimal **Responsible Party:** Fire Department **Timeframe for Completion:** 0-5 years

Action ID: 5.1

**Action considered:** Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	S	T	A	P	L	E	${f E}$
STAT LEE CITCHA	Social	Technical	Administrative	Political	Legal	Economic	Environment

Considerations		ınt															oals			ies			
<b>→</b>	e	egment						SI					ty	ag i			c G	red		Speci	Sites	ınity	aws
For Alternative	Acceptanc	Population Se	Feasibility	Solution	mpacts		cated	Operations	oort	ion	ort	Ę	al Authori	al Challen	Action	u	e Economic	ing Require	ıd/Water	Endangered S	ZMAT Si	/ Community al Goals	' Federal I
Actions ↓	ommunity A	Effect on Pop	echnical Fea	ong-term Sc	econdary I	taffing	unding Allo	faintenance/	olitical Support	ocal Champion	ublic Supp	tate Authority	xisting Local	Potential Legal	Benefit of Ac	ost of Action	ontributes to	Jutside Funding	Effect on Land/	Effect on End	Effect on HA	Consistent w/ Environmental	onsistent w/
	+	+	+	+	+	+	+	_	+ P	n/a	+ P	+	+	_	n/a	+	_	+	+	-	+	-	+

**Benefit:** 

**Cost/Funding Source:** Minimal **Responsible Party:** Fire Department **Timeframe for Completion:** 0-5 years

Jurisdiction: Riverdale

Action ID: 1.1

Action considered: Add tornado siren in Haven Acres subdivision

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	-	+	+	-	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

#### **Comments:**

**Benefit:** Provides tornado and severe storm warning to a residential area that cannot hear other

warning sirens

Cost/Funding Source: Riverdale's annual budget/ Grant funding

Responsible Party: City Council

**Timeframe for Completion:** 0-5 years

Action ID: 1.2

Action considered: Maintain existing fire equipment

6	TAPLEE Criteria	S	T	A	P	${f L}$	E	E	1
2	TAPLEE CITIETIA	Social	Technical	Administrative	Political	Legal	Economic	Environment	1

Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	ı	-	+	+	-	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

Benefit: Keeps fire and rescue equipment in a response ready state

Cost/Funding Source: Riverdale's annual budget

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing

Action ID: 1.3

Action considered: Purchase additional fire equipment as required

STAPLEE Criteria		S cial	Te	T echn	T chnical Ad		A inist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	_	+	+	-	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

## **Comments:**

Benefit: Keeps fire equipment up-to-standard, modern, and with newer technology

Cost/Funding Source: Riverdale's annual budget/ Grant funding

Responsible Party: Fire Chief, City council, Mayor

# Action ID: 1.4

**Action considered:** Distribute the "File of Life" kit to each citizen of Riverdale. Make sure that each resident understands the importance of medical information readily available

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations		nt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	-	+	+	ı	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

#### **Comments:**

**Benefit:** Public safety: Provides, first responders, emergency medical personnel with a patient's

medical history

Cost/Funding Source: Riverdale's annual budget

**Responsible Party:** Fire chief

**Timeframe for Completion:** 0-5 years

# Action ID: 2.1

**Action considered:** Install new stormwater sewer lines or replace existing stormwater sewer lines with appropriately sized sewers as city land use changes

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	_	-	+	+	-	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

## **Comments:**

**Benefit:** Reduces potential flooding and soil erosion

Cost/Funding Source: Riverdale's annual budget/ Grant funding

**Responsible Party:** City Council

**Timeframe for Completion:** Ongoing (need based)

# Action ID: 3.1

**Action considered:** Revise the severe winter storms snow removal plan to keep City Hall/Fire Department clear and open, followed by clearing 1-1/2 lanes open on all roads, and finally clearing all roads completely

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	ı	_	+	+	ı	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

#### **Comments:**

**Benefit:** Quicker opening of residential roadways

**Cost/Funding Source:** None required **Responsible Party:** City Council

**Timeframe for Completion:** 0-5 years

Action ID: 5.1

**Action considered:** Continue education and certification of firefighters

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A Iministrative			P olitic	al		L Legal		]		E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	-	_	+	+	-	+	n/a	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

#### **Comments:**

**Benefit:** Provides skilled and knowledgeable firefighters **Cost/Funding Source:** Grants and Riverdale's annual budget

Responsible Party: Fire chief

# ${\it Jurisdiction: Walcott}$

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		_	E omic			Er	E viro	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	+	+	+	+	+

**Comments:** 

**Benefit:** Protect human life and public health from the impacts of hazards

**Cost/Funding Source:** N/A **Responsible Party:** Fire Chief

**Timeframe for Completion:** Ongoing

Action ID: 1.2

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria		S cial	Te	T Technical		A Administrative			P Political			L Legal			E Economic				E Environment				
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	w/F
	+	+	+	+	n/a	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Promote in monthly newsletter

Benefit: Protect human life and public health from the impacts of hazards

**Cost/Funding Source:** N/A (free publication)

**Responsible Party:** City Clerk's Office **Timeframe for Completion:** Ongoing

Action ID: 1.3
Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal				E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	_	+	+	+	+	n/a	n/a	n/a	+	-	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** 

**Benefit:** Protect human life and public health from the impacts of hazards

Cost/Funding Source: Grants/Bonds

Responsible Party: City Staff

**Timeframe for Completion:** 5-10 years

Action ID: 1.4
Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a	n/a

**Comments:** 

Benefit: Protect human life and minimize vulnerability of property

Cost/Funding Source: General Fund

Responsible Party: Public Works Department

Action ID: 2.1
Action considered: Establish natural vegetation buffers and removal of dead vegetation next to sensitive lands and forestry improvements such as tree plantings

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a

Comments: Incorporate into Recreational Trail project

**Benefit:** Minimize flash flooding **Cost/Funding Source:** Donations **Responsible Party:** City Staff

**Timeframe for Completion:** 5-10 years

Action ID: 4.1
Action considered: Educate the public on the dangers of lightning

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitic	cal		L Legal	l		Econ	E omic			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Educate in monthly newsletter

**Benefit:** Public communication, education and awareness of hazards

**Cost/Funding Source:** N/A (free publications)

**Responsible Party:** City Clerk's Office **Timeframe for Completion:** Ongoing

Action ID: 4.2
Action considered: Notify the public on warming shelter locations

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A inist	rative	P	P olitic	al		L Legal	1			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Comments: Use local newsletter, media, and city website

**Benefit:** Improve public communication, education, and awareness **Cost/Funding Source:** General Fund - Generator costs at Fire Station

**Responsible Party:** City Staff

**Timeframe for Completion:** Ongoing

Action ID: 4.3
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitic	cal		L Legal	l		Econ	_			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Educate in local newsletter

**Benefit:** Improve public communication, education, and awareness

**Cost/Funding Source:** N/A

**Responsible Party:** City Clerk's Office **Timeframe for Completion:** Ongoing

Action ID: 4.4
Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	P	P olitic	al	ı	L Lega	1		I Econ	E omic			En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Utilize local newsletter, media, and website

**Benefit:** Improve public communication, education, & awareness

**Cost/Funding Source:** N/A **Responsible Party:** City Staff

Timeframe for Completion: Ongoing

Action ID: 4.5
Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria		S cial	Те	T echn	ical	Adı	A minist	rative	Po	P olitic	al		L Legal	l		_	E omic			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Educate in monthly newsletter

**Benefit:** Improve public communication, education & awareness

**Cost/Funding Source:** N/A

**Responsible Party:** City Clerk's Office **Timeframe for Completion:** Ongoing

Action ID: 4.6
Action considered: Educate citizens on fire hazards and what to do in the event of a fire

S	STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitic	al		L Legal	l		I Econ	_			En	E viron	ment	
	Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	n/a	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Educate in monthly newsletter

**Benefit:** Improve public communication, education & awareness

**Cost/Funding Source:** N/A

**Responsible Party:** City Clerk's Office **Timeframe for Completion:** Ongoing

Action ID: 4.7

Action considered: Educate citizens on the importance of smoke detectors and encourage their

use

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitic	cal		L Legal	l		_	E omic			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** Educate in monthly newsletter and schools

**Benefit:** Improve public communication, education & awareness

**Cost/Funding Source:** N/A **Responsible Party:** City Staff

Action ID: 4.8

Action considered: Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria		S cial	Те	T echn	ical	Adı	A minist	rative	P	P olitic	al		L Legal	l		I Econ	E omic			En	E viror	ment	
Considerations		nt															Goals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	+	+	+	n/a	n/a

**Comments:** Promote & educate in monthly newsletter

**Benefit:** Improve public communication, education, & awareness

**Cost/Funding Source:** N/A **Responsible Party:** City Staff

Timeframe for Completion: Ongoing

Action ID: 4.9
Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adı	A minist	rative	Po	P olitic	al		L Legal	l		F Econ				En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Comments: Utilize local newsletter, media, and website

Benefit: Improve public communication, education, and awareness. Minimize disaster impact

**Cost/Funding Source:** N/A **Responsible Party:** City Staff

# Jurisdiction: Unincorporated Scott County

**Action ID: 1.1** 

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria		S cial	Te	T echn	1		A inist	rative	P	P olitic	al		L Legal				E 10mic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	+	n/a	n/a

**Comments:** In-place via Tier 2 reporting requirements

Benefit: Safety of first responders and community

**Cost/Funding Source:** Existing

Responsible Party: Tier 2 facilities, Iowa DNR, EMA

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Create detour and road closure plans for flooded areas

STAPLEE Criteria		S cial	Te	T echnic	cal	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	-	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	n/a	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** In-place plans via Public Works and Law Enforcement

Benefit: Citizen Protection and ease of traffic flow

**Cost/Funding Source:** Existing

Responsible Party: Public Works/Engineer, Law Enforcement, EMA

Action ID: 1.3
Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	Soc		Те	T	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+	n/a

**Comments:** In-place; radios provided to schools via federal grant; radios provided community governmental bodies via grant

Benefit: Individual and community safety; advance warning and instant impact information

**Cost/Funding Source:** Not available at this time; future grant possibility; individual purchases at < \$50.00

**Responsible Party:** EMA

**Timeframe for Completion:** Ongoing

Action ID: 1.4
Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	-	n/a	-	-	-	+	+	-	+	_	n/a	-	n/a	n/a	n/a	+	+

**Comments:** Would require approval of ordinance amendments to require safe room in mobile home parks and similar facilities

**Benefit:** Vulnerable populations would have secure shelter in storms **Cost/Funding Source:** Not identified, possible Hazard Mitigation grants

**Responsible Party:** Scott County and Mobile Home Park owners

**Timeframe for Completion:** 5-10 years

Action ID: 1.5

**Action considered:** Complete or update land use ordinances, codes and regulations to decrease risk in areas susceptible to hazards

STAPLEE Criteria		S cial	Te	T echn	T chnical Add		A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	ommunity Acceptance	Effect on Population Segment	echnical Feasibility	ong-term Solution	econdary Impacts	Staffing	Funding Allocated	Aaintenance/Operations	Political Support	ocal Champion	Public Support	State Authority	xisting Local Authority	Potential Legal Challenge	Benefit of Action	ost of Action	ontributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	I +	+	+	+	<b>V</b> +	+	+	+	+	+	1 +	+	+	+	n/a	+	n/a	n/a	+	+

**Comments:** Scott County was first county in Iowa to adopt Zoning Ordinance and has adopted and updated its Comprehensive Development Plan every 3 to 5 years since 1980

**Benefit:** 

Cost/Funding Source: Staff time

Responsible Party: Scott County Planning & Development, Planning and Zoning Commission

and Board of Supervisors

Timeframe for Completion: Ongoing

Action ID: 1.6

**Action considered:** Ensure each public critical facilities have back-up generators

STAPLEE Criteria		S cial	Te	T echn			A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	-	-	-	+	+	n/a	-	n/a	n/a	n/a	+	n/a

**Comments:** Promote acquisition of back-up generation for essential public services and care centers

**Benefit:** Maintain regular level of service/operations in times of power outages

Cost/Funding Source: Costly endeavor with no regular funding sources outside of

organization. Possible future federal funding sources will be monitored

**Responsible Party:** EMA with local jurisdictions and primary care facilities

**Timeframe for Completion:** Ongoing

Action ID: 1.7

**Action considered:** Construct public safe rooms for government facility functions, critical facility functions, recreational areas, manufactured home parks, schools, and day care centers

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	n/a	_	+	+	+	+	n/a	n/a	n/a	+	+	+	+	n/a	n/a	n/a	+	+

**Comments:** No existing legal authority to require this construction; however it is a

recommended consideration

**Benefit:** Public safety

**Cost/Funding Source:** Project dependent if implemented. Jurisdictions able to apply for grants

via State and Federal hazard mitigation funding associated with existing Presidential

**Declarations** 

Responsible Party: Board of Supervisors, City Governments

**Timeframe for Completion:** 5-10 years (Adoption of resolutions and available funding will

determine any completion date)

Action ID: 2.1

**Action considered:** Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

**Benefit:** Improved compliance with floodplain regulations

Cost/Funding Source: Staff time

**Responsible Party:** Scott County Planning & Dev., P&Z Commission and Bd. of Supervisors

Action ID: 2.2
Action considered: Adopt and enforce current building codes

STAPLEE Criteria		S cial	Te	T echn	_		A ninist	rative	P	P olitic	al		L Legal	l			E nomic	2		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+

**Comments:** Scott County regularly (every three years) adopts update of International Building Code in conjunction with other jurisdictions in the Quad City Area

**Benefit:** Improve building safety and reduce damage due to natural disasters or manmade hazards

**Cost/Funding Source:** Generated from fees paid for building permits

Responsible Party: Scott County Planning and Development

**Timeframe for Completion:** Ongoing

Action ID: 2.3

Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria		S cial	Te	T echn	1		A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** A stated goal of the Scott County Comprehensive Plan since 1980

Benefit: Reduce likelihood or urban sprawl and preserve prime farmland

Cost/Funding Source: Staff time

Responsible Party: Scott County Planning & Development, Planning and Zoning Commission

and Board of Supervisors

Action ID: 2.4
Action considered: Develop and implement stormwater regulations and drainage plans

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal			_	E 10mic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	+	n/a

**Comments:** Stormwater management plans are required with development of proposed residential subdivision and with all commercial and industrial development

Benefit: Reduce severity of flooding and Improve water quality

**Cost/Funding Source:** Private developers

Responsible Party: Board of Supervisors with the advise and input of Planning & Zoning

Commission

**Timeframe for Completion:** Ongoing

Action ID: 2.5

Action considered: Participate in the Community Rating System

STAPLEE Criteria		S cial	Те	T echn	1		A inist	rative	P	P olitic	al		L Legal	ļ		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	_	-	+	+	_	+	+	+	+	-	+	+	+	n/a	n/a	+	+

**Comments:** 

**Benefit:** Provides for lower flood insurance rates within rural Scott County

**Cost/Funding Source:** Staff time

Responsible Party: Scott County Planning & Development, Planning and Zoning Commission

and Board of Supervisors

**Timeframe for Completion:** 0-5 years

Action ID: 3.1

Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	-	-	_	+	+	+	+	+	+	+	_	+	-	n/a	n/a	n/a	n/a	n/a

Comments: In accordance with Scott County Disaster Recovery Plan

Benefit: Better able to maintain continuity of critical operations during and after disasters

**Cost/Funding Source:** Scott County

Responsible Party: Facilities and Support Service and Information Technology

**Timeframe for Completion:** Ongoing

Action ID: 3.2

**Action considered:** Complete watershed and hydrology studies of the creeks and rivers within Scott County

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**Comments:** 

**Benefit:** More accurate data to generate floodplain maps

**Cost/Funding Source: FEMA** 

Responsible Party: Planning and Development

**Timeframe for Completion:** 5-10 years

Action ID: 3.3
Action considered: Replace or retrofit bridges and culverts to meet capacity requirements

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+

**Comments:** 

Benefit: Safer roads

Cost/Funding Source: County Road Use Tax

Responsible Party: Scott County Secondary Roads

**Timeframe for Completion:** 5-10 years

Action ID: 4.1

**Action considered:** Educate the public and businesses about NFIP and the floodplain in general

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+

Comments: Scott County has participated in the National Flood Insurance Program since 1977

Benefit: Improved compliance with floodplain regulations

Cost/Funding Source: Staff time

Responsible Party: Scott County Planning and Development

Action ID: 4.2
Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	1	J	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

Benefit: Public safety

**Cost/Funding Source:** Existing

**Responsible Party:** EMA in conjunction with NWS and area PIOs

Timeframe for Completion: Ongoing

Action ID: 4.3

**Action considered:** Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l	1	_	E nomic	:		En	E viron	ment	
Considerations		nt															oals			es			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Go	Outside Funding Required	Effect on Land/Water	Effect on Endangered Specie	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Existing program

**Benefit:** Personal and public safety

Cost/Funding Source: Existing funding

Responsible Party: EMA in conjunction with NWS and local jurisdictions

Action ID: 4.4
Action considered: Communicate the locations of community shelters

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	-	+	+	+	+	+	+	+	-	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	+	+

**Comments:** Existing program

Benefit: Provide public with temporary safe location in times of natural or technological

incident

Cost/Funding Source: Existing funding

**Responsible Party: EMA** 

Timeframe for Completion: Ongoing

### Action ID: 4.5

**Action considered:** Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	ļ		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

#### **Comments:**

**Benefit:** Lessen potential for injuries and death from house fires **Cost/Funding Source:** Private sources and possible grant funding **Responsible Party:** Scott County Planning and Development

Action ID: 4.6
Action considered: Create multi-lingual educational materials for hazards

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	ı			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** Multi-lingual education or notification information can be a function of jurisdictional PIO supported by VOAD organizations, Health and Human Services and EMA

**Benefit:** Public awareness and safety

Cost/Funding Source: Would have to come from primarily from existing sources. EMA would

advise of any grant opportunities

Responsible Party: State, County, and City Governments

**Timeframe for Completion:** 5-10 years

Action ID: 4.7

**Action considered:** Promote the Waste Commission of Scott County Household Hazardous Material collection facilities for proper disposal of household hazardous waste

STAPLEE Criteria		S cial	Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations	e	gment						SI					ty	nge			ic Goals	red		Species	Sites	ınity	aws
For Alternative Actions	Community Acceptance	Effect on Population Seg	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challen	Benefit of Action	Cost of Action	Contributes to Economi	Outside Funding Required	Effect on Land/Water	Effect on Endangered S	Effect on HAZMAT Si	Consistent w/ Commu Environmental Goals	Consistent w/ Federal L
	+	+	+	+	+	-	_	_	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+

**Comments:** Waste Commission of Scott County collects, recycles, or properly disposes of household hazardous waste at no cost to Scott County residents

**Benefit:** Residents of Scott County

**Cost/Funding Source:** Existing tipping fees

Responsible Party: Waste Commission of Scott County

## Action ID: 4.8

**Action considered:** Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal		]	_	E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	-	_	+	-	_	_	+	+	+	+	+	+	+	+	n/a	_	+	n/a	n/a	+	n/a

**Comments:** United Way is no longer the lead agency so need to establish a new lead agency for VOAD

**Benefit:** Reduces the risk to vulnerable population

**Cost/Funding Source:** Staff time and supplies for agencies listed below under Responsible Party

Responsible Party: Community partners: EMA, Scott Co. Health Dept,, VOAD, Red Cross,

and Salvation Army

**Timeframe for Completion:** 0-5 years

#### Action ID: 4.9

**Action considered:** Monitor water levels and notify the public when flooding will occur and where

STAPLEE Criteria	-	S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	•		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	+	+

**Comments:** In place

Benefit: Advance notification to allow time to review plans and initiate protective actions

**Cost/Funding Source:** Existing funding

Responsible Party: EMA in coordination with NWS and jurisdictions

Action ID: 5.1
Action considered: Require First Responders to have rescue plans for severe weather

5	STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A ninist	rative	P	P olitic	al		L Legal	l		_	E 10mic	2		En	E viron	ment	
	Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

Comments: In place

Benefit: Emergency preparedness, public safety

Cost/Funding Source: Existing funding

Responsible Party: EMA, local responders, Sheriff Office

**Timeframe for Completion:** Ongoing

Action ID: 5.2

**Action considered:** Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	+	n/a	n/a

**Comments:** In place mutual aid /28E agreements

**Benefit:** Husband resources **Cost/Funding Source:** Existing

Responsible Party: EMA, local response organizations

Action ID: 5.3
Action considered: Join the Iowa Floodplain and Stormwater Management Association

STAPLEE Criteria		S cial	Te	T echn	T chnical Ad		A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	n/a	+	n/a	+	+	+

Comments: Scott County has recently joined and Planning Director is now Certified Floodplain

Manager

**Benefit:** Increased compliance with Floodplain regulations

Cost/Funding Source: Staff time

Responsible Party: Scott County Planning & Development

Timeframe for Completion: Ongoing

Action ID: 5.4

**Action considered:** Establish workshops and training functions for all community floodplain managers

STAPL	EE Criteria	So		Те	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Alte	derations  For ernative ctions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** 

Benefit: Improved compliance with floodplain regulations

**Cost/Funding Source:** Possible grants and existing training budgets

**Responsible Party:** Local jurisdictions **Timeframe for Completion:** Ongoing

# Jurisdiction: Bettendorf Community School District

**Action ID: 1.1** 

Action considered: Consider safe room construction where vulnerable populations may not

have other sources of shelter

STAPLEE Criteria		S cial	Te	T echnical A		Adm	A ninist	rative	P	P olitic	al		L Legal	l			E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	-	-	-	+	-	+	+	n/a	+	+	+	n/a	+	+	n/a	+	n/a	n/a	n/a	n/a	n/a

**Comments:** Needs to be discussed with the Board of Education

**Benefit:** Additional shelter for District

Cost/Funding Source: Local Option Sales Tax/PPEL

**Responsible Party:** Board of Education **Timeframe for Completion:** 5-10 years

Action ID: 1.2

Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria		S cial	Te	T echnical A		Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	_	+	_	+	+	n/a	+	+	+	n/a	-	_	_	+	n/a	n/a	n/a	n/a	n/a

**Comments:** Needs to be discussed with the Board of Education

Benefit: Providing power for immediate medical needs for the community

Cost/Funding Source: Local Option Sales Tax/PPEL

**Responsible Party:** Board of Education **Timeframe for Completion:** 5-10 years

Action ID: 4.1
Action considered: Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1	_	E nomic	:		En	E viron	ment	
Considerations		ent															oals			ies			
For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic G	Outside Funding Required	Effect on Land/Water	Effect on Endangered Speci	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	+	_	+	+	n/a	+	+	+	+	+	_	_	_	n/a	n/a	n/a	n/a	n/a

**Comments:** Needs to be discussed with the Board of Education

**Benefit:** Timely information and immediate alert system **Cost/Funding Source:** Local option sales tax/PPEL

**Responsible Party:** Board of Education **Timeframe for Completion:** 5-10 years

## Jurisdiction: North Scott Community School District

Action ID: 1.1

**Action considered:** Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T chni	cal	Adm	A ninistr	ative	Po	P olitic	al		L Legal	l		Eco	E nomi	c		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	n/a	+	n/a	n/a	n/a	n/a	+	+	+	n/a	n/a	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

Comments: Community and schools lack adequate safe shelter

**Benefit:** Protect students and community

**Cost/Funding Source:** \$5,000,000.00/Grants and School District Resources **Responsible Party:** North Scott Community School District, School Board

**Timeframe for Completion:** 0-5 years

Action ID: 1.2
Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria		S cial	Te	T echnical Ad		Adn	A ninistr	ative	Po	P olitic	al		L Legal	l			E nomic	:		Env	E vironi	nent	
Considerations	ex.	Segment						su					ity	nge			nic Goals	ired		Species	Sites	unity	Laws
For Alternative Actions	Community Acceptance	Effect on Population So	Fechnical Feasibility	ong-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	ocal Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic	Outside Funding Required	Effect on Land/Water	Effect on Endangered	Effect on HAZMAT Si	Consistent w/ Community Environmental Goals	w/ Federal
	+	+	n/a	+	n/a	n/a	n/a	n/a	+	+	+	n/a	n/a	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** We would like to provide the safe room with its own back-up power supply **Benefit:** In the event of an emergency, local power would most likely be unavailable

**Cost/Funding Source:** \$87,000.00/Grants and School District Funding **Responsible Party:** North Scott Community School District, School Board

**Timeframe for Completion:** 0-5 years

Action ID: 4.1

**Action considered:** Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	1	_	E nomic	:		En	E viron	ment	
Considerations  For	ceptance	Segment	ility	lon	cts		pe	/Operations					uthority	Challenge	1		conomic Goals	Required	Water	gered Species	AT Sites	Community Goals	Federal Laws
Alternative Actions	Community Acc	Effect on Population	Technical Feasibility	Long-term Solution	Secondary Impac	Staffing	Funding Allocated	Maintenance/Opo	Political Support	Local Champion	Public Support	State Authority	Existing Local A	Potential Legal C	Benefit of Action	Cost of Action	Contributes to Ec	Outside Funding	Effect on Land/W	Effect on Endangered	Effect on HAZM	Consistent w/ C Environmental G	Consistent w/ Fe
	+	+	+	+	n/a	n/a	+	+	+	+	+	n/a	n/a	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

**Comments:** The School District would like to provide dependable weather radios in each building office

**Benefit:** Building staff will be aware of weather alerts

Cost/Funding Source: \$250.00/Grant and School District Funding

Responsible Party: North Scott Community School District, School Board

**Timeframe for Completion:** 0-5 years

# Jurisdiction: Pleasant Valley Community School District

Action ID: 1.1

**Action considered:** Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		Eco	E onom	ic		En	E viron	ment	
Considerations  →  For  Alternative  Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	-	+	+	+	_	-	n/a	n/a	n/a	n/a	n/a	n/a	+	+	+	+	-	n/a	n/a	n/a	n/a

**Comments:** Evaluate on a school by school basis

**Benefit:** Students and community **Cost/Funding Source:** N/A

Responsible Party: Superintendent

**Timeframe for Completion:** 5-10 years (Or as funding becomes available)

Action ID: 1.2
Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria		S cial	ial Technical A		Adm	A ninist	rative	P	P olitic	al		L Legal			_	E nomic	:		En	E viron	ment		
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**Comments:** Evaluate on a school by school basis

**Benefit:** Students and community **Cost/Funding Source:** N/A

Responsible Party: Superintendent

**Timeframe for Completion:** 5-10 years (Or as funding becomes available)

### Action ID: 4.1

**Action considered:** Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Comments: Evaluate on a school by school basis

**Benefit:** Students and community **Cost/Funding Source:** N/A

Responsible Party: Superintendent

**Timeframe for Completion:** 5-10 years (Or as funding becomes available)

## Jurisdiction: Eastern Iowa Community College District (EICC) Scott County Campuses

Action ID: 1.1

**Action considered:** Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al	ı	L Lega	ıl		I Econ	E omic			En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	_	+	-	+	+	+	-	+	-	+	-	-	_	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** This may be an option and a value at several of our remote locations

Benefit: Student and customer care and safety

Cost/Funding Source: \$100,000.00 No source of funding identified

**Responsible Party:** Institution

**Timeframe for Completion:** 5-10 years (This would have to be identified as a priority for the

District and funding identified prior to establishing a schedule for completion)

Action ID: 1.2
Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria		S cial	Te	T echn	ical	Adn	A ninist	rative	P	P olitic	al		L Legal	ı		_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	n/a	_	+	n/a	+	n/a	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	n/a	+	n/a

**Comments:** The District already maintains two backup generators at the Kahl Educational Center to protect and maintain network and IT functions should there be a major power outage

**Benefit:** The different District facilities could continue to operate should there be a major power outage

**Cost/Funding Source:** \$100,000.00 per site. No source of funding identified

**Responsible Party:** Institution

**Timeframe for Completion:** 5-10 years (This would have to be identified as a priority for the

District and funding identified prior to establishing a schedule for completion)

Action ID: 4.1

**Action considered:** Provide NOAA weather radios to schools, municipal buildings, and public assembly facilities where large groups of people may congregate

STAPLEE Criteria		S cial	Te	T echn	ical	Adm	A inist	rative	P	P olitic	al		L Legal	l	]	_	E nomic	:		En	E viron	ment	
Considerations  For Alternative Actions	Community Acceptance	Effect on Population Segment	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/Water	Effect on Endangered Species	Effect on HAZMAT Sites	Consistent w/ Community Environmental Goals	Consistent w/ Federal Laws
	+	+	+	+	+	+	-	+	+	-	+	n/a	n/a	n/a	+	_	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Comments:** This could be a very useful tool in alerting the different locations of impending crisis

Benefit: Could help the District in effectively implementing its Emergency Readiness Plan

Cost/Funding Source: \$50.00/unit. No source of funding identified

**Responsible Party:** Institution

**Timeframe for Completion:** 5-10 years (This would have to be identified as a priority for the

District and funding identified prior to establishing a schedule for completion)

APPENDIX V-1 PLAN UPDATES



Serving local governments in Muscatine and Scott Counties, Iowa; Henry, Mercer and Rock Island Counties, Illinois.

## **MEMORANDUM**

TO: Scott County Multi-Jurisdictional Hazard Mitigation

Planning Committee

FROM: Laura Berkley, Senior Planner

DATE: January 30, 2013

RE: Update to Chapter II and Chapter III

The City of Davenport has requested Chapter II – Plan Process and the individual risk assessment profile for the City of Davenport in Chapter III be updated to reflect their newly completed Energy Assurance Plan effective January 2013. The Energy Assurance Plan, done in conjunction with Scott County inventoried critical facilities within Davenport and Scott County, and outlines what both the City and County have and need in cases of prolonged energy failure in order to maintain basic services for the community. The plan also outlines procedures to be taken in the event of energy failure. The document itself is an internal document not available for public review; however it is important to note the existence of this document.

This memo serves as an update of Chapter II – Plan Process, *Existing Mechanisms* (page 8) for the City of Davenport and Scott County to list the Energy Assurance Plan 2013 in Table II-1. Chapter V- Plan Maintenance, *Incorporation Into Existing Planning Mechanisms* (page 251) will now state that the Energy Assurance Plan 2013 was done concurrently with the Scott County Multi-Jurisdictional Hazard Mitigation Plan and finished in January 2013. Information from the plan was incorporated into the Energy Assurance Plan. When the Scott County MJHMP is due to be updated (by August 2016) the Energy Assurance Plan will be fully reviewed and incorporated into the MJHMP where appropriate.

This memo has been placed in Appendix V-1 Plan Updates as the record of the update and intention to fully incorporate the Energy Assurance Plan into the 2016 MJHMP during the plan update process.

1504 Third Avenue, P.O. Box 3368, Rock Island, Illinois 61204-3368 Phone (309) 793-6300, Fax (309) 793-6305 E-mail: info@bistateonline.org • Website: www.bistateonline.org

OFFICERS: CHAIR Danny McDaniel

> VICE-CHAIR Larry Minard

John Thodos

TREASURER Kas Kelly

MUNICIPAL REPRESENTATIVES: City of Davenport Bill Gluba, Mayor

Bill Gluba, Mayor Sheilia Burrage, Alderperson Jason Gordon, Alderman Hap Volz, Citizen

City of Rock Island Dennis Pauley, Mayor Chuck Austin, Alderman

City of Moline Don Welvaert, Mayor Sean Liddell, Alderman

City of Bettendorf Bob Gallagher, Mayor

City of East Moline
John Thodos, Mayor

City of Muscatine

DeWayne Hopkins, Mayor

City of Kewanee Bruce Tossell, Mayor

City of Silvis; Villages of Andalusia, Carbon Cliff, Coal Valley, Cordova, Hampton, Hillsdale, Milan, Oak Grove, Port Byron, and Rapids City Ken Williams, Mayor, Carbon Cliff

Cities of Aledo, Colona, Galva, Geneseo; Villages of Alpha, Andover, Atkinson, Cambridge, New Boston, Orion, Sherrard, Viola, Windsor, and Woodhull Danny McDaniel, Mayor, Colona

Cities of Blue Grass, Buffalo, Eldridge, Fruitland, LeClaire, Long Grove, McCausland, Princeton, Riverdale, Walcott, West Liberty, and Wilton Marty O'Boyle, Mayor, Eldridge

COUNTY REPRESENTATIVES: Henry County Tim Wells, Chair Dennis Anderson, Member Vacant, Member

Mercer County Vacant

Muscatine County Kas Kelly, Chair Jeff Sorensen, Member

Rock Island County Jim Bohnsack, Chair Tom Rockwell, Member Vacant, Member Elizabeth Sherwin, Citizen

Scott County Tom Sunderbruch, Chair Carol Earnhardt, Member Larry Minard, Member Celia Rangel, Citizen

PROGRAM REPRESENTATIVES: Cheryl Goodwin Ralph H. Heninger Nathaniel Lawrence Rick Schloemer Bill Stoermer Jim Tank Rory Washburn

> Executive Director Denise Bulat

