Scott County, Iowa

Multi-Jurisdictional

Hazard Mitigation Plan

2018

Scott County

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Hazard Mitigation Plan

2018

This document was prepared by:

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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 natural hazards referenced in the 2013 *Iowa Hazard Mitigation Plan*. 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 update process. Fifteen of the incorporated municipalities, four 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 2 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 primary contact or more 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. An e-mail subscription through the website was available 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 for the process as a whole, and afforded with hazards goals and priority review at respective board or council meetings, and as part of their respective adoption process.

Chapter 3 of the plan addresses hazard analysis and risk assessment. Sixteen natural and 24 human-caused hazards were identified for the planning area and profiled in the original plan adopted in 2012. This update focuses on natural hazards. A scoring methodology was agreed upon by the Planning Committee for the original plan and was used as an objective means of establishing an initial priority ranking of the hazards. That same methodology was used for the plan update but only considered natural hazards.

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 4 of the plan develops the mitigation strategy. First, local hazard mitigation goals and objectives were established for the county-wide planning area in the 2012 plan. These were reviewed and/or revised as part of the update process. In the 2012 plan, 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. The goals and objectives established from that original effort were reaffirmed by each jurisdiction in the plan update. Plan participants were also asked to review their mitigation actions, provide a status update for each, and provide any new mitigation actions they wish to pursue. 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 5 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 5 provides for the schedule of continued plan maintenance and continued public input.

1 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, school districts, and community college. As such, Scott County has adopted this multi-jurisdiction local hazard mitigation plan process and updated document in accordance with FEMA standards. A copy of the signed resolution as adopted November 2, 2017 follows.

Plan Adoption

In addition to Scott County, fifteen incorporated municipalities, four 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 Appendix I-2.

Participating Jurisdiction	Date of Plan Adoption
Scott County (includes unincorporated)	11/2/17
City of Bettendorf	11/7/17
City of Blue Grass	TBD
City of Buffalo	TBD
City of Davenport	11/21/17
City of Dixon	TBD
City of Donahue	11/6/17
City of Eldridge	TBD
City of LeClaire	TBD
City of Long Grove	TBD
City of Maysville	TBD
City of Panorama Park	TBD
City of Princeton	12/14/17
City of Riverdale	TBD
City of Walcott	TBD
Bettendorf Community School District	9/18/17
Davenport Community School District	TBD
North Scott Community School District	TBD
Pleasant Valley Community School District	TBD
Eastern Iowa Community College District (Scott County Campuses)	TBD

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. Similarly, the cities of McCausland and New Liberty were included in the plan advisory group as they chose not to participate in the full planning process.

The remaining participating jurisdictions took part in the planning process as more fully described in the "Plan Process" section. At the initial kick-off meeting held September 15, 2016, it was discussed that satisfactory participation in the plan update process consisted of the following: designate a primary contact, submit inventory and review of existing planning mechanisms, review and updated 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 providing oversight on research, reviewing document drafts, and approving the plan process and final document. Local jurisdictions responded to requests for data, provided information when conditions in an individual jurisdiction varied from the entire county-wide planning area, and took hazards goals and priorities to board and/or council meetings for public comment.

2 PLAN PROCESS

Scott County was awarded a grant from the Federal Emergency Management Agency (FEMA) under its Hazard Mitigation Grant Program HMGP to develop an updated 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 19, 2016 with an approved performance period dated from February 19, 2016 through August 19, 2018. 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 August 1, 2016. To assure compliance with the process for developing the plan document, the *Local Mitigation Plan Review Crosswalk* from FEMA dated October 1, 2011 was used for guidance in meeting the requirements of the plan.

The *Scott County Multi-Jurisdictional Hazard Mitigation Plan* will be an update from the plan adopted in 2012. The plan update will include thirteen incorporated municipalities, four community school districts, and one community college district.

The first meeting of the Planning Committee was held on September 15, 2016. 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 *2013 State of Iowa Hazard Mitigation Plan* and the hazards that might be considered in the hazard assessment portion of the plan. A plan update time schedule by the Planning Committee was agreed upon, and later revised to expedite the update process to address changes in FEMA's policy on plan waivers. The 2012 plan lapsed September 1, 2017 and required an accelerated timeline to allow for local jurisdictions to apply for pre-disaster mitigation funds.

Who was involved

The Scott County Emergency Management 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. Bi-State Regional Commission was subcontracted to assist with plan development. Bi-State staff made 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. Bi-State was contracted by Scott County to assist with grant administration, support the plan process, and research and write the plan document. The core Planning Committee is made up of staff and representatives of thirteen participating municipalities, four community school districts, and one community college district in addition to Scott County as follows:

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 Panorama Park

City of Princeton

City of Riverdale

City of Walcott

Scott County (includes unincorporated)

Bettendorf Community School District

Davenport Community School District

North Scott Community School District

Pleasant Valley Community School District

Eastern Iowa Community College District (Scott County Campuses)

Municipalities agreeing 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 2-1) 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.

Plan Development

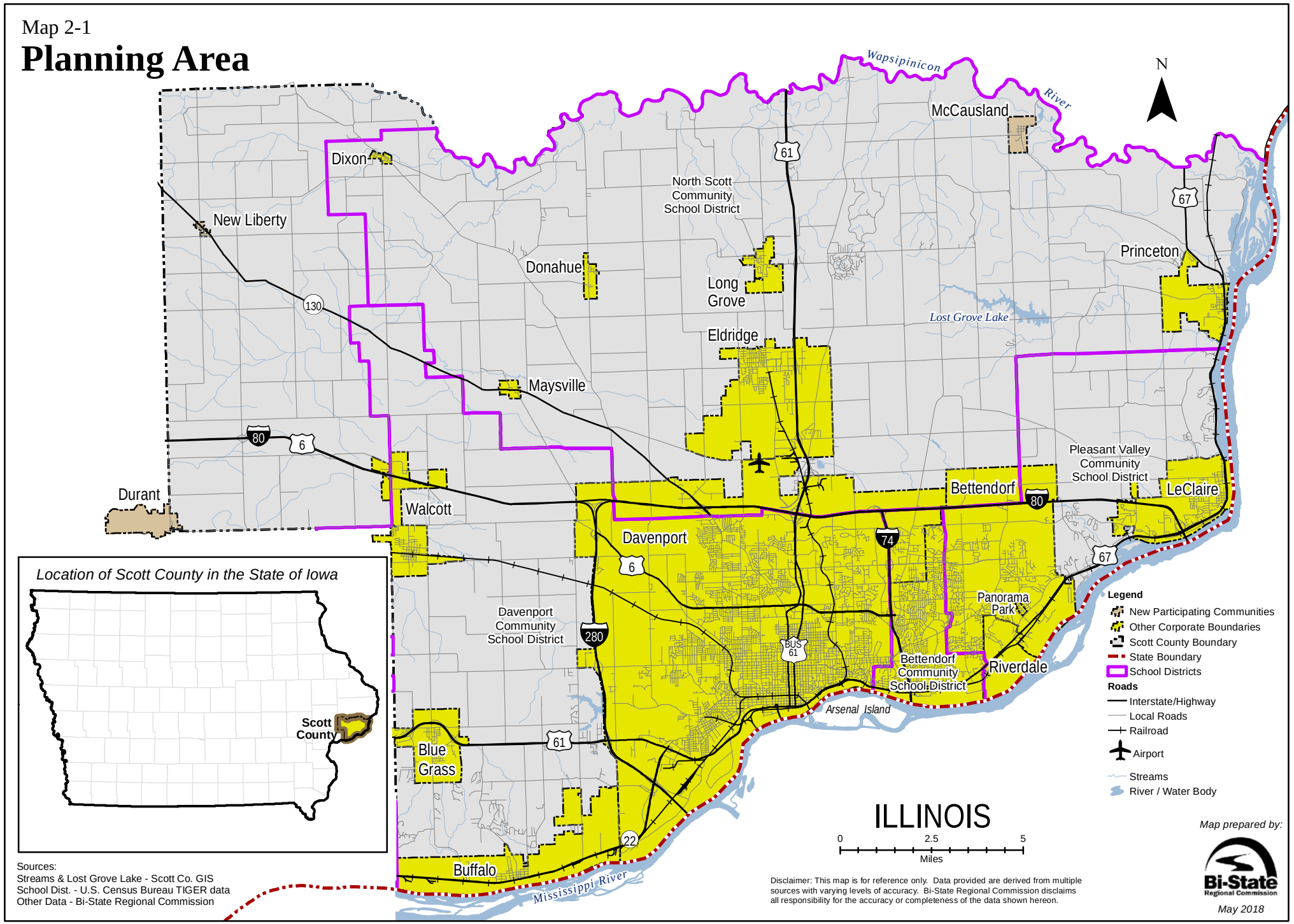
Following the initial meeting, Bi-State staff reviewed each hazard profile to be included in the update. Hazards to be included were limited to the natural hazards required as defined by FEMA excluding hazards that would have no impact to the planning area. A final list of hazards considered in this update can be found in Chapter 3 of this plan. Once the hazard profiles had been updated, the draft profiles were made available to planning committee members and the public via posting on Scott County's website. Comments received were incorporated into the hazard profiles where appropriate.

Concurrently, while updating hazard profiles, Bi-State communicated with participating communities to acquire information regarding critical assets, status of and changes to mitigation actions, and a hazard scoring tool to help determine hazard prioritization. This communication was initiated via memorandum both mailed and e-mailed to individual participating communities. Follow-up was conducted via phone and e-mail to ensure participating communities were able to provide the necessary information. Some communities chose to affirm their input formally at council meetings open to the public.

Once input from communities was received, Bi-State incorporated it into the draft plan. The draft plan was made available for review October 31, 2017 via Scott County's website. That same draft was provided to Iowa Department of Homeland Security and Emergency Management (IDHSEM) for review. Comments received from IDHSEM were incorporated into the plan, and a final draft was submitted to FEMA for review. After addressing technical assistance comments from FEMA the plan was approved by FEMA June 28, 2018.

Map 2-1

Planning Area



Sources:
Streams & Lost Grove Lake - Scott Co. GIS
School Dist. - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

May 2018

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. 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. The City of McCausland elected not to participate in the planning process and was similarly included in the advisory group. 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. Scott County would make use of its website, https://www.scottcountyiowa.com/planning/hazard-mitigation-plan 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. Hazard profiles were posted to the Scott County website prior to a full draft review, and notice was sent through the subscription group as a call for input on the hazards. The plan was also discussed at the Quad City Emergency Planning Committee meeting on September 28, 2017 as part of stakeholder outreach within the emergency planning community.

In order to assure formal notification of public participation in the plan, notice of meetings was published in newspapers of general circulation on at least two occasions, once during the plan update kickoff meeting and once prior to adoption of the plan. Publication of such notices would be included in two official newspapers used for countywide notices: Quad City Times and Bettendorf News. Participating jurisdictions were encouraged to have their own public meetings, and staff offered to make presentations to individual communities on request. A number reaffirmed the plan goals and their respective hazard priorities at council or county board meetings from August to October 2017. The first public meeting with published notification was held September 15, 2016. A public hearing discussing the plan was held on September 19 as part of Scott County's Committee of the Whole meeting. One additional public hearing was conducted on October 31, 2017 for review of a draft plan prior to adoption by Scott County. No public comments were received.

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 October 1, 2011

- FEMA State and Local Mitigation Planning How-To Guides
- 2013 State of Iowa Hazard Mitigation Plan
- Iowa Hazard Analysis and Risk Assessment
- Scott County, Iowa Multi-Jurisdictional Hazard Mitigation Plan 2012

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

Table 2-1
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 Bettendorf		
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

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
Open Space Plan	Y	N
Existing Land Use Map	Y	Y
Emergency Plan	Y	Y
City of Buffalo		
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 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)
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 Dixon		
NONE	N/A	N/A
City of Donahue		
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 LeClaire		
Zoning Ordinance	Y	Y
Subdivision Regulations	Y	Y
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
Emergency Response Plan	Y	Y

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
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 Maysville		
Zoning Ordinance	Y	N
Solid Waste and Hazardous Waste Regulations	Y	N
City of McCausland (2012)		
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
City of New Liberty		
NONE	N/A	N/A
City of Panorama Park		
Floodplain Management Ordinance	Y	Y
City of Princeton		
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

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
Comprehensive/Land Use Plan	Y	Y
Capital Improvement Plan	Y	N
Emergency Response Plan	Y	Y
Existing Land Use Map	Y	Y
City of Riverdale		
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 Walcott		
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 County		
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
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

Existing Program/ Policy/ Technical Documents	Reviewed by Jurisdiction (Yes/No)	Reviewed by Plan Authors and Incorporated into Plan (Yes/No)
Bettendorf Community School District		
Crisis Management Plan	Y	Y
Davenport Community School District		
Crisis Manual	**Y**	**N**
North Scott Community School District		
North Scott Safety Policy	Y	Y
Pleasant Valley Community School District		
Pleasant Valley CSD Crisis Response Guide	Y	Y
Eastern Iowa Community College District		
Emergency Readiness Plan	Y	Y

Incorporation of previous plan into existing planning mechanisms

The large majority of participating jurisdiction stated that the previous approved plan had been reviewed and incorporated into the existing mechanisms listed in Table 2-1 where applicable indicated by the second column of the table. Each jurisdiction also considered the plan, specifically their mitigation actions, when determining their annual budget. Dixon was an exception and did not think the plan was incorporated as they do not have any formal planning mechanisms outside of their annual budget due to their small population.

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) that 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 McCausland
- City of Panorama Park
- City of Princeton
- 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 New Liberty

Since the 2012, it was known that McCausland had begun to participate in the NFIP. However, they chose not participate in this plan update process. The City of Blue Grass has shown interest in taking the necessary steps to participating in the NFIP and is evaluating the merits of participating in the NFIP.

Demographics

This plan utilized the newest Census data that was available at the time complied, specifically the American Community Survey (ACS) 1-year estimates for 2015. The weighted hazard scoring was done with this data set. The individual jurisdiction utilize the 2015 ACS numbers, and the population ranking was done using that data. Appendix II-5 includes a table with the populations of Scott County from 1950 to 2015 to show population growth and decline within Scott County.

3 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 Federal Emergency Management Agency's (FEMA) required natural hazards and natural hazards from *Scott County, Iowa Multijurisdictional Hazard Mitigation Plan, 2012.* Table 3-1 is a comparison table of natural hazards from each of these sources.

Table 3-1
Comparison of Potential Natural Hazards

FEMA	Scott County 2012
Avalanche	—
Coastal Erosion	—
Coastal Storm	—
Dam Failure	Dam Failure
Drought	Drought
Earthquake	Earthquakes
Expansive Soils	Expansive Soils
Extreme Heat	Extreme Heat
Flood	Flash Flood
—	River Flooding
Hailstorm	Hailstorms
Hurricane	—
Land Subsidence	—
Landslide	Landslide
—	Levee Failure
Severe Winter Storm	Severe Winter Storms
—	Sink Holes
—	Thunderstorm & Lightning
Tornado	Tornados
Tsunami	—
Volcano	—
Wildfire	Grass or Wildland Fire
Windstorm	Windstorm

In addition to natural hazards, which are required for consideration in the Local Hazard Mitigation Plan, the *Scott County, Iowa Multijurisdictional Hazard Mitigation Plan, 2012* addressed man-made or human-caused hazards. Those hazards were not included in this plan due to funding constraints, though profiles for those hazards from the previous plan can be found in Appendix VI-1.

Some natural hazards are not examined because they do not occur in the planning area or their effects are not considered significant in relation to other hazards. Table 3-2 lists these hazards and provides a brief explanation for their elimination.

Table 3-2
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. Scott County also decided that Hailstorms could be combined with Thunderstorm and Lightning.

Based on the process discussed above, the Planning Committee identified a total of 14 hazards for the Scott County planning area. These hazards are listed below in alphabetical order.

Dam Failure

Drought

Earthquake

Expansive Soils

Extreme Heat

Flash Flood

Grass or Wildland Fire

Levee Failure

River Flood

Severe Winter Storm

Sinkholes, Land Subsidence and Landslides

Thunderstorm, Hailstorm, and Lightning

Tornado

Windstorm

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

Description

Maximum Extent

Historical Occurrence

Probability (of future events)

Vulnerability (of planning area to future events)

Location

Severity of Effects

Speed of Onset

The hazard profiles are provided for all of the Scott County planning area. As part of the multi-jurisdictional 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 2013 *Iowa Hazard Mitigation Plan* to evaluate the identified hazards for further consideration, ranking, and priority. 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, and 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 3-3 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 3-3
Hazard Scoring Methodology

Probability: Reflects the likelihood of the hazard occurring again in the future, considering both the historical occurrence of the hazard and the projected likelihood of the hazard occurring in any given year		
Score	**Description**	
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.
Magnitude/Severity: Assessment of severity in terms of injuries and fatalities, personal property, and infrastructure, and the degree 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.
Warning Time: Rating 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 warning time	
3	6 to 12 hours warning time	
4	Minimal or no warning (up to 6 hours warning)	
Duration: A measure of the duration of time that the hazard will affect the state		
Score	**Description**	
1	Less than 6 hours	
2	Less than 1 day	
3	Less than 1 week	
4	More than 1 week	

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 2013 *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

Initially, 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. However, as described in the following section, individual scores were removed from the final county-wide ranking.

Table 3-4
Scott County Hazard Scoring

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURRATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	2	3	**1.65**
Drought	2	2	1	4	**2.05**
Earthquake	1	4	4	1	**2.35**
Expansive Soils	1	2	4	3	**1.95**
Extreme Heat	2	2	1	3	**1.95**
Flash Flood	3	3	3	3	**3.00**
Grass and Wildland Fires	3	2	4	2	**2.75**
Hazardous Spills	4	2	4	3	**3.30**
Landslide/Sinkhole	1	1	4	3	**1.65**
Levee Failure	1	2	2	4	**1.75**
River Flood	4	2	1	4	**2.95**
Severe Winter Storm	4	2	1	3	**2.85**
Thunderstorm, Lightning, Hail	4	2	2	2	**2.90**
Tornado	2	4	4	1	**2.80**
Windstorm	4	2	2	2	**2.90**
AVERAGE SCORE	**2.47**	**2.27**	**2.60**	**2.73**	**0.00**

Prioritizing Hazards

The compiled Scott County-wide hazard scores as ranked by the methodology described above were ranked from highest to lowest. In the *Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*, the Planning Committee divided the ranked hazards into three priority levels. This was used as a tool to help each community focus on the most prevalent hazards for their consideration. This plan removes priority levels since the number of hazards considered is drastically less, 15 down from 40. Therefore, a simple ranking based on the scoring methodology noted will suffice.

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.

After review by FEMA, it was determined that the process by which hazards were scored by individual jurisdictions was not sufficiently evidence-based, and in many cases was based more on anecdotal information. At this phase of plan development, it was not feasible to have every jurisdiction re-rank hazards and have it approved at another official meeting. For this reason, it was decided to remove individual scores from the plan. This will be considered a data deficiency for this plan update, but will be addressed in future updates. Each jurisdiction's priorities are, however, retained in their respective community profiles. Table 3-4 presents hazard rankings as provided by Scott County Emergency Management Agency (EMA)

Future processes should begin with a baseline assessment of hazard priorities from the county EMA with variations between communities being justified on an individual basis and included in discussion of the hazard scoring process.

Assessor Data

Property and building data for Scott County was utilized to create Table 3-5. This table shows the total number of parcels by community as well as the total assessed value of land and existing structures.

Table 3-5 is intended to be used in conjunction with vulnerability assessments of hazards that affect the built environment. For example, if 100% of structures are vulnerable to a particular hazard, the total private structural property loss could be equal to the total value of the structures listed in the table.

Table 3-5
Assessed Value of Land and Structures for Scott County

		Agriculture	Residential	Commercial	Industrial	TOTAL
Bettendorf	No. of Parcels	168	13230	599	37	14034
	Value of Structures	$4,596,730	$2,516,672,360	$353,086,920	$37,443,390	$2,911,799,400
	Land Value	$7,298,660	$619,724,800	$122,806,474	$6,474,650	$756,304,584
Blue Grass	No. of Parcels	45	711	77	5	838
	Value of Structures	$1,973,640	$89,324,460	$15,315,010	$838,440	$107,451,550
	Land Value	$1,882,390	$13,756,950	$3,284,740	$265,510	$19,189,590
Buffalo	No. of Parcels	83	523	38	9	653
	Value of Structures	$1,472,130	$42,822,740	$20,055,670	$5,877,920	$70,228,460
	Land Value	$2,593,500	$7,645,110	$4,427,810	$3,077,240	$17,743,660
Davenport	No. of Parcels	761	33028	2502	129	36420
	Value of Structures	$17,616,130	$3,688,457,534	$1,293,175,051	$119,211,670	$5,118,460,385
	Land Value	$31,579,580	$880,771,620	$421,678,527	$21,859,930	$1,355,889,657
Dixon	No. of Parcels	4	103	7	0	114
	Value of Structures	$ –	$8,304,130	$207,660	$ –	$8,511,790
	Land Value	$7,460	$920,410	$53,020	$ –	$980,890
Donahue	No. of Parcels	10	134	11	0	155
	Value of Structures	$559,450	$16,049,650	$2,426,100	$ –	$19,035,200
	Land Value	$269,670	$2,448,340	$255,660	$ –	$2,973,670
Durant	No. of Parcels	5	28	0	0	33
	Value of Structures	$ –	$4,220,210	$ –	$ –	$4,220,210
	Land Value	$92,340	$696,530	$ –	$ –	$788,870
Eldridge	No. of Parcels	146	2000	192	26	2364
	Value of Structures	$2,711,360	$436,798,690	$71,364,670	$13,660,730	$524,535,450
	Land Value	$8,611,570	$73,997,630	$19,007,940	$2,343,320	$103,960,460
LeClaire	No. of Parcels	39	2075	119	3	2236
	Value of Structures	$987,640	$325,904,830	$26,204,420	$772,390	$353,869,280
	Land Value	$2,018,980	$77,708,840	$12,067,740	$187,000	$91,982,560
Long Grove	No. of Parcels	18	320	5	0	343
	Value of Structures	$10,690	$58,040,810	$458,710	$ –	$58,510,210
	Land Value	$959,790	$9,801,810	$101,070	$ –	$10,862,670
Maysville	No. of Parcels	12	63	4	0	79
	Value of Structures	$615,710	$5,700,860	$208,100	$ –	$6,524,670
	Land Value	$271,640	$974,810	$53,550	$ –	$1,300,000

		Agriculture	Residential	Commercial	Industrial	TOTAL
McCausland	No. of Parcels	6	153	17	0	176
	Value of Structures	$567,740	$14,153,100	$1,184,760	$ –	$15,905,600
	Land Value	$226,920	$2,219,580	$246,690	$ –	$2,693,190
New Liberty	No. of Parcels	$1	$89	$25	$1	$116
	Value of Structures	$35,010	$4,893,450	$616,100	$624,670	$6,169,230
	Land Value	$1,310	$839,440	$181,300	$50,450	$1,072,500
Panorama Park	No. of Parcels	0	68	0	0	68
	Value of Structures	$ –	$6,549,760	$ –	$ –	$6,549,760
	Land Value	$ –	$1,223,230	$ –	$ –	$1,223,230
Park View	No. of Parcels	3	751	29	0	783
	Value of Structures	$ –	$128,400,030	$3,966,630	$ –	$132,366,660
	Land Value	$90,880	$24,836,040	$998,220	$ –	$25,925,140
Princeton	No. of Parcels	34	410	20	6	470
	Value of Structures	$1,307,800	$50,418,010	$2,015,050	$1,417,630	$55,158,490
	Land Value	$1,342,840	$11,328,320	$1,021,590	$211,990	$13,904,740
Riverdale	No. of Parcels	6	169	13	8	196
	Value of Structures	$147,680	$25,179,110	$7,111,490	$2,553,820	$34,992,100
	Land Value	$218,610	$6,257,960	$2,920,100	$779,030	$10,175,700
Walcott	No. of Parcels	44	499	74	5	622
	Value of Structures	$769,520	$62,729,270	$34,549,020	$3,611,120	$101,658,930
	Land Value	$2,798,610	$10,607,630	$13,135,550	$1,652,320	$28,194,110
Scott County	No. of Parcels	6238	4562	166	15	10981
	Value of Structures	$165,439,681	$768,586,750	$50,430,660	$60,277,040	$1,044,734,131
	Land Value	$418,393,770	$238,710,960	$19,471,200	$11,465,310	$688,041,240

Hazard Profiles

Dam Failure

A dam is a barrier constructed across a watercourse in order to store, control, or divert water. Dams are usually constructed of earth, rock, concrete, or mine tailings. The water impounded behind a dam is referred to as the reservoir and is measured in acre-feet, with one acre-foot being the volume of water that covers one acre of land to a depth of one foot. Due to topography, even a small dam may have a reservoir containing many acre-feet of water. A dam failure is the collapse, breach, or other failure of a dam that causes downstream flooding. Another type of failure occurs when erosion through the dam foundation occurs. Both overtopping or erosion dam failure result in a high velocity or debris-heavy water that rushes downstream, causing damage within its path. In addition to natural events causing dam failure, improper design, improper maintenance, negligent operation, or failure of upstream dams may also lead to dam failures.

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 high hazard area is where dam failure may create a serious threat of loss of human life.

Moderate (Significant) Hazard – A moderate (significant) hazard area is where failure may damage isolated homes or cabins, industrial or commercial buildings, moderately-traveled roads, or interrupt major utility services, but without substantial risk of loss of human life. 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 are an integral feature of a private development complex are also classified as moderate hazard dams.

Low Hazard – A low hazard area is where damages from a failure would be limited to loss of the dam, livestock, 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.

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 incident 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 effects 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 maintenance and inspection, dam failure probability can be reduced. It is important to consider that by 2020, 85% of the dams in the United States will be more than 50 years old (the design life of a dam). The State Hazard Mitigation Team (SHMT) analysis has evaluated the probability that a dam failure will occur in Iowa as between 1% and 10% in the next year or at least one chance in the next 100 years per the 2013 *Iowa Hazard Mitigation Plan*. Scott County has chosen to define the same probability of occurrence.

Magnitude/Severity. The extent of hazardous conditions due to dam failure is typically limited to those areas in and near 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 east central Scott County between the Cities of Eldridge and Princeton is Scott County's newest dam. Lost Grove is a 350-acre recreational lake and has been classified as a high hazard dam. There are three other 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. The largest concern would be a series of dam breaks on the Upper Mississippi River that would cause low water levels. This would make barge travel on the Mississippi River unlikely and would have a significant impact on the region's economy. Iowa American Water Company, the water supply company for Bettendorf, Davenport, LeClaire, Riverdale, Panorama Park, and parts of unincorporated Scott County has water intakes in the Mississippi River. If water levels are too low, there would be a lack of water supply to a significant population of Scott County.

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 3-1.) Vershaw Dam, which was originally classified as a high hazard dam, was reclassified to a low hazard dam in September 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 Iowa Department of Natural Resources (IADNR) has stated that it is one of their goals to have inundation areas and Emergency Action Plans 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.

In general terms, jurisdictions potentially affected by dam failure due to downstream proximity are: Scott County, Davenport, Bettendorf, Riverdale, and LeClaire. 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 IADNR inventory, there are 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.

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. Delivery of services may be affected due to flash flooding. If the water being held by the dam was used for source water, secondary source water will be needed until the water level can be restored. Much scouring would take place, and erosion would be extensive. Economic effects would vary widely depending on the damage done by released waters.

Warning Time. A dam failure can be immediate and catastrophic leaving little or no time to warn those downstream of the imminent hazard. With maintenance and monitoring, weak areas and possible failure points can be identified allowing time for evacuation and securing the dam. Most dams are only inspected periodically, thus allowing problems to go undetected until a failure occurs.

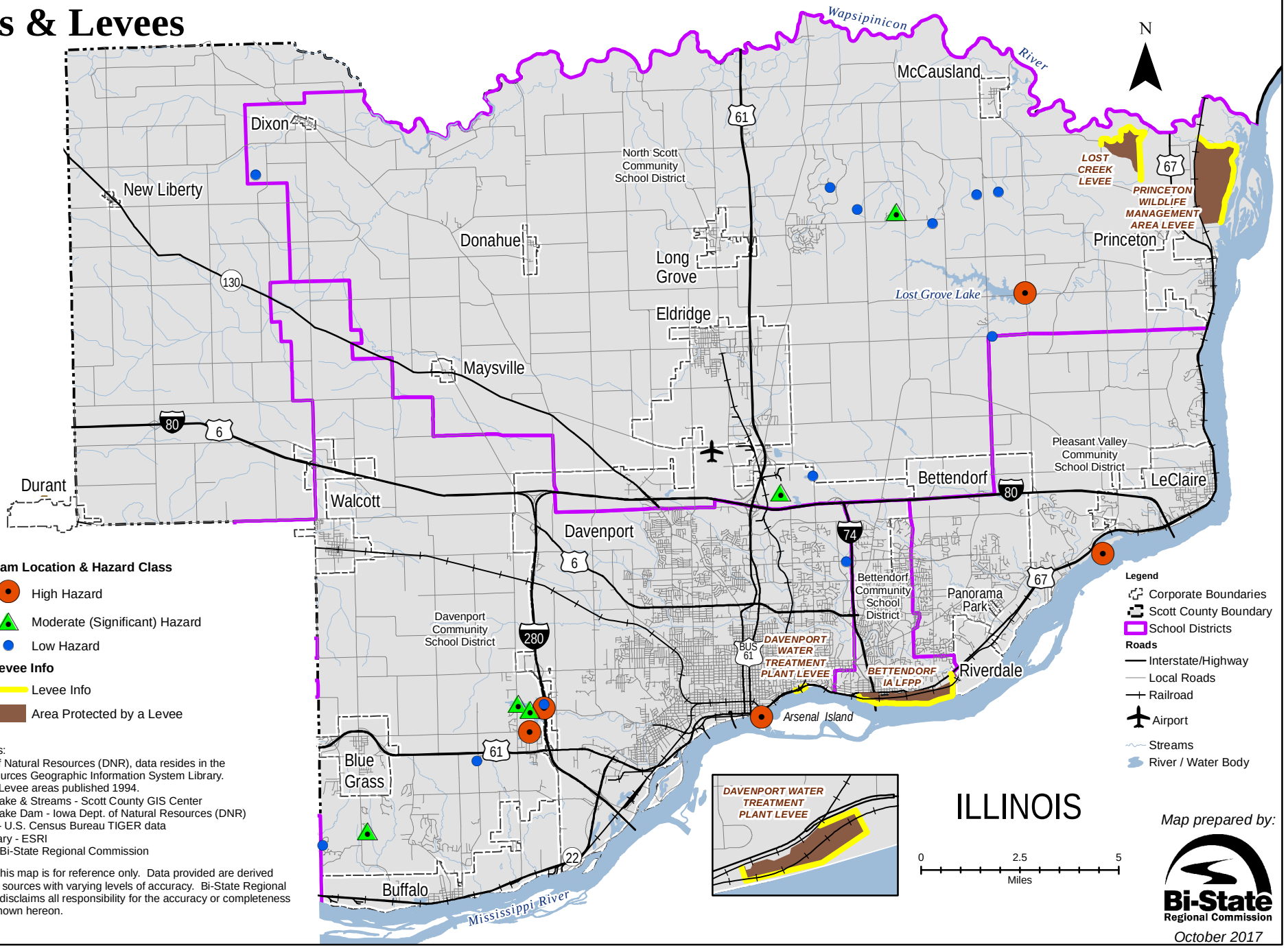
Duration. Response to the effect of a dam failure is extensive and requires wide-ranging recovery efforts for reconstruction of the original flood control structures.

Vulnerability. Dam failure is typically an additional or secondary impact of another disaster such as flooding or earthquake. The effects to the planning area and its municipalities from a dam failure would be similar in some cases to those associated with flood events (see the flood hazard vulnerability analysis and discussion). Based on the hazard class definitions, failure of any of the high hazard dams could result in a serious threat of loss of human life and serious damage to residential, industrial, or commercial areas; important public utilities; public buildings; or major transportation facilities. Catastrophic failure of high hazard dams has the potential to result in greater destruction due to the potential speed of onset and greater depth, extent, and velocity of flooding. Another difference is that dam failures could flood areas outside of mapped flood hazards.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2007, 2010 and 2013*
Scott County, Iowa	*Scott County Iowa Multi-Jurisdictional Hazard Mitigation Plan 2012*
City of Davenport	*Pre-Disaster Mitigation Plan, February 2007*
National Dam Safety Program	https://www.fema.gov/national-dam-safety-program
Iowa Department of Natural Resources	http://www.iowadnr.gov/Environmental-Protection/Land-Quality/Dam-Safety
National Inventory of Dams	*http://nid.usace.army.mil/cm_apex/f?p=838:1:0::NO*

Map 3-1

Dams & Levees



Data Sources:
Iowa Dept. of Natural Resources (DNR), data resides in the Natural Resources Geographic Information System Library.
Dams 2016, Levee areas published 1994.
Lost Grove Lake & Streams - Scott County GIS Center
Lost Grove Lake Dam - Iowa Dept. of Natural Resources (DNR)
School Dist. - U.S. Census Bureau TIGER data
State Boundary - ESRI
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

October 2017

Drought

Drought is a period of prolonged lack of precipitation for weeks at a time producing severe dry conditions. There are four types of drought conditions that are relevant to Iowa:

- Meteorological drought – Refers to precipitation deficiency
- Hydrological drought – Refers to declining surface water and groundwater supplies
- Agricultural drought – Refers to soil moisture deficiencies
- Socioeconomic drought – Refers to when physical water shortages begin to affect people

Iowa experiences mainly agricultural and meteorological drought conditions as a result of low soil moisture or decline in recorded precipitation.

Droughts can be spotty or widespread and last from weeks to a period of years. A prolonged drought can have a serious economic effect 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. 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

The National Drought Mitigation Center has a Drought Severity Classification system that takes into account the Palmer Drought Index, soil moisture, streamflow, and the Standardized Precipitation Index. It also looks at droughts as both short-term and long-term. Below is a table explaining the classification system and a graph showing droughts from 2000 until June 2016.

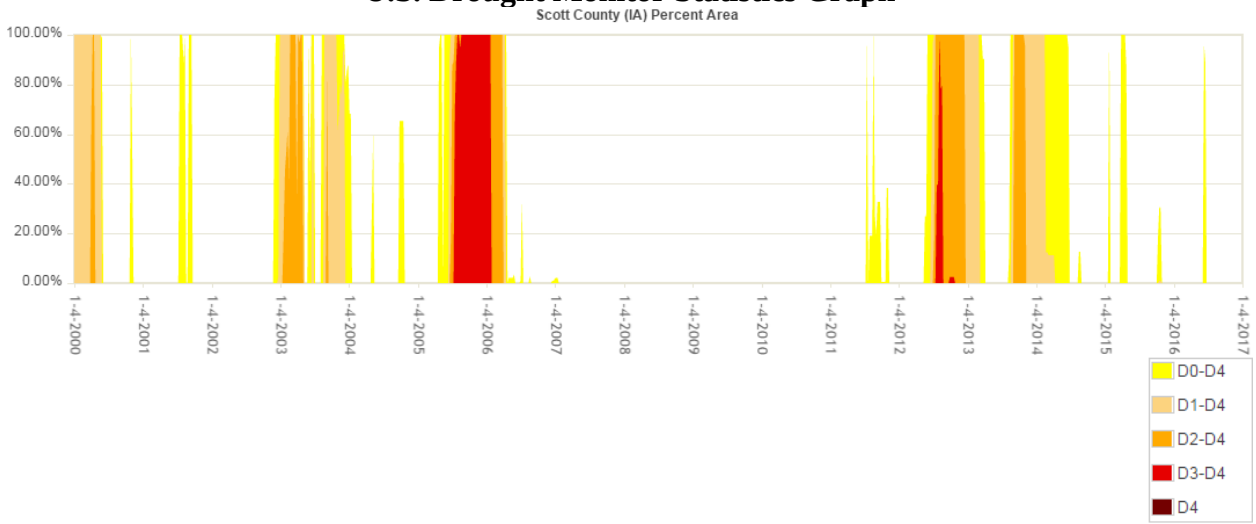
Figure 3-1

Drought Severity Classification

		Ranges					
Category	Description	Possible Impacts	Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	Objective Short and Long-term Drought Indicator Blends (Percentiles)
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21-30	21-30	-0.5 to -0.7	21-30
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11-20	11-20	-0.8 to -1.2	11-20
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	-1.3 to -1.5	6-10
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	-1.6 to -1.9	3-5
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less	0-2	0-2	-2.0 or less	0-2

Short-term drought indicator blends focus on 1-3 month precipitation. Long-term blends focus on 6-60 months. Additional indices used, mainly during the growing season, include the USDA/NASS Topsoil Moisture, Keetch-Byram Drought Index (KBDI), and NOAA/NESDIS satellite Vegetation Health Indices. Indices used primarily during the snow season and in the West include snow water content, river basin precipitation, and the Surface Water Supply Index (SWSI). Other indicators include groundwater levels, reservoir storage, and pasture/range conditions.

U.S. Drought Monitor Statistics Graph



According to the National Climatic Data Center, there have been five drought periods reported for Scott County between 01/01/1995 and 10/14/2016. Noticeable droughts include:

- **August 1995:** A statewide drought, the dry weather conditions combined with well above normal temperatures produced the 4th 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.
- **August 2003:** 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 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 10th consecutive month with below normal precipitation with the eastern ⅔ of Iowa in the Extreme Drought category. By March 2006, the drought begun to shrink in size and scope, and precipitation was near normal by April 2006. Total precipitation for 2005 was 17.86 inches (normal is 38.04 inches).
- **July 2012 – November 2012**: The drought of 2012 was a result of above average temperatures and little to no precipitation. The average precipitation for June 1-August 16 was 5.68 inches, or -5.22 inches from the normal amount (normal is 10.90 inches at the Davenport Station). By August 2012, Scott County along with 42 other counties in Iowa had been declared a primary natural disaster area by USDA. (On August 7, 2012, Scott County was listed as in D3-Extreme Drought conditions by the National Drought Mitigation Center). According to the USDA, $12,921,164 of indemnity was paid for Federal Crop Insurance Claims for the crop year 2012.
- **August 2013 to June 2014**: After a wet start to the summer, atmospheric conditions developed in July through September that lead to less precipitation falling across the region. This lead to Severe Drought conditions that were not fully alleviated until the middle of June 2014. Claims for Federal Crop Insurance totaled $12,820,403 for the 2013 crop year.

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 years. The 2013 *Iowa Hazard Mitigation Plan* estimates that the statewide probability of future droughts in the order of magnitude between -3.0 to -3.9 on the Palmer Drought Severity Index is between 10% and 19% in any given year. Scott County has chosen to define the same probability of occurrence.

Magnitude/Severity. Those dependent on rain would be the most vulnerable to a drought. This means that agriculture, agribusiness, and consumers (if the drought lasted long enough or

affected a large area) would be affected. A drought limits the ability to produce goods and provide services. Because citizens draw their drinking water from surface water and groundwater sources, a prolonged severe drought may affect all citizens if there were to be a dramatic drop in the stream flow coupled with the drop in the water table. Fire suppression can also become a problem due to the dryness of the vegetation and possible lack of water. Claims for Federal Crop Insurance totaled $12,820,403 for the 2013 crop year.

Location. The entire planning area is equally at risk for drought.

Warning Time. Drought warning is based on a complex interaction of many different variables, water uses, and consumer needs. Drought warning is directly related to the ability to predict the occurrence of 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 that 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.

Duration. From the historical records for the State of Iowa, most droughts occur for at least one month at a time. It is dependent on the climatic situation at the time of the drought.

Vulnerability. Those dependent on rain would be the most vulnerable to a drought. This means that agriculture, agribusiness, and consumers (if the drought lasted long enough or affected a large area) would be affected. A drought limits the ability to produce goods and provide services. Because citizens draw their drinking water from surface water and ground water sources, a prolonged severe drought may affect all citizens if there was a dramatic drop in the stream flow coupled with the drop in the water table. Fire suppression can also become a problem due to the dryness of the vegetation and possible lack of water.

Drought in the U.S. seldom results directly in the loss of life, and more directly affects agricultural crops, livestock, natural vegetation, wildlife, and stream flows (fish and aquatic vegetation). Effects are costly economically, environmentally, and socially. Many areas could be affected by drought within Scott County, particularly local farms. Additionally, other agriculturally-based communities affected by drought could affect the economic welfare of Scott County. For possible damages to agricultural realty, please refer to Table 3-5, which shows assessed values for agricultural property in Scott County.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
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 IL Local Climate	http://www.crh.noaa.gov/dvn/climate/
FEMA	https://www.ready.gov/drought
U.S. Drought Monitor	http://droughtmonitor.unl.edu/
USDA Risk Management Agency	http://www.rma.usda.gov/data/indemnity/

Earthquake

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 that may impose a direct threat to life and property. 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.

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.

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.
X	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)

Historical Occurrence. According to the State of Iowa Geological Survey, there have been 13 earthquakes in the state between 1867 and 2016, 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.

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 United States Geological Survey (USGS), the chance of a magnitude 6 or higher earthquake in the next 50 years is 25-40% based on the history of past earthquakes in the New Madrid fault zone. The 2013 *Iowa Hazard Mitigation Plan* analysis estimated that the probability of future earthquakes in Iowa at less than 10%. Scott County has chosen to define the same probability of occurrence.

Magnitude/Severity. 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 2013 *Iowa Hazard Mitigation Plan* estimates that there would be less than $2,500,000 in damages statewide. Scott County could experience vibrations similar to the passing of a heavy truck; rattling of dishes; creaking of walls and swinging of suspended objects. Fatalities would be very rare, with injuries limited to falls and injury from unsecured objects.

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 effect. Map 3-2 indicates the seismic probability for the state of Iowa is low relative to other areas of the country. The entire planning area is equally at risk for earthquakes.

Warning Time. Earthquake prediction is an inexact science, and even in well monitored areas with scientific instruments, scientists very rarely predict earthquakes.

Duration. Due to the limited effects to Iowa, response to the occurrence of an earthquake would likely be in support of nearby states utilizing mutual aid agreements; in-state response would likely be very limited.

Vulnerability. Most structures in Iowa are not built to earthquake standards, but because of the relatively low magnitude of the possible quake, property damage would likely be minor foundational damage. The most vulnerable structures are those built on poorly consolidated substrate, particularly floodplain materials. Most of Iowa is located in Seismic Zone 0, the lowest risk zone in the United States. This does not mean that the county is not vulnerable to earthquake effects.

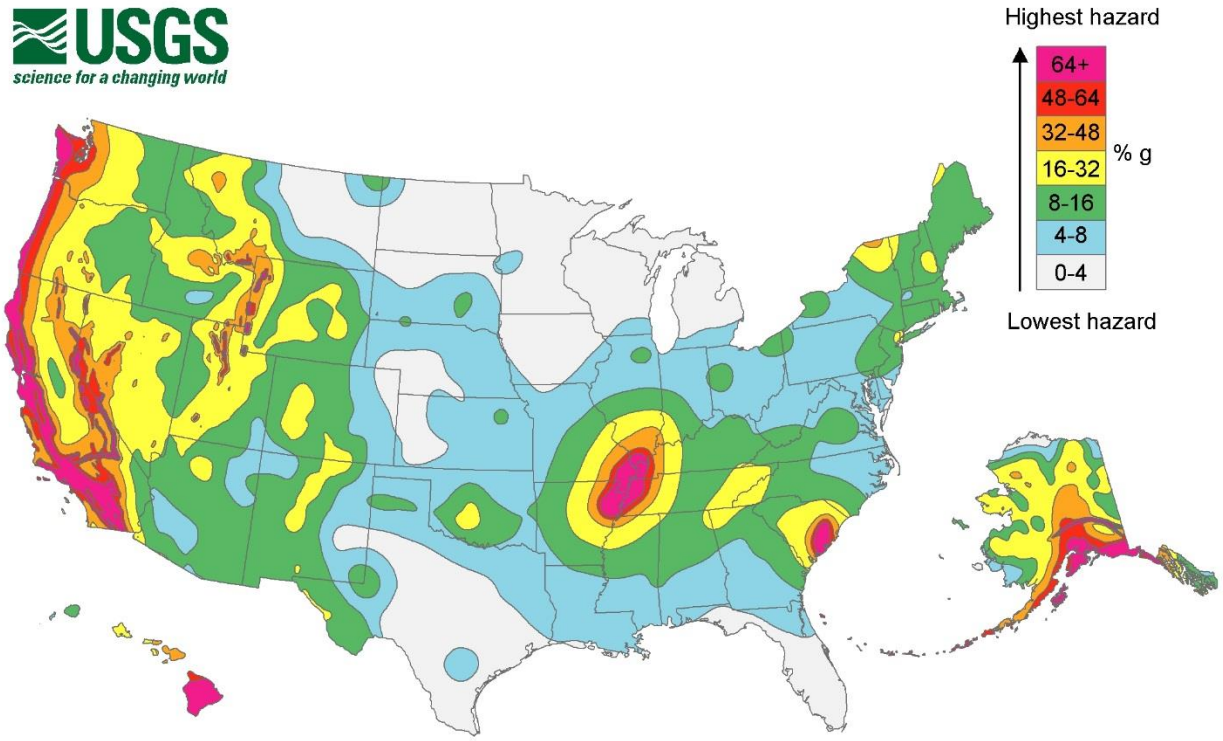
Seismologists attempt to forecast earthquake size and frequency based on data from previous events in the New Madrid Fault Zone, and estimate a 90% chance of a Richter scale 6.0 magnitude earthquake in the New Madrid Fault Zone by the year 2040. A magnitude 6.5 earthquake on the New Madrid Fault would create a Modified Mercalli intensity magnitude four (4) effect in most of Iowa resulting in minimal damages. In the unlikely event of a major

earthquake in Scott County, it is safe to assume that the impact would be devastating considering a majority of the structures in the county are older structures not built to codes that encourage resistance to earthquakes.

As seen in the community profile, roughly 36% of all homes in Scott County were built before 1959. The age of the housing stock in Scott County represents a significant risk for damage from this hazard. Additionally, new construction does not have to comply with any additional codes to ensure earthquake resistance. Overall, the community would suffer severe structural failure, injuries, and death if a major earthquake occurred. A majority of people and buildings could be injured or experience property damage from this hazard. The amount of possible property damage can be seen in Table 3-5 that shows the value of all assessed property in Scott County. All structures would have equal vulnerability to this hazard since the hazard is not confined to a specific geographic area within the county.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
Iowa Geological Survey Bureau	http://www.igsb.uiowa.edu
City of Davenport	*Davenport Pre Disaster Mitigation Plan, 2007*
U.S. Geological Survey	http://earthquake.usgs.gov/earthquakes/byregion/iowa.php

Map 3-2
U.S. Geological Survey 2008 Hazard Map



Expansive Soils

Expansive soils are soils and soft rock that tend to swell or shrink excessively due to changes in moisture content. Expansive soils contain minerals such as clays that are capable of absorbing water. When they absorb water, they increase in volume, and the more water they absorb, the more their volume increases. Expansions of ten percent or more are not uncommon. This change in volume can exert enough force on a building or other structure to cause damage.

Ratings are dependent on the clay content of the soils. Soils that have a linear ability to be extended greater than 3% are of concern for dwellings with basements. In combination with areas of slope, floodplain, and hydric soils, future development should consider the suitability and limitations of soils, especially for dwellings with basements.

Expansive soils will also shrink when they dry out. This shrinkage can remove support from buildings or other structures and result in damaging subsidence. Fissures in the soil can also develop. These fissures can facilitate the deep penetration of water when moist conditions or runoff occurs. This produces a cycle of shrinkage and swelling that places repetitive stress on structures.

The American Society of Civil Engineers estimates that half of the homes in the United States are built on expansive soils, and half of these will have some damage. The group claims that these soils are responsible for more home damage every year than floods, tornados, and hurricanes combined.

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.

Historical records of damage due to expansive soils are not kept on a county-wide scale due to 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 3-3, which shows the shrink-swell potential for soils within Scott County. In the 2013 *Iowa Hazard Mitigation Plan*, the State Hazard Mitigation Team evaluated the probability of future expansive soils events in Iowa at a 10-19% chance in any one year. Scott County has chosen to define the same probability of occurrence with some areas being more prone than others.

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.

Magnitude/Severity. There are few direct human effects. Effects commonly involve swelling clays beneath areas covered by buildings and slabs of concrete and asphalt, such as those used in construction of highways, walkways, and airport runways. 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 expansion of swelling than are multi-story buildings, which usually are heavy enough to counter swelling pressures. The most obvious manifestations of damage to buildings are sticking doors, uneven floors, and cracked foundations, floors, walls, ceilings, and windows. Damage to the upper floors of the building can occur when motion in the structure is significant. Utilities could be affected because of constant pushing and pulling resulting in cracks, breaks, and severing of underground infrastructure. Since this a naturally-occurring phenomenon, environmental effects would be limited to spills and leaks of containment facilities. 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 effect. Building code requirements may impose undue burden on construction to ensure proper performance of buildings and utilities in areas with expansive soils.

Warning Time. This is consistent with other geologic hazards that occur slowly over time.

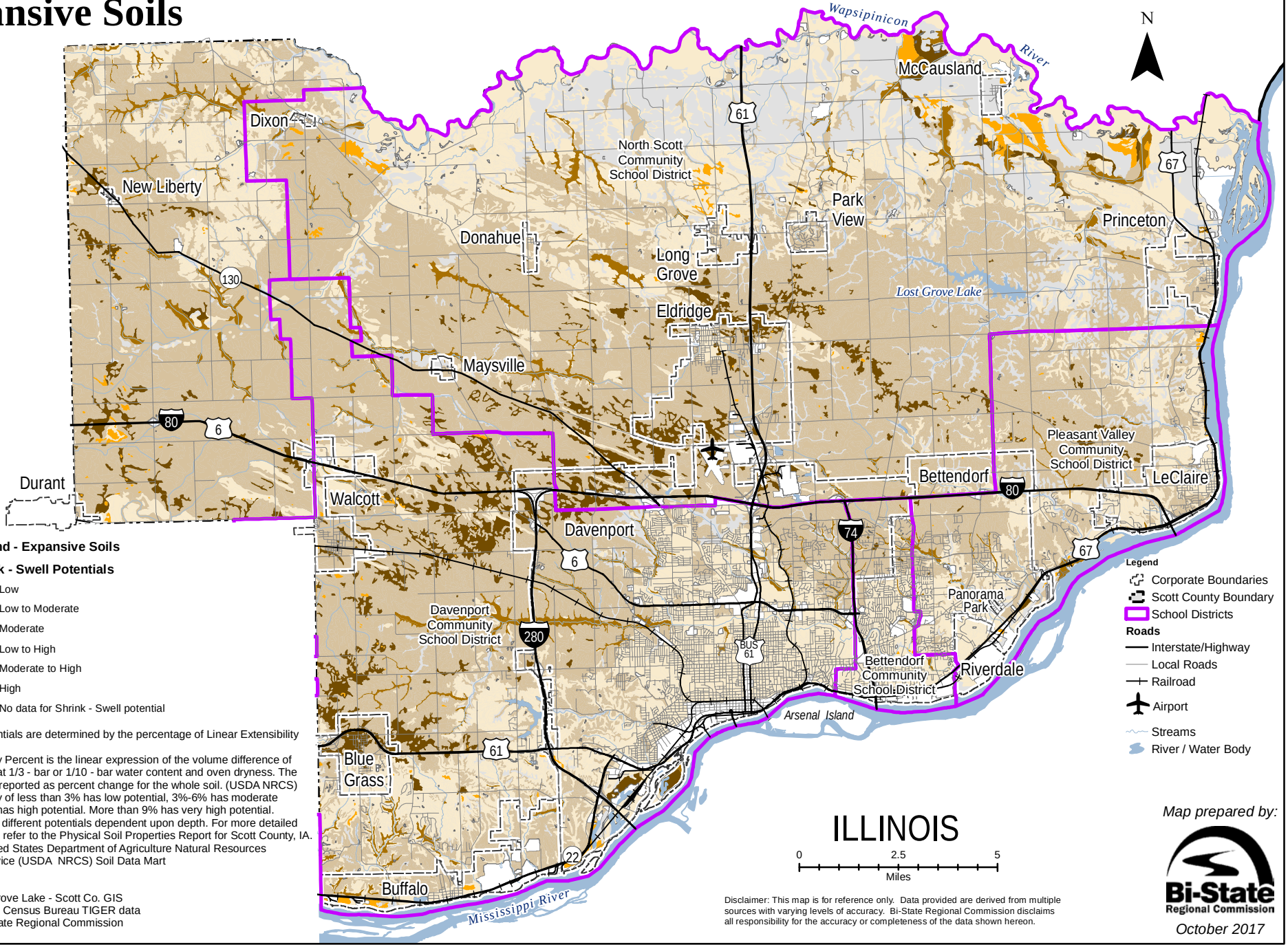
Duration. The response tied to damage that occurs due to expansive soils depends largely on the extent of the damage and when the damage is first noticed. Damage can be mitigated on new construction with proper building techniques for the soil type and moisture level. Damage can be mitigated on existing buildings by incorporating some of the same types of techniques used in new construction. This may take longer and cost more than new construction.

Vulnerability. While the entire planning area is vulnerable to some structural damage as a result of shrinking and expanding soils, there is no data available to determine damage estimates for this hazard. In most cases, individual property owners, local governments, and businesses pay for repairs to damages caused by this hazard. Underground utility lines such as water and sewer pipes may be at risk to damages associated with expansive soils. However, there is no data to support damages and costs associated with this hazard at this time.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
USDA NRCS Soil Data Mart	
NRCS	***http://websoilsurvey.nrcs.usda.gov/app***
NRCS	*Using Soil Survey to Identify Areas With Risks and Hazards to Human Life and Property Expanding - Soils and Shrink-Swell Potential- 2004* By Phil Camp, State Soil Scientist, Arizona, USDA, NRCS
Geology.com	Expansive Soil and Expansive Clay - *The hidden force behind basement and foundation problems*

Map 3-3

Expansive Soils



Shrink-Swell Potentials are determined by the percentage of Linear Extensibility Percent.
Linear Extensibility Percent is the linear expression of the volume difference of natural soil fabric at 1/3 - bar or 1/10 - bar water content and oven dryness. The volume change is reported as percent change for the whole soil. (USDA NRCS)
Linear Extensibility of less than 3% has low potential, 3%-6% has moderate potential, 6%-9% has high potential. More than 9% has very high potential.
Various soils have different potentials dependent upon depth. For more detailed information please refer to the Physical Soil Properties Report for Scott County, IA.
Data Source: United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Soil Data Mart

Data Sources:
Streams & Lost Grove Lake - Scott Co. GIS
School Dist. - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

October 2017

Extreme Heat

An extreme heat event is characterized as a prolonged period of excessive heat and humidity. Conditions for extreme heat are defined by summertime weather that is substantially hotter and/or more humid than average for a location at that time of year. This includes temperatures (including heat index) in excess of 100°F or at least three successive days of 90°F or higher. 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. A heat advisory is issued when temperatures are greater than 100°F for 1 to 2 days with nighttime temperatures greater than 75°F. An excessive heat warning is issued when a heat event is expected in the next 12 hours with heat indices at least 105°F for more than 3 hours per day for 2 consecutive days or heat indices greater than 115°F for any period of time. 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.

Incidents of extreme heat are likely to cover a large area. 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 and National Weather Service gives an indication of the magnitude and variety of such events. There have been six notable excessive heat events in Scott County since 1950; however, 1936 is still the all-time warmest July on record with 11 days in a row with temperatures over 100°F and an average monthly temperature of 85.0°F (the monthly average for July is 75.4°F, at the Quad City International Airport station).

> **July 1995:** This event covered all of Iowa from July 12 through the evening of July 14, 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°F and 108°F, 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 1997:** Excessive heat indices of 105 to 110 were reached in the eastern half of the state during this event, which lasted through July 27. The highest temperatures were recorded on July 26 when record-setting high minimum temperatures were also experienced. The Quad Cities Bix 7 Run was also on July 26, and the heat caused 12 injuries and one fatality. Minimum property damage was experienced in the form of livestock.
>
> **July 1999:** This event lasted July 19-31. 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°F to 125°F. Although no

fatalities were reported in Iowa, 19 people in Illinois and 27 people in Missouri died from heat-related factors over this time period.

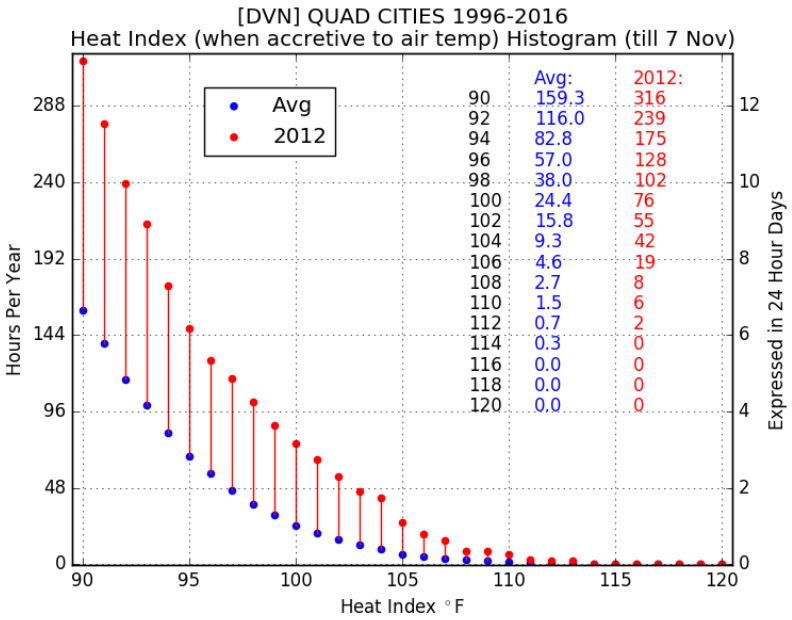
August 2000: No injuries, fatalities, or property damage were reported with this event that spread over middle and eastern Iowa. Temperatures topped out in the lower to middle 90s. These hot temperatures combined with high humidity resulted in dangerous heat indices of 105°F to 115°F during the afternoon.

July 2012: The average temperature was 80.7°F, which makes this the sixth warmest July on record. There were 22 days with temperatures at or above 90° F, with five of those days at or above 100°F. The hottest day reported was on July 7 with a temperature of 104°F and heat indexes of 105-115°F. Genesis hospitals in the Quad Cities Area treated 14 people for heat-related illnesses on the 4th of July.

July 2013: According to the National Weather Service, five consecutive days of temperatures above 90°F were recorded at the Davenport Municipal Airport, despite June-August of 2013 being ranked "Below Normal" for average regional temperature by the National Climatic Data Center.

The histogram below shows the number of hours July 2012 temperatures were above a particular threshold, relative to the average temperature.

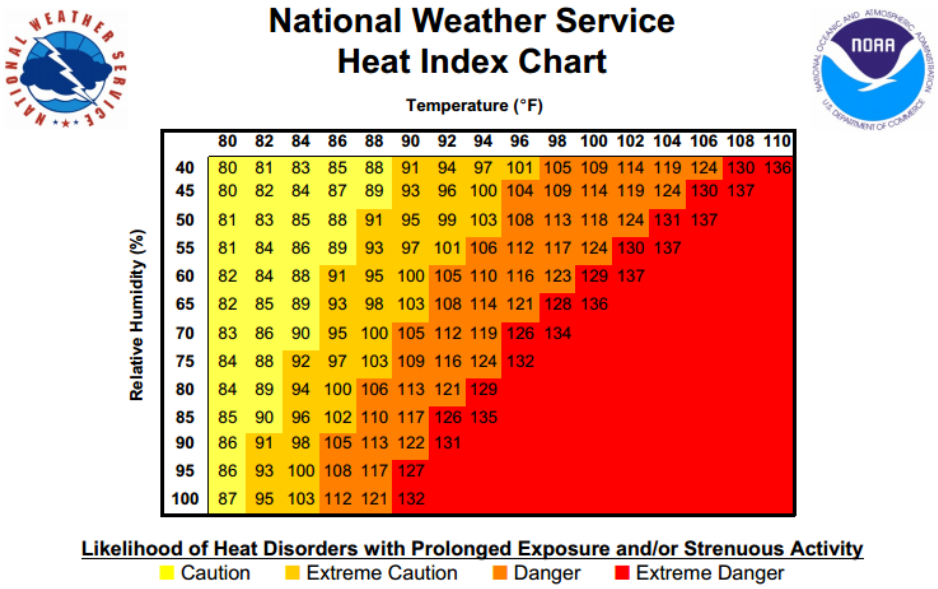
Figure 3-2



Probability. Based on historical information, Iowa will likely experience about 26 days a year with temperatures above 90°F. 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. The 2013 *Iowa Hazard Mitigation Plan* estimated that the probability of an extreme heat occurrence is between 10% and 19% in any given year. Scott County has chosen to define the same probability of occurrence.

Magnitude/Severity. 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 2013 *Iowa Hazard Mitigation Plan* states that Scott County experiences approximately $3,000 in damages annually from extreme heat. The National Climatic Data Center Storm Event Database does not have any reported property or crop damage reports for extreme heat. Below is the National Weather Service Heat Index Chart that rates the likelihood of heat disorders at various temperatures.

Figure 3-3



Location. The entire planning area is equally at risk for extreme heat.

Warning Time. As with other weather phenomena, periods of extreme heat are predictable within a few degrees within 3 days or so. Variations in local conditions can affect the actual temperature within a matter of hours. The National Weather Service will initiate alert procedures when the heat index is expected to exceed 105°F for at least two consecutive days.

Duration. The State Hazard Mitigation Team has estimated that extreme heat events are likely to exceed one week in duration based on the review of past extreme heat events in the state.

Vulnerability. In Scott County, the majority of the community is at risk to extreme heat, especially elderly persons, small children, chronic invalids, those on certain medications or drugs (especially tranquilizers and anticholinergics), and persons with weight and alcohol problems. Healthy individuals working outdoors in the sun and heat are vulnerable as well. Low-income individuals and families are also susceptible due to poor access to air-conditioned rooms and as mentioned in the community profile, this would likely include the 12.2% of the population of Scott County that lives below the poverty level.

There are a some designated locations that have backup generators to provide shelter from extreme heat in the event of energy disruption, but additional generators are needed at critical

and vulnerable facilities to ensure heat protections for vulnerable populations. Special attention should be given to nursing homes, senior housing facilities, K-12 schools, preschool facilities, and hospitals in the county during extreme heat conditions because of the number of vulnerable residents being served in those institutions. In addition, more rural areas of the county are at an elevated risk for vulnerable populations such as low-income, elderly, and children, who may or may not have adequate transportation to the shelter locations.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2010, 2013*
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms https://www.ncdc.noaa.gov/temp-and-precip/us-maps/3/201308#us-maps-select
National Weather Service	https://www.weather.gov/
Iowa Environmental Mesonet	http://mesonet.agron.iastate.edu/plotting/auto/?_wait=no&q=93&network=IA_ASOS&zstation=DVN&year=2012&var=heatindex&ytd=yes&dpi=100&_fmt=png

Flash Flood

A flash flood is an event occurring with little to no warning where water levels rise at an extremely fast rate. 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. 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. Streets can also become swift-moving rivers, and basements can become deathtraps because flash floods can fill them with water in a matter of minutes.

Floods are the most common and widespread of all natural disasters except fire. According to the National Climatic Data Center, 47 flash flood events have been reported between January 1997 and July 6, 2015, which was the most recent event report available. Of the 47 flash flood events, 14 have occurred since 2010. Below is a sample of the flash flood events.

- **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 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 Scott Streets, and major street flooding on River Drive and State Street. The flash flooding contributed to a five-car accident on the Interstate 74 bridge approach to the Mississippi River in Bettendorf. No injuries were reported. Spencer Creek Bridge at 249th Avenue, a private road and bridge, was under water making the road impassable.

- **June 3-4, 2002:** 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 53rd 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 George W. 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 Cities Metro Area produced rainfall rates exceeding 1 inch per 30 minutes. The 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.
- **June 2008:** On June 8, heavy rains resulted in flash flooding of Crow Creek about three miles north of Bettendorf. Heavy rains on June 12-13 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.
- **June 15, 2010:** Heavy rains resulted in flash flooding of the intersections of Kimberly and Division and Kimberly and Marquette in Davenport during the afternoon. In addition, several streets and yards in Park View, IA were flooded. The flood waters in both areas were 8 to 12 inches deep.

Probability. According to the 2013 *Iowa Hazard Mitigation Plan*, the State Hazard Mitigation Team concluded that it is highly likely that a flash flood event will affect Iowa in any given year. Using National Climatic Data Center (NCDC) data for Scott County, an average of 2.6 flash flood events occur in any given year.

Magnitude/Severity. Magnitude of flash flooding varies by watershed based on the effects of amounts of rain over time. 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 Cities 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. Rescuers are at a significant risk when attempting to work in swift moving floodwaters associated with flash flooding. 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. 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.

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. National Flood Insurance Plan (NFIP) Repetitive loss information is discussed in the River Flooding hazard profile. The 2013 *Iowa Hazard Mitigation Plan* states that Scott County's annual loss estimation for flash flooding is approximately $91,000.

Location. A number of waterways were identified by participating jurisdictions as being particularly susceptible to flash flooding. These include the following: Duck Creek, Crow Creek and its tributaries in Bettendorf; Duck Creek and its tributaries including Silver, Goose, Pheasant Robin and Candlelight Creeks; and Crow and Hickory Creeks in Eldridge.

Warning Time. 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 forecasts the height of flood crests, the data, and the time the flow is expected to occur at a particular location.

Duration. The response to the effects of flash flooding in Iowa is short in duration due to the nature of the hazard.

Vulnerability. Areas in a flood plain, downstream from a dam or levee, or in low-lying areas can certainly be affected. People and property located in areas with narrow stream channels, saturated soil, or land with large amounts of impermeable surfaces are likely to be affected in the event of a significant rainfall. Unlike areas affected by a river/stream flood, flash floods can affect areas a good distance from the stream itself. Flash flood prone areas are not particularly those areas adjacent to rivers and streams. Streets can become swift moving rivers, and basements can become deathtraps because flash floods can fill them with water in a manner of minutes.

People and property in areas with insufficient storm sewers and other drainage infrastructure can also be put at risk because the drains cannot rid the area of the runoff quick enough. 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 knock a person off of their feet, and only two feet of water can float a full-sized automobile. Recreational vehicles and mobile homes located in low-lying areas can be swept away by the water also.

As land is converted from fields or woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization increases runoff two (2) to six (6) times over what would occur on natural terrain. As more development occurs in the watershed, the amount of runoff produced also increases. If measures are not taken to reduce the amount of runoff (or slow its movement), flash floods will continue to occur and may become more frequent. In certain areas, aging storm sewer systems were not designed to carry the capacity currently needed to handle the increased storm runoff. This combined with rainfall trends (that seem to be moving upwards) and rainfall extremes (that also seem to be patterning higher) all demonstrate the high likelihood, yet unpredictable nature, of flash flooding in the state.

The waterways identified in the location section of this profile are not meant to be an exhaustive list of all potentially affected areas. Additionally, flash flooding can affect a structure without damaging the entire building. Water in basements and lower levels is the most common cause of property damage. Of course, another major concern regarding flash flooding is the risk to people and animals, as fast moving water can quickly become overwhelming. Further data is needed to better assess vulnerability. Plans and ordinances by local communities are encouraged to minimize the impact of heavy rain events and the cost associated with cleanup.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
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
Scott County	*Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*

Grass and Wildland Fires

A grass or wild-land fire is an uncontrolled fire that threatens life and property in either a rural or a wooded area. Grass and wild-land fires can occur when conditions are favorable, such as during periods of drought when natural vegetation would be drier and subject to combustibility.

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 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 KBDI scale and description of moisture conditions is as follows:

KBDI = 0-200: Typical of spring dormant season following winter precipitation. Soil moisture and large class fuel moistures are high and do not contribute to fire intensity.

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.

The Keetch-Byram Drought Index map does not show a reporting weather station that includes Scott County. However, reporting weather stations in surrounding areas of Minnesota, Wisconsin, Illinois, and Missouri all show a KBDI of less than 200, or minimal risk of wildfire hazard.

According to the National Interagency Fire center, there have been 3,330 wildfires spanning 73,962 acres from 2002 to the end of 2015 in Iowa. This number is likely much greater when considering grass fires.

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.

Magnitude and Severity. 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 wild-land 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 wild-land 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.

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. Significant events in Scott County include:

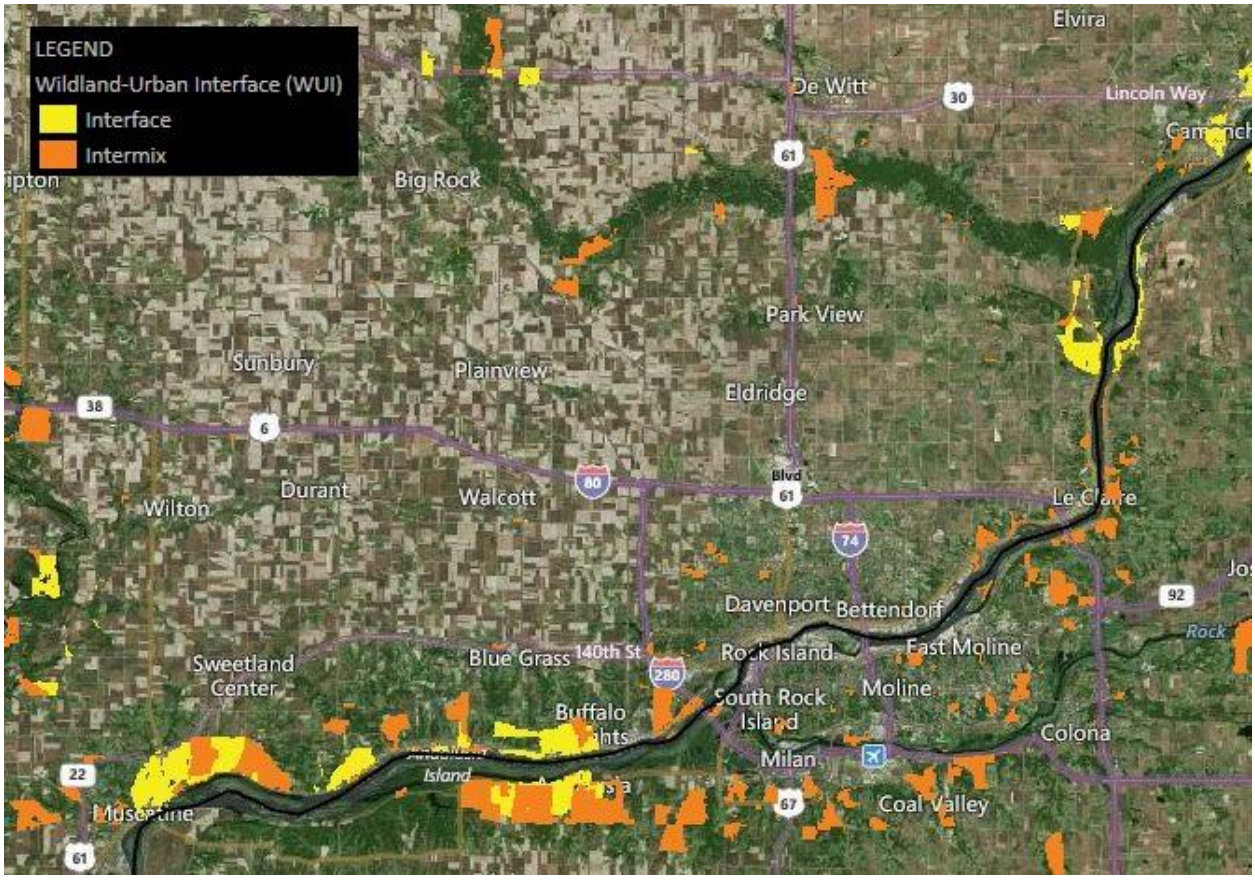
June 2005: Grass fire along Interstate 80 in Northern Davenport.

March 2009: Grass fires occurred throughout Scott County. One of the largest fires was caused by burning leaves that spread to a nearby field and burned approximately 100 acres.

September 2010: Large grass fire in west Davenport.

October 2015: During the period of October 12-20, a combination of very low humidity, strong winds, dry harvested and unharvested fields, and sunshine brought dangerous fire weather conditions. These conditions allowed many fires to spread to hundreds of acres of farmland before being contained.

Location. As shown on Map 3-10, Scott County has a significant amount of farm and grass lands that can become susceptible to fire under the right conditions. Every jurisdiction has the potential to be affected, but the largest communities, Davenport and Bettendorf, have more cropland by area adjacent. The following figure indicates the extent of wild-land urban interface in Scott County as of 2010. Most jurisdictions have at least some wildland urban interface or intermix.



Source: http://silvis.forest.wisc.edu/data/wui_change

Warning Time. 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. However, methods for forecasting the probability of occurrence of conditions most suitable for wildfires to occur has increased with the use of the national wild-land significant fire potential outlook issued by the National Interagency Fire Center and the National Oceanic and Atmospheric Administration (NOAA) Storm Prediction Center.

Duration. The majority of Iowa wildfires occur in short duration in areas of brush and forest lands.

Vulnerability. In Scott County, there is moderate risk to the structures due to grass or wildland fires. Locations that are at the most risk are housing developments outside of corporate limits. These houses are often in close proximity to undeveloped land and tend to be located in areas that have a longer fire response time. However, it is likely that any event from this hazard would be small and limited in scope and would not cause significant damage to life or property.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2010*
U.S. Forest Service – WFAS (Wildland Fire Assessment System)	*http://www.wfas.net/index.php/keetch-byram-index-moisture--drought-49*
Keetch-Byram Drought Index Map (KBDI)	*http://www.fs.fed.us/land/wfas/kbdi.gif*

Levee Failure

The Federal Emergency Management Agency (FEMA) defines a levee as "a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water in order to reduce the risk from temporary flooding." Levees reduce the risk of flooding, but do not eliminate the risk. Levees and floodwalls are constructed from the earth, compacted soil, or artificial materials, such as concrete or steel. To protect against erosion and scouring, earthen levees can be covered with grass and gravel or hard surfaces like stone, asphalt, or concrete. A levee system comprises one or more levee segments and other features that collectively provide flood risk reduction to a defined area. The levee system is inclusive of all features that are integral to the performance of excluding flood waters from the leveed area. These levee features may consist of embankment sections, floodwall sections, closure structures, pumping stations, and interior drainage works. Highway and railroad embankments or other non-levee features that are integral to the performance of excluding flood water from the leveed area will be considered to be part of a levee system for evaluation purposes. Embankments that function as levees also exist in water conveyance systems, navigation channels, recreation areas, and habitat restoration projects.

Levees typically function in keeping the leveed area free from inundation. Hence, in common language, a levee does not perform ("that fails") when people and property get wet. In technical terms, levees can "non perform" through four principal modes:

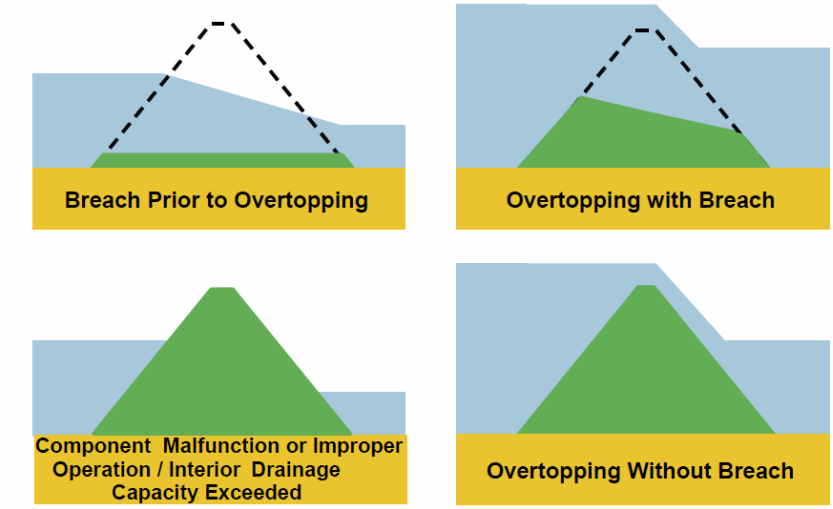
- Breach prior to overtopping
- Overtopping with breach
- Component malfunction or improper operation/interior drainage capacity exceeded
- Overtopping without breach

Levees are designed with an expected water height. Sometimes, this water height corresponds to a flood frequency such as a 10-year, 50-year, or 100-year return period. As longer records are kept, the flood frequencies are changed such that although the height of the levee remains constant, a levee that provided 100-year flood frequency may not always provide assurance that it will provide a leveed area free from inundation.

FEMA provides flood insurance to the nation. Rates for flood insurance are set by an examination of potential flooding using the best available information. Levees can be accredited by FEMA that allows for lower insurance rates if the levee is shown to have sufficient capability to resist nonperformance. Levees that have a minimum performance at the 100-year flood flow frequency can be accredited by FEMA and results in lower flood insurance rates.

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.

Figure 3-4
Levee Breach Diagram



The known levees within Scott County are shown on Map 3-1 within the Dam Failure profile. No new levees are known to have been constructed since the 2012 plan was adopted.

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. According to the 2013 *Iowa Hazard Mitigation Plan*, the State Hazard Mitigation Team found that a levee failure event associated with heavy flooding within the State of Iowa was between 10% and 20% in any given year. Scott County has chosen to define the same probability of occurrence.

Magnitude/Severity. 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. 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 3-1 for more information. Floodwaters breaching a levee are usually contained in the historic floodplain.

Warning Time. 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.

Duration. The levee failure would last until flood waters have receded and water has been pumped out of the levee inundation area. This would take several weeks or months depending on the severity of the levee failure and river flooding associated with the failure.

Vulnerability. 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 IADNR 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 four levees located within Scott County (see Map 3-1) during a 1% annual chance hazard flood event, the following tables indicate the land classification, land area, and land values of the property likely to be affected. Table 3-7 provides more detail.

Table 3-7
Land Value of Levee Inundation Areas

Bettendorf Levee Inundation Area							
Classification	**Acres**	**% TOTAL Within Inundation Area**	**Land Value**	**Building Value**	**Improved Value**	**Total Value**	**% Total Value of Property Within Inundation Area**
Unclassified	3.73	1.03%	$0	$0	$0	$0	0.00%
Commercial	249.66	69.01%	$15,476,540	$0	$97,604,520	$113,081,060	71.22%
Commercial/Multi-Family	0.38	0.10%	$378,630	$463,395	$917,895	$1,759,920	1.11%
Exempt	41.53	11.48%	$0	$0	$0	$24,116,890	15.19%
Industrial	56.84	15.71%	$2,502,920	$0	$10,381,590	$12,884,510	8.12%
Multi-Family	2.22	0.61%	$226,340	$1,892,980	$0	$2,119,320	1.33%
Residential	7.42	2.05%	$1,059,340	$3,748,720	$0	$4,808,060	3.03%
TOTAL	**361.78**	**100.00%**	**$19,643,770**	**$6,105,095**	**$108,904,005**	**$158,769,760**	**100.00%**

Lost Creek Levee Inundation Area							
Classification	**Acres**	**% TOTAL Within Inundation Area**	**Land Value**	**Building Value**	**Improved Value**	**Total Value**	**% Total Value of Property Within Inundation Area**
Agricultural	555.62	93.41%	$820,630	$0	$0	$823,770	71.09%
Agricultural or Agricultural/Dwelling	39.17	6.59%	$102,510	$214,460	$18,080	$335,050	28.91%
TOTAL	**594.79**	**100.00%**	**$923,140**	**$214,460**	**$18,080**	**$1,158,820**	**100.00%**

Princeton Levee Inundation Area							
Classification	**Acres**	**% TOTAL Within Inundation Area**	**Land Value**	**Building Value**	**Improved Value**	**Total Value**	**% Total Value of Property Within Inundation Area**
Unclassified	6754540.46	6.19%	$0	$0	$0	$0	0%
Agricultural or Agricultural/Dwelling	805193.62	0.74%	$42,860	$156,200	$6,390	$205,450	77%
Exempt	101623252.44	93.08%	$0	$0	$0	$59,650	23%
TOTAL	**109182986.53**	**100.00%**	**$42,860**	**$156,200**	**$6,390**	**$265,100**	**100%**

Davenport Water Treatment Plant							
Classification	**Acres**	**% TOTAL Within Inundation Area**	**Land Value**	**Building Value**	**Improved Value**	**Total Value**	**% Total Value of Property Within Inundation Area**
Unclassified	0.00	0.00%	$0	$0	$0	$0	0%
Agricultural or Agricultural/Dwelling	0.00	0.00%	$0	$0	$0	$0	0%
Exempt	11.90	100.00%	$0	$0	$0	$606,520	100%
TOTAL	**11.90**	**100.00%**	**$0**	**$0**	**$0**	**$606,520**	**100%**

It should be noted that while the assessed property value of the Davenport Water Treatment Plant represents the potential risk to that property, levee failure at the site could negatively affect water supply to the surrounding area. Not enough information is available to calculate the total financial impact of an inundation event for this site.

Sources	
The State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
Scott County, Iowa	*Scott County Multi-Jurisdictional Hazard Mitigation Plan 2012*
USACE National Levee Database	*http://nld.usace.army.mil/egis/f?p=471:1:*
FEMA Factsheet	*What is a Levee* November 11, 2012

River Flood

A river flood is the 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. 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. River flooding is a natural and expected phenomenon that occurs annually, usually restricted to specific streams, rivers, or watershed areas.

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

The National Climatic Data Center (NCDC) reports 70 flood events within Scott County between 8/16/1993 and 5/31/2016. The 2012 hazard mitigation plan lists 29 flood events, but grouped urban/small stream flooding under the "Flash Flood" profile. Urban/small stream events have been reclassified in the NCDC as flooding, and are now included in the River Flood profile. The 2012 hazard mitigation plan had data on flooding through October 31, 2009. Since then, an additional 18 events have been listed in the NCDC. Flood events listed in the NCDC document flooding on the major rivers in Scott County: the Wapsipinicon River and the Mississippi River and its tributaries. The top ten historic crests at National Weather Service gage points along the Wapsipinicon and Mississippi River are listed on the following page. 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. The Wapsipinicon experienced four of its top ten crests since the 2012 hazard mitigation plan was approved, including its flood of record. It is clear that the Wapsipinicon River is experiencing frequent and higher flooding than in the past. Six of the top ten historic crests on the Mississippi River at LeClaire and Rock Island occurred within the last 25 years. Both river gages on the Mississippi River in Scott County experienced one of its top ten crests after the 2012 hazard mitigation plan was approved.

Mississippi River at Lock & Dam 14:

1. 17.75 ft. on 4/28/1965
2. 16.93 ft. on 4/24/2001
3. 16.56 ft. on 7/08/1993
4. 14.97 ft. on 4/22/2011
5. 14.84 ft. on 6/16/2008
6. 14.61 ft. on 4/19/1997
7. 14.60 ft. on 4/26/1969
8. 14.45 ft. on 7/04/2014
9. 14.03 ft. on 5/09/1975
10. 14.01 ft. on 4/28/1952

Mississippi River at Lock & Dam 15:

1. 22.63 ft. on 7/09/1993
2. 22.48 ft. on 4/28/1965
3. 22.33 ft. on 4/25/2001
4. 22.00 ft. on 3/10/1868
5. 21.49 ft. on 6/16/2008
6. 20.94 ft. on 7/04/2014
7. 20.71 ft. on 4/22/2011
8. 19.66 ft. on 4/20/1997
9. 19.40 ft. on 6/27/1892
10. 19.30 ft. on 4/26/1969

Wapsipinicon River near DeWitt:

1. 14.32 ft. on 7/02/2014
2. 14.19 ft. on 6/17/1990
3. 14.13 ft. on 6/16/2008
4. 13.86 ft. on 10/01/2016
5. 13.79 ft. on 5/30/2004
6. 13.70 ft. on 4/19/2013
7. 13.66 ft. on 5/24/1999
8. 13.56 ft. on 7/30/2010
9. 13.46 ft. on 6/04/2013
10. 13.44 ft. on 6/30/2013

Probability. The 2013 *Iowa Hazard Mitigation Plan* stated that the probability of a flood event in Iowa in any given year is high. Areas delineated on Flood Insurance Rate Maps as Special Flood Hazard Areas (SFHA) indicate floodplains where there is a 1% probability of flooding in any given year. Given that the list of flood events for Scott County includes more than one event in some years, it might be estimated that at least minor flooding could occur nearly every year somewhere in the county.

Magnitude/Severity. The vulnerability from river flooding is quite delineated. The Federal Emergency Management Agency (FEMA) has developed Flood Insurance Studies and Special Flood Hazard Areas in Flood Insurance Rate Maps (FIRMs). The FIRMs show areas where there is a 1% chance of flooding occurring in any given year. Generally, these areas are along streams and rivers. Map 3-5 also shows special flood hazard areas within Scott County. More detailed FIRMs for each participating jurisdiction can be found in Appendix III-2. The State of Iowa is undergoing a floodplain remapping process, and a draft floodplain map has been made available to the cities and floodplain managers. The draft maps do not appear to have a significant impact on incorporated cities. The cities and counties will continue to monitor the remapping process.

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, as well as

provide financial protection against flood losses. Much work in the area of flood hazard mapping has allowed many communities to restrict development in hazardous areas.

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 McCausland
- City of Panorama Park
- City of Princeton
- 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 New Liberty

Since the 2012, the cities of Princeton and McCausland have begun to participate in the NFIP. The city of Walcott has since stopped participating. The City of Blue Grass has shown interest in taking the necessary steps to participating in the NFIP and are evaluating the merits of participating in the NFIP.

The participation in the NFIP enables residents and businesses access to flood insurance. The NFIP keeps records of the numbers of claims and the claim amount for each address with insurance. The Iowa State Floodplain Manager provided a report that listed 238 repetitive loss properties within Scott County as of June 30, 2016. Repetitive loss properties are any National Flood Insurance Program (NFIP) insured buildings for which two or more claims of more than $1,000 each were paid by the NFIP within any 10-year period. The 238 repetitive loss properties within Scott County account for approximately 770 claims totaling over $16,323,940 in damages. These claims are for both building and content losses. Of the repetitive loss properties in Scott County, there are 11 severe repetitive loss properties. Severe repetitive loss properties are properties with four or more claims exceeding $5,000, each paid by the NFIP within any 10-year period or at least two separate claims within any 10-year period (building damage only) that cumulatively exceed the market value of the building. Map 3-4 shows approximate locations of the repetitive loss and severe repetitive loss properties in Scott County. The 2013 *Iowa Hazard Mitigation Plan* states that an average of $404,000 in damages occur annually in Scott County. According to records provided by Iowa Homeland Security Emergency Management Division, the 2008 flood and windstorms caused extensive damage to publicly owned streets, sidewalks, utilities, and parks as well as the Davenport Community School District's stadium. Over $1 million in public assistance projects were repaired or replaced.

The following table summarizes the location of repetitive loss properties by jurisdictions:

Community	RLPs
Bettendorf	36
Buffalo	7
Davenport	108
LeClaire	4
Princeton	4
Scott Co.	79
Total	**238**

The following table summarizes the property type of each repetitive loss property in Scott County:

Property Class	Count
Unclassified*	9
Agriculture	2
Commercial	25
Commercial/Multi Family	3
Exempt	17
Industrial	2
Multi-Family Residential	2
Residential	178
Total	**238**

Of the 238 repetitive loss properties, nine were considered "unclassified" as a parcel could not be confidently associated with the identified street address.

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. Personal property can be extensively damaged and destroyed by swift moving water. Facilities and infrastructure can be scoured around, degrading its structural integrity. 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.

Operations could be disrupted from direct effects if facilities are in the floodplain and indirectly from loss of critical services to maintain operations. Back-up power and other services can eliminate the impact to operations. 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.

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. Crop and livestock losses and interruption of businesses either from direct flooding or loss of the delivery of critical services can have damaging effects on the local economy. River flooding can last for weeks, and the effects can last for months or even years following the flood. Economic effects can be felt with only a few days of disruption.

Warning Time. 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.

Duration. River flooding duration varies from a few hours to a few months depending on the severity of the flooding. The response to the effect of river flooding can be extensive and require many days to weeks to adequately respond to the needs of the county, cities, school districts, citizens, and businesses.

Vulnerability. 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. In situations where properties intersected both the 1% and 0.2% boundary, the 1% boundary was used. Following 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						
Flood Zone / Property Class*	**Count**	**Total Acres**	**Land Value**	**Dwelling Value**	**Improved Value**	**Total Value**
Unidentified	84	–	$ –	$ –	$ –	$ –
Agricultural	1,280	5055.9	$6,652,179	$23,964,729	$1,392,049	$32,168,949
Commercial	723	1594.0	$96,033,256	$ –	$326,129,758	$474,371,150
Commercial/Multi-family	22	18.6	$1,602,330	$935,651	$2,786,881	$5,483,060
Exempt	786	6709.3	$ –	$ –	$ –	$226,740,190
Industrial	110	1051.1	$23,929,090	$ –	$110,043,000	$138,494,560
Industrial/Multi-family	1	–	$29,250	$549	$101,871	$131,670
Multi-family	70	178.3	$9,319,520	$38,243,870	$ –	$49,327,400
Residential	4,081	4444.2	$149,634,830	$513,432,640	$ –	$667,406,180
Total	**7,157**	**19051.3**	**$287,200,455**	**$576,577,439**	**$440,453,559**	**$1,594,123,159**

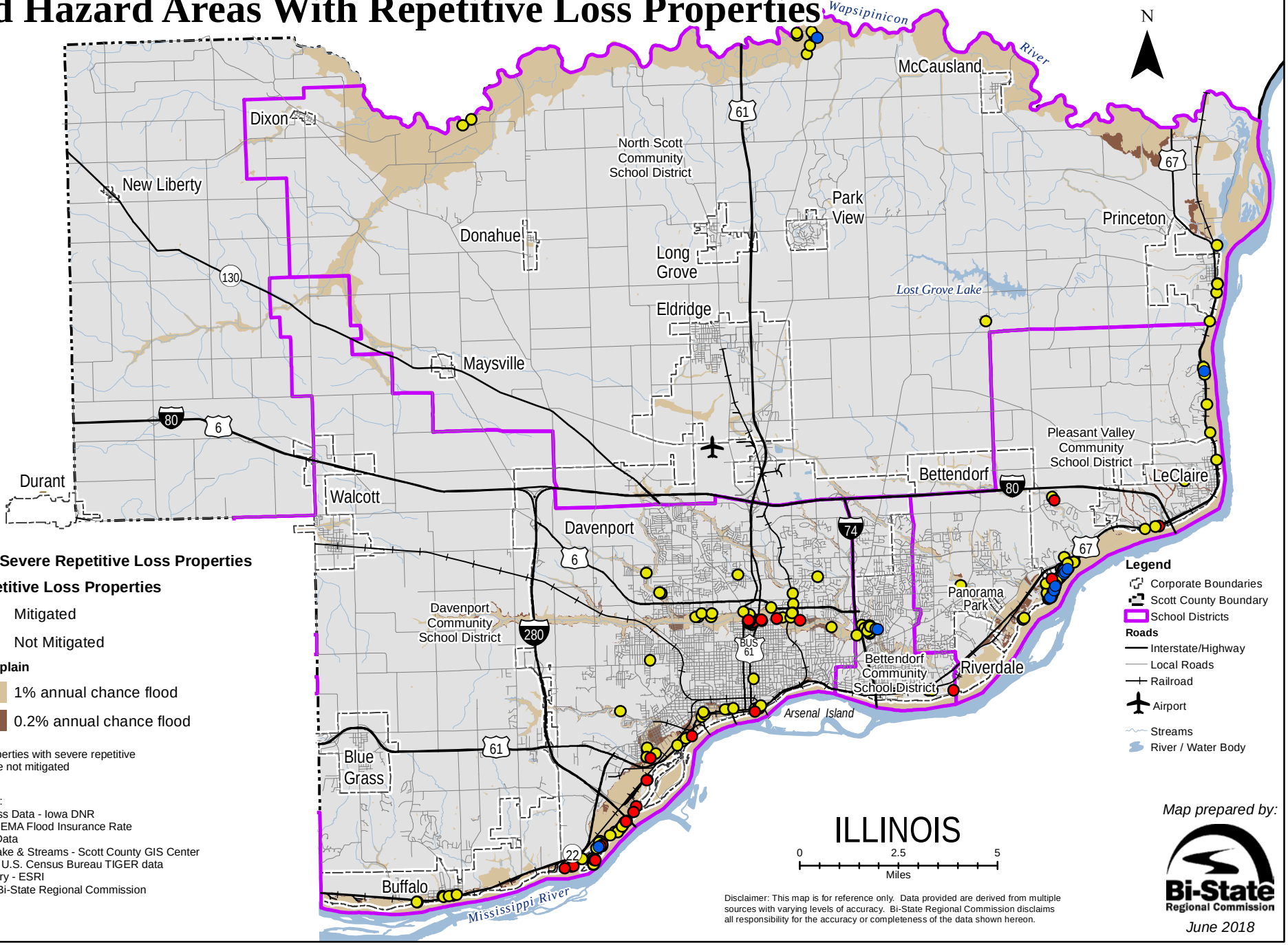
0.5% Annual Chance Special Flood Hazard Area						
Flood Zone / Property Class*	**Count**	**Total Acres**	**Land Value**	**Dwelling Value**	**Improved Value**	**Total Value**
Unidentified	2	–	$ –	$ –	$ –	$ –
Agricultural	51	1,262.7	$2,663,260	$2,845,890	$2,408,700	$3,166,590
Commercial	227	97.3	$19,430,520	$ –	$43,710,690	$65,235,360
Commercial/Multi-family	20	0.8	$542,370	$633,868	$1,084,852	$2,270,130
Exempt	51	70.4	$ –	$ –	$ –	$47,368,020
Industrial	37	120.3	$5,749,900	$ –	$39,342,230	$46,015,070
Industrial/Multi-family	1	1.3	$110,660	$31,520	$260,920	$403,100
Multifamily	23	13.9	$1,005,430	$3,512,340	$ –	$4,517,770
Residential	1,415	253.2	$40,009,820	$164,037,580	$ –	$204,143,840
Total	**1,827**	**1,819.8**	**$69,511,960**	**$171,061,198**	**$86,807,392**	**$373,119,880**

Also using GIS mapping, the number of building footprints within the DFIRMs were calculated using the "Intersect" function. Buildings with only a portion of the floodplain were classified as completely within the inundation area and floodplain. Buildings that intersected both the 1% and 0.2 % boundary were associated with the 1% boundary. The "Join by Location" function was used to assign jurisdiction information to the buildings. In cases where the building overlapped a jurisdictional boundary, it was associated with the jurisdiction that contained the majority of the building. The data used to count structures did not have building values or types (residential, commercial, and 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 following information 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	328	603
	Out Building	147	297
	Tank Silo	16	7
Buffalo	Building	37	144
	Out Building	43	145
	Tank Silo	7	30
	Sheds	0	1
Davenport	Building	612	1300
	Courtyard	2	1
	Houses	935	1182
	Sheds	198	289
	Tank Silo	10	12
	Tanks	16	72
	Trailers	47	131
Donahue	Building	0	9
	Out Building	0	18
	Tank Silo	0	3
Eldridge	Building	0	46
	Out Building	0	12
	Tank Silo	0	3
LeClaire	Building	43	73
	Out Building	24	66
McCausland	Out Building	0	1
Panorama Park	Building	0	12
	Out Building	0	17
Princeton	Building	20	47
	Out Building	23	18
Riverdale	Building	26	37
	Courtyard		10
	Out Building	10	99
	Tank Silo	0	39
Walcott	Building	0	26
	Out Building	0	18
Unincorporated Scott County	Building	16	386
	Out Building	24	488
	Sheds	0	1
	Tank Silo	0	15
	Tank	0	0
	Trailers	0	0

Map 3-4

Flood Hazard Areas With Repetitive Loss Properties



Data Sources:
Repetitive Loss Data - Iowa DNR
Floodplain - FEMA Flood Insurance Rate Map (FIRM) Data
Lost Grove Lake & Streams - Scott County GIS Center
School Dist. - U.S. Census Bureau TIGER data
State Boundary - ESRI
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

June 2018

HAZUS-MH

In the *Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*, Scott County elected to utilize HAZUS-MH (Hazards U.S. Multi-Hazard) to model and analyze river flooding within the planning area. Since then, they have lost the staffing capacity to run the model in-house. The following analysis is retained as historical information from the previous plan. HAZUS-MH 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^3/s).

The top four events for the Wapsipinicon River are:

Date	Wapsipinicon River Near DeWitt Tailwater (feet)	Wapsipinicon River near DeWitt Flow (f^3/s)
6/17/1990	14.19	40000*
6/16/2008	14.13	38415
5/30/2004	13.79	25400
5/24/1999	13.66	28026*

* 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^3/s)	Lock & Dam 15 Tailwater (feet)	Lock & Dam 15 Flow (f^3/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*

* 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, but they should be similar. Table 3-6 is a brief summary of the eight events modeled in HAZUS.

Table 3-6
HAZUS Modeled River Flood Events for Selected Dates

HAZUS Modeled Wapsipinicon 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**
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 data 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	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

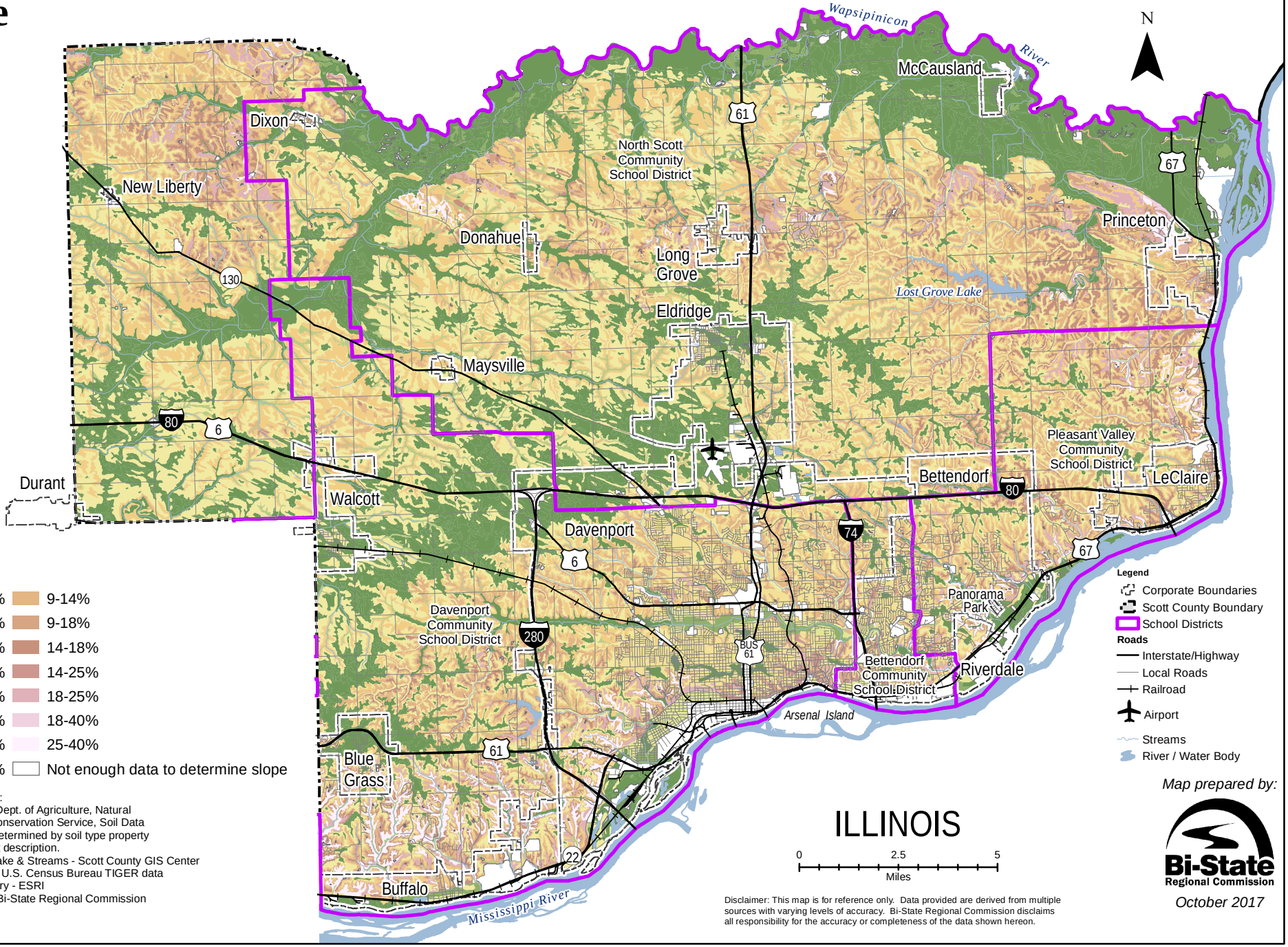
HAZUS Modeled 7/9/1993 Mississippi Flood Event						
Estimated Damage by Occupancy Type						
Occupancy	1-10%	11-20%	21-30%	31-40%	41-50%	Substantially
Agriculture	0	0	0	0	0	0
Commercial	2	14	2	15	8	0
Education	0	0	0	0	0	0
Government	0	1	2	0	0	0
Industrial	0	2	3	2	6	0
Religion	0	0	0	0	0	0
Residential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

Conclusions: Recovery from major flood events that damage a large area takes a significant amount of time, but with planning and mitigation, the effects of flooding can be minimized and the recovery period shortened. While river flooding cannot be prevented, there are several mitigation activities that can reduce the effects of flooding, including floodplain management, mitigation of flood prone properties, and recovery planning.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
State of Iowa, IHSEMD	Public Disaster from declarations spreadsheet
Iowa Statewide Floodplain Mapping Project	http://www.iihr.uiowa.edu/iowafloodmaps/
Scott County	*Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*
National Climatic Data Center	https://www.ncdc.noaa.gov/stormevents/
American Red Cross	http://www.redcross.org/get-help/prepare-for-emergencies/types-of-emergencies/flood#/Prepare
Department of Homeland Security	https://www.ready.gov/floods
Federal Emergency Management Agency (FEMA)	https://www.floodsmart.gov/floodsmart/
State of Iowa, DNR	State Floodplain Manager Repetitive Loss Report as of 6/30/2016
USACE	Rivergages.com
National Weather Service Advanced Hydrologic Prediction Service	http://water.weather.gov/ahps/

Map 3-5

Slope



Data Sources:
Slope - U.S. Dept. of Agriculture, Natural Resources Conservation Service, Soil Data Mart. Slope determined by soil type property from map unit description.
Lost Grove Lake & Streams - Scott County GIS Center
School Dist. - U.S. Census Bureau TIGER data
State Boundary - ESRI
Other Data - Bi-State Regional Commission

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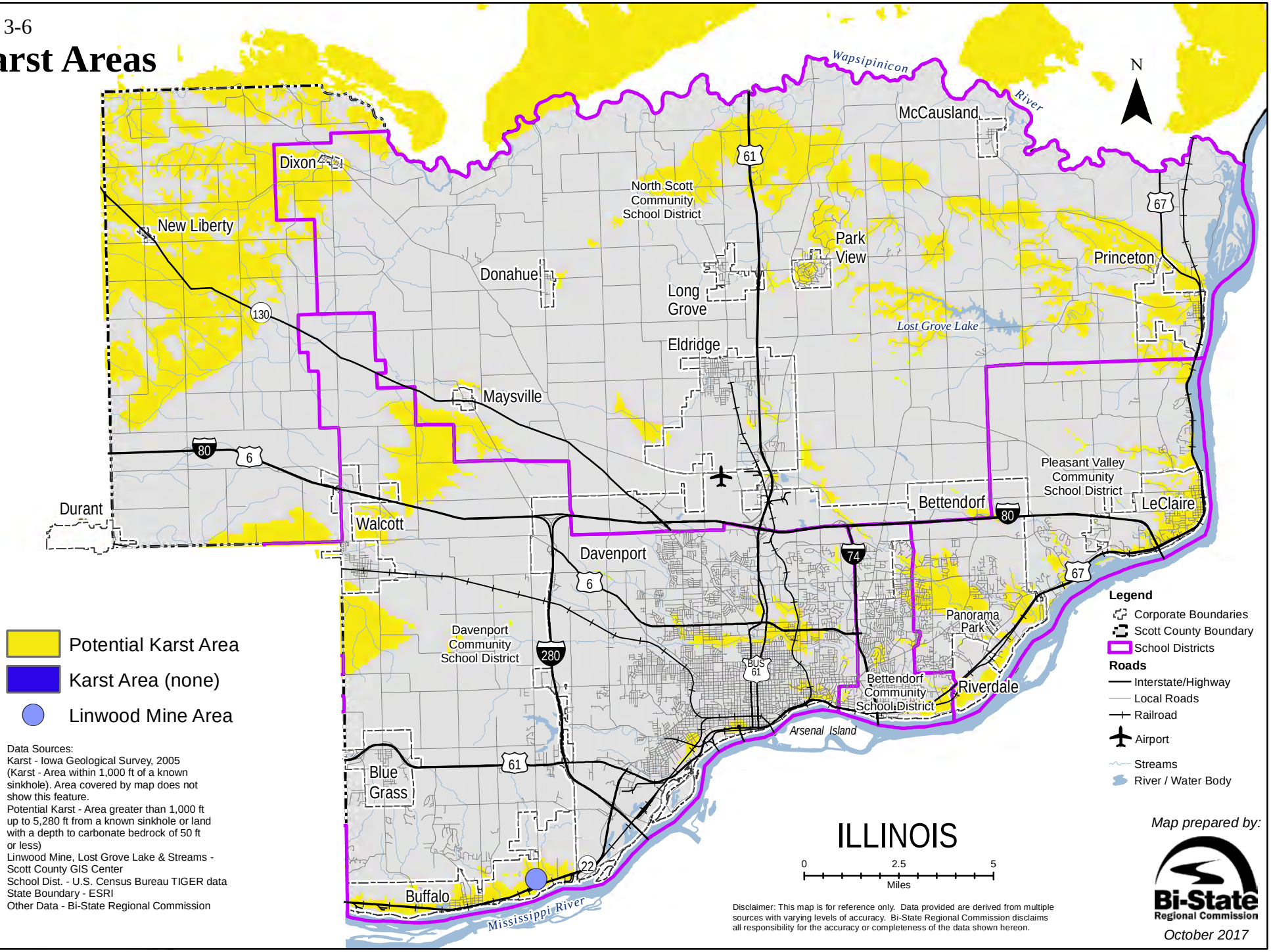
Map prepared by:

Bi-State Regional Commission

October 2017

Map 3-6

Karst Areas



Data Sources:
Karst - Iowa Geological Survey, 2005
(Karst - Area within 1,000 ft of a known sinkhole). Area covered by map does not show this feature.
Potential Karst - Area greater than 1,000 ft up to 5,280 ft from a known sinkhole or land with a depth to carbonate bedrock of 50 ft or less)
Linwood Mine, Lost Grove Lake & Streams - Scott County GIS Center
School Dist. - U.S. Census Bureau TIGER data
State Boundary - ESRI
Other Data - Bi-State Regional Commission

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Map prepared by:

Bi-State Regional Commission

October 2017

Severe Winter Storm

Severe winter storms are weather conditions that affect day-to-day activities. These can include blizzard conditions, heavy snow, blowing snow, freezing rain, heavy sleet, and extreme cold. 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 ¼ mile or less, and white-out conditions. Heavy snow of more than six inches in a 12-hour period or freezing rain greater than ¼ 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 lines 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.

There have been 122 winter weather events recorded in Scott County between 1/18/1996 and 6/30/2016 (NCDC). Events included were heavy snowfalls, extreme cold temperatures, blizzard conditions, freezing rain or glazing, blowing snow, frost, and sleet. Below are significant events that have occurred in the county.

- **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. Scott County was part of the declared disaster area and included in the Presidential Disaster Declaration (FEMA -1688-DR; March 14, 2007).
- **January 13-16, 2009:** Heavy snow fell January 13-14 (6-8 inches), then extreme cold temperatures set in on January 14-16. Actual air temperatures were -10° to -20° F (wind chills -30° to -50° F). Cedar Rapids set a record low of -29° F.
- **January 31-February 2, 2011:** A tremendous blizzard affected the region, with snowfall totals ranging from 10 to 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 55-65 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. Davenport received 19.7 inches of snowfall, with 15.0 measured in Park View.

- **February 1, 2015:** A prolonged snow event from the mid-afternoon on January 31 to late February 1 created widespread snow across the region. The heaviest snowfall of 9-15 inches fell along Interstate 80 corridor, with 13.3 inches measures in Davenport. Gusty northwest winds developed behind the system resulting in considerable blowing and drifting snow. Several areas experienced prolonged power outages and downed tree limbs due to heavy snow. The St. Ambrose University Athletic Dome collapsed under the weight on the snow accumulated during this event.

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.

Magnitude/Severity. Hazardous driving conditions due to snow and ice on highways and bridges lead to many traffic accidents. Rural roads are not plowed after dark as a policy of Scott County's Secondary Roads Department, potentially delaying ambulatory services during winter weather events. 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 2013 *Iowa Hazard Mitigation Plan* reports an average annual loss estimate of $74,898 from severe winter storms in Scott County. The National Climatic Data Center Storm Event Database reported $708,000 in winter storm related property damage between 1/18/1996 and 6/30/2016.

Location. The entire planning area is equally at risk for severe winter storm.

Warning Time. The National Weather Service (NWS) has developed effective weather advisories that are 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.

Duration. Winter storms may affect a large area, although local variations in storm intensity and quantity of snow or ice may occur. The duration of the storm will be determined by the local response to snow removal and any associated losses and dangers of electrical outages.

Vulnerability. Hazardous driving conditions due to snow and ice on highways and bridges lead to many traffic accidents. The leading cause of death during winter storms is transportation accidents. About 70% of winter-related deaths occur in automobiles, and about 25% are people caught out in the storm. The majority of these are males over 40 years of age. Emergency services such as police, fire, and ambulance are unable to respond due to road conditions. Emergency needs of remote or isolated residents for food or fuel, as well as feed, water, and shelter for livestock, are unable to be met. The Iowa Department of Transportation, county road departments, and local public works agencies are responsible for the removal of snow and treatment of snow and ice with sand and salt on the hundreds of miles of streets and highways in the county.

Cold temperatures can cause frostbite and hypothermia, especially when combined with wind chills that further reduce the perceived air temperature to exposed skin. Frostbite and hypothermia can affect anyone, but the elderly and the very young are particularly vulnerable. People engaged in outdoor activity (shoveling snow, digging out vehicles, or assisting stranded motorists) also have risk from prolonged exposure. Schools often close during extreme cold or heavy snow to protect children and bus drivers. As seen in the community profile, the some districts in Scott County are large in square area, which could place bus drivers and children at risk in transit to school.

Immobilized transportation (including emergency vehicles) downed trees and electrical wires, building and communication tower collapse, and bodily injury/death are just a few of the effects of a severe winter storm. Vehicle batteries and diesel engines are stressed, and the fuel often gels in extreme cold weather, which can affect transportation, trucking, and rail traffic. Rivers and lakes freeze, and subsequent ice jams threaten bridges and can close major highways. Ice jams can also create flooding problems when temperatures begin to rise. Ice coating at least one-fourth inch in thickness is heavy enough to damage trees, overhead wires, and similar objects and to produce widespread power outages. Buried water pipes can burst causing massive ice problems and loss of water and subsequent evacuations during sub-zero temperatures. Fire during winter storms presents a great danger because water supplies may freeze, and firefighting equipment may not function effectively, or personnel and equipment may be unable to get to the fire. If power is out, interiors of homes become very cold and lead to pipes freezing and possibly bursting. Citizens' use of kerosene heaters and other alternative forms of heating create other hazards such as structural fires and carbon monoxide poisoning.

Cold temperature effects on agriculture are frequently discussed in terms of frost and freeze affects early or late growing seasons and unprotected livestock. The cost of snow removal, repairing damage, and loss of business can have large economic effects on the community. The loss of revenue and the economic impact due to property damage and crop damage could be significant for Scott County if they experienced several severe storm events within a short period of time.

In Scott County, a large majority of the community could be injured or experience property damage from this hazard. Winter storms damage the roofs of the structures and can cause the collapse of the roofs when ice and snow build up to a substantial level. The critical structures, however, are cleared of snow frequently to prevent this damage. The major risk is a secondary event of power loss due to the above ground power lines. All structures would have equal vulnerability to this hazard since the hazard is not confined to a specific geographic area within Scott County. There is particular risk to the elderly and children since major storms can trigger loss of electricity and thus and heat in winter months.

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Sinkholes, Land Subsidence, and Landslides

Sinkholes, land subsidence, and landslides are all geologic events that involve mass movement of earth. They all have an isolated and narrow effect with a low probability of occurrence in Scott County. For these reasons, they have been combined into a single hazard profile for the purposes of this plan.

Sinkholes and land subsidence are a downward sinking, collapse, or a shifting of the land surface, oftentimes 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.

Sinkholes range from broad, regional lowering of the land surface to localized collapse. The primary causes of most subsidence are human activities, such as underground mining of coal or limestone, groundwater or petroleum withdraw, 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, Illinois 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 Linwood Mine near Buffalo in the 1960s. Sand and gravel are also extracted in Scott County in several locations. See maps for mines and types of product extracted.

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.

Landslides occur when susceptible rock, earth, or debris moves downslope under the force of gravity and water. They may impose a direct threat to life and property. Landslides can range from very large to very small and can move at slow to very high speeds. Landslides can be activated by alternate freezing and thawing, ground saturation on steep slopes, steepening of the slopes by erosion or human modification, and removal of stabilizing vegetation.

The Iowa Department of Transportation reconnaissance trips to over 50 active and repaired landslides in Iowa suggest that, in general, landslides in Iowa are relatively shallow (i.e. failure

surfaces less than 6 feet (2 meters) deep) and are either translational or shallow rotational. A translational slide involves planar failure surfaces with movement in which the vector is primarily down slope with no upward component. The movement may be essentially parallel to the original slope surface. A rotational slide includes a large downward component near the top of the slide and an upward component at the bottom of the slide. These slides are deeper than translational slides.

The steep hillsides adjoining the Mississippi and Wapsipinicon Rivers and along the Duck Creek are all prone to landslides or slumping. As shown in Map 3-5, areas with higher slopes can be found near the rivers and creeks within Scott County. Two recent occurrences were in the 2500 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.

On a statewide basis, the soil most frequently associated with slope failures is undifferentiated fill with 28% of the failures. Glacial till and loess account for 24% and 21% of the landslides, respectively. Alluvium is the soil associated with 13% of the slides, and shale is the material in 7% of the slides.

Most of the landslides in the northeastern and eastern part of Iowa occurred on backslopes (cuts); however, most of the landslides in the southeastern part of Iowa are in foreslopes (embankments). Statewide, 37% of slides are on foreslopes, 32% on backslopes, 26% along streams and riverbanks, and 5% on natural slopes.

Seventy-eight percent of the landslides identified by county engineers that occurred in Iowa from 1993-2001 happened in the spring with the remaining 22% happening in the summer. Fifty percent of the failures were associated with water; 28% of the slope failures occurred after heavy rainfall, and 22% were associated with high ground water table conditions. Twenty-one percent of the slope failures occurred due to design issues. In addition, maintenance or construction activities accounted for 1.4% of the stability problems while loading at the crest of slope, and other causes account for 5% and 10%, respectively. Statewide, 25% of the slides occurred in slopes between 1 foot and 10 feet high, 41% occurred in slopes 11-20 feet high, 21% occurred in slopes 21-30 feet high, and 13% occurred in slopes greater than 30 feet high. Slope was 3:1 on 96% of slopes prior to slope failure. See Map 3-5.

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.

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 and the Davenport Plant on Map 3-6.

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 in 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.

Per an IADOT survey of county engineers on the number of landslides that occurred in their county from 1993 to 2001, it was determined that southeast and western Iowa were high-risk areas for landslides. These high-risk areas contain deep to moderately-deep loess. Most of the counties in the eastern part of Iowa had a significant number of landslides from 1993 to 2001, ranging from 6 to more than 15, except Scott County with 1-5 landslides.

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. The 2013 *Iowa Hazard Mitigation Plan* evaluated the probability of a significant landslide event in Iowa and indicated it was between 10% and 19% in any given year.

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. (See Map 3-6)

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

an open pit mine. The Linwood Mine is a continuous underground mining operation and one of the largest in the country. The mine operates 12 months of the year. It is mined using the "room and pillar" method, which results in large underground voids on two "floors," 90 and 130 feet below the ground's surface. Linwood Mining and Mineral, Corp. has operated quarry and lime production facilities in this area since the 1940s. The Linwood underground mine has been in operation since the 1960s and currently mines approximately 32 acres per year.

The Iowa DNR Geological and Water Survey division has identified and recorded 37 underground coal mine locations in Scott County. Those records document mine operations as early as 1840 near Jamestown (former mine camp north of Buffalo, near 100th 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 the coal mine shaft locations are in Buffalo Township, Sections 2, 3, 5, 6, 9, 19, 11, and 16. 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. 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 to 1936 in the S. E. Part of the N.E. Part of Section 3, T77N, R2W. There are no maps for the other 36 known mines, just general shaft locations pinpointed to the nearest quarter or full section.

Severity.

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.

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.

C. *Continuity of operations:* Depends on the area damaged and the facilities and infrastructure involved.

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.

E. *Delivery of services:* Likely not affected.

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.

G. *Economic and financial conditions:* Land subsidence events have damaged homes and commercial structures, disrupted gas/electricity, water service, communications, and

could even disrupt transportation routes. A large subsidence at the Linwood Mine would disrupt mine operations and have some minor economic effects on the county.

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 complete.

I. *Reputation of the entity:* The reputation of Scott County would not be affected. The reputation of the Linwood Mine Company would possibly be affected if a large subsidence occurred.

General landslides may pose a greater risk to property than to life. Sudden landslides may pose a threat to life, if warning signs of slope failure in structures overlooking steep slopes goes undetected or are ignored. According to the United State Geological Survey (U.S.G.S.), landslides threaten lives and property in every state in the nation, resulting in an estimated 25 to 50 deaths and damage exceeding $2 billion annually. Landslides are also a significant component of many major natural disasters and are responsible for greater losses than is generally recognized. Landslide damage is often reported as a result of a triggering event—floods, earthquakes, or volcanic eruptions—even though the losses from land sliding may exceed all other losses from the overall disaster.

Landslides have a significant adverse effect on buildings and infrastructure and threaten transportation corridors, fuel and energy conduits, and communications linkages. Road building and construction often exacerbate the landslide problem in hilly areas by altering the landscape, slopes, and drainages and by changing and channeling runoff, thereby increasing the potential for landslides. Landslides along roads can disrupt the use of that road until repairs are made to stabilize the slope and remove debris. Utilities such as pipelines, phone or fiber optic cables, power poles, etc. are often vulnerable to the downward movement of soil or rock. This may cause disruptions to water or sewer service, electricity, phone service, or internet access.

Landslides and other forms of ground failure also have adverse environmental consequences, such as dramatically increased soil erosion, siltation of streams and reservoirs, blockage of stream drainages, and loss of valuable watershed, grazing, and timber lands. Breakage of sewer mains could release hazardous materials. Breakage of gas pipelines could result in fire and disruption of supply. Landslides impose many direct and indirect costs on society. Direct costs include the actual damage sustained by buildings and property, ranging from the expense of cleanup and repair to replacement. Indirect costs are harder to measure and include business disruption, loss of tax revenues, reduced property values, loss of productivity, losses in tourism, and losses from litigation. The indirect costs often exceed the direct costs.

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. No information on damages caused by landslides is available at this time, so estimating potential losses is difficult.

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 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.

Landslide formation can be very slow or can occur very quickly. Landslides are often triggered by other natural hazards. Landslides and heavy rain or flooding and ground saturation can occur together. Landslides can be detected if areas at high risk are monitored for early signs of a slide such as cracks or a scarp at the top of the slope, a bulge at the bottom of the slope, diagonal cracks along the slope, ponded water indicating localized seepage, cattails or willows indicate localized seepage, and tilted tree trunks. Along roadways, instability below a roadway on foreslopes and backslopes can be indicated by pavement settlement, deformed guardrails, or erosion at the outlet of a drain structure. Instability above a roadway on foreslopes can be indicated by debris on the roadway and blocked drainage ditches.

Duration: The response tied to landslides is related to securing the immediate threat to life and property including immediate reroute of traffic from the affected infrastructure and search and rescue in the case of structural collapse. Return to use of facilities and roads could take hours to many days depending on the severity of the landslide and the actions needed to secure the slope.

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 (building, 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 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.

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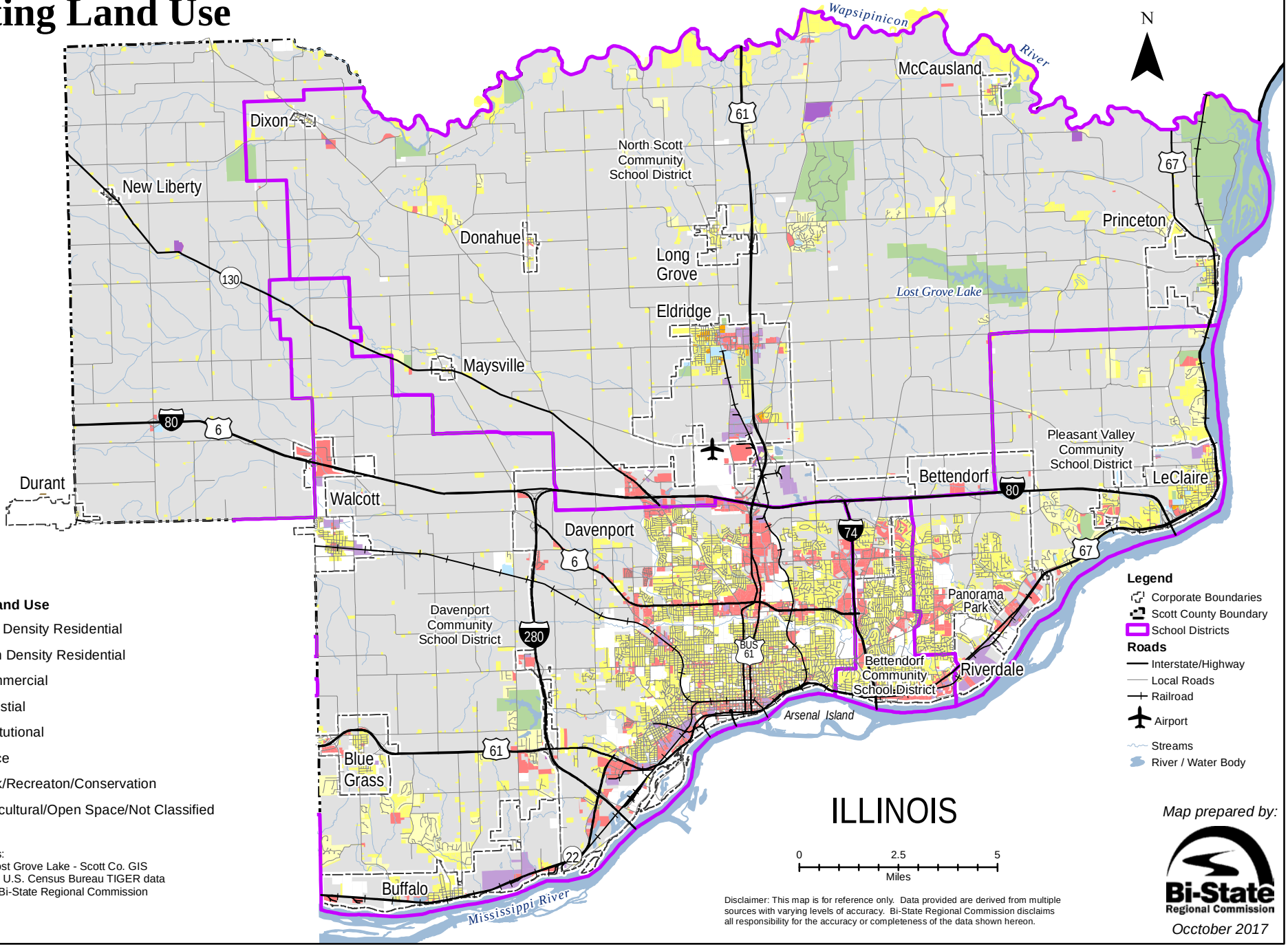
Map 3-7

Existing Land Use



Legend

Existing Land Use

- Low Density Residential
- High Density Residential
- Commercial
- Industrial
- Institutional
- Office
- Park/Recreaton/Conservation
- Agricultural/Open Space/Not Classified

Data Sources:
Streams & Lost Grove Lake - Scott Co. GIS
School Dist. - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

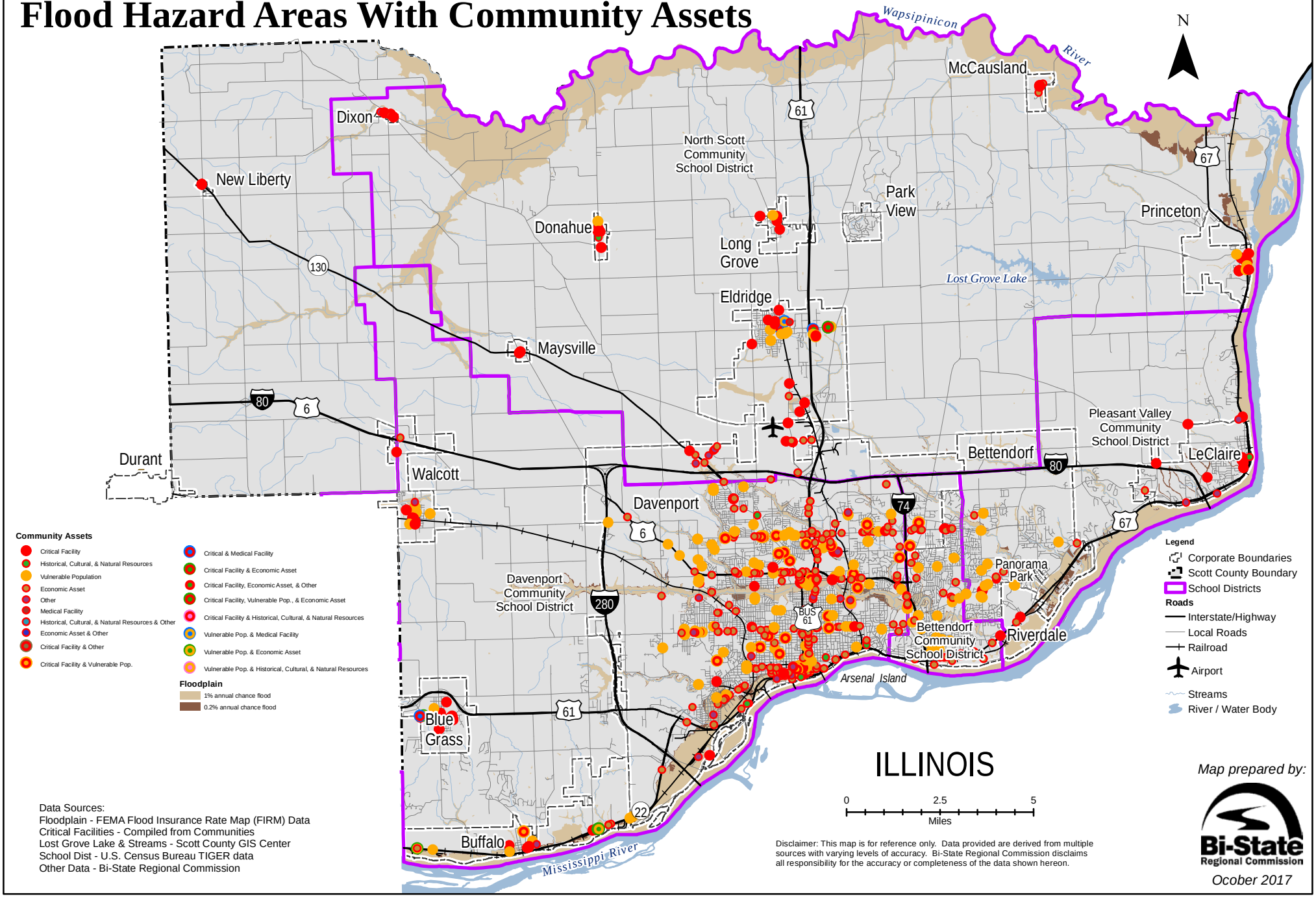
Map prepared by:

Bi-State Regional Commission

Occtober 2017

Map 3-8

Flood Hazard Areas With Community Assets



Data Sources:
Floodplain - FEMA Flood Insurance Rate Map (FIRM) Data
Critical Facilities - Compiled from Communities
Lost Grove Lake & Streams - Scott County GIS Center
School Dist - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

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Map prepared by:

Bi-State Regional Commission

Ocober 2017

Thunderstorm, Hailstorm, and Lightning

Thunderstorms are common in Iowa and can occur singly, in clusters, or in lines. Thunderstorms typically include thunder caused by lightning, heavy rains (which may cause flash flooding), and strong winds reaching or exceeding 58 mph producing tornados, and may also include surface hail of at least 1.00 inch in diameter. They are created from a combination of moisture, rapidly raising warm air, and a lifting mechanism such as clashing warm and cold air masses.

Most thunderstorms produce only thunder, lightning, and rain. Severe storms, however, can produce tornados, straight-line winds and microbursts above 58 mph, hailstorms, and flooding. The National Weather Service considers a thunderstorm severe if it produces hail at least one-inch in diameter, wind 58 mph or higher, or tornados. Straight-line winds can often exceed 60 mph, are common occurrences, and are often mistaken for tornados. A number of thunderstorms have caused other hazards such as flash flooding, river flooding, and tornados. The associated hazards related to thunderstorms are discussed further as separate hazards.

The National Climate Data Center records 474 thunderstorm, lightning, and hail events for Scott County dating from 9/27/1959 to 7/31/2016. Because thunderstorms may occur singly, in clusters, or in lines, it is possible that several thunderstorms may affect the same area in the course of a few hours. 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 $2 million occurred on July 12, 2016.

The data for thunderstorms also includes other high wind events. Since windstorms are a separate hazard profile for Scott County, high wind events exceeding 72 MPH will be discussed in that profile. Because most of those windstorms were also associated with thunderstorms, they were not removed from the total number of thunderstorm events. It is common to have multiple entries in the database per day; however, that is being interpreted as separate storm events that can occur in quick succession.

Lightning is an electrical discharge that results from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a “bolt.” This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning reaches temperatures approaching 50,000 degrees Fahrenheit in a split second. This rapid heating, expansion, and cooling of air near the lightning bolt creates thunder.

Hailstorms are an outgrowth of a severe thunderstorm in which ball- or irregularly-shaped lumps of ice greater than 1 inch in diameter fall with rain. Strong rising currents of air within a storm carry water droplets at 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.

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 as follows includes hail diameter size in both metric (mm) and inches measurements.

TORRO Hail Size Damage

Size code	Diameter		Description	Damage Effects
	mm	inches		
H0	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
H3	20-30	0.4-1.8	Nickel size	Breaks glass panels 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
H6	40-60	1.2-3.9	Baseball size	Breaks many roof tiles, damages roofs
H7	50-75	1.8-4.9	Grapefruit size	Shatter roofs, serious damage to cars
H8	60-90	2.4-5.0	Softball size	Cracks concrete roofs, splits trees, injury to people
H9	75-100	3.2-5.0	Softball size	Marks concrete walls, kills people, fells trees
H10	>100	4.0-7.0	Melon size	Destroys wooden houses, damages brick homes, kills people

Probability. The SHMT analysis evaluated the probability that thunderstorms and lightning affect Iowa as highly likely in any given year. In Scott County, that translates to about four severe thunderstorms annually. With Iowa's location in the interior of the U.S., there is a very high likelihood that a few of these summer storms will become severe and cause damage. Because of the humid continental climate that Iowa experiences, ingredients of severe thunderstorms are usually available (moisture to form clouds and rain, relatively warm and unstable air that can rise rapidly, and weather fronts and convective systems that lift air masses).

Magnitude and Severity. Those in unprotected areas, mobile homes, or automobiles during a storm are at risk. Sudden strong winds often accompany a severe thunderstorm and may blow down trees across roads and power lines. Lightning presents the greatest immediate danger to people and livestock during a thunderstorm. It is the second most frequent weather-related killer in the U.S. with nearly 100 deaths and 500 injuries each year. (Floods and flash floods are the number one cause of weather-related deaths in the U.S.) Livestock and people who are outdoors, especially under a tree or other natural lightning rods, in or on water, or on or near hilltops are at risk from lightning. Hail can be very dangerous to people, pets, and livestock if shelter is not available. Flash floods and tornados can develop during thunderstorms as well. People who are in automobiles or along low-lying areas when flash flooding occurs, and people who are in mobile homes are vulnerable to the effects of severe thunderstorms. For more details on the vulnerabilities from the flooding and tornado hazards, see that specific hazard profile.

Severe thunderstorms can be quite 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 most non-severe thunderstorms have a lifespan of 20 to 30 minutes, while severe thunderstorms last longer than 30 minutes.

Like tornados, thunderstorms, hail, and lightning can cause death, serious injury, and substantial property damage. The power of lightning's electrical charge and intense heat can electrocute people and livestock on contact, split trees, ignite fires, and cause electrical failures. Thunderstorms can also bring large hail that can damage homes and businesses, break glass, destroy vehicles, and cause bodily injury to people, pets, and livestock. Hail only rarely results in loss of life directly, although injuries can occur.

High winds can damage trees, homes (especially mobile homes), and businesses, and can blow vehicles off of the road. Straight-line winds are responsible for most thunderstorm damage. One or more severe thunderstorms occurring over a short period (especially on saturated ground) can lead to flooding and cause extensive power and communication outages as well as agricultural damage. The 2010 *Iowa Hazard Mitigation Plan* estimates that losses from lightning and thunderstorms total approximately $165,824 annually in Scott County. The National Climatic Data Center Storm Event Database lists $6,602,000 in property damage and $470,100 in crop damage from thunderstorm, hail, and lightning events.

Location. The entire planning area is equally at risk for thunderstorm, hailstorm, and lightning.

Warning Time. Some thunderstorms can be seen approaching, while others hit without much warning. The National Weather Service issues severe thunderstorm watches and warnings as well as statements about severe weather and localized storms. These messages are broadcast over NOAA Weather Alert Radios and area TV and radio stations. Advances in weather prediction and surveillance 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 with adequate time to prepare. Isolated problems arise when warnings are ignored.

Duration. Immediate responses related to severe thunderstorms and lightning events are more aptly associated with the cascading effects of multiple events occurring over a short time period in the case of flash and river flooding, and particularly severe thunderstorm events in the case of tornados. Response to thunderstorm events is relatively minor in scope.

Vulnerability. Thunderstorms are hazards unto themselves, but can cause other hazards such as flash flooding, river flooding, and tornados. Those in unprotected areas, mobile homes, or automobiles during a storm are especially at risk. Sudden strong winds often accompany a severe thunderstorm and may blow down trees across roads and power lines. Lightning presents the greatest immediate danger to people and livestock during a thunderstorm. It is the second most frequent weather-related killer in the U.S. with nearly 100 deaths and 500 injuries each year (after flash floods). Livestock and people who are outdoors, especially under a tree (or other natural lightning rods); in or on water; or on or near hilltops are at risk from lightning. Hail can be very dangerous to people, pets, and livestock if shelter is not available. People who are in automobiles or along low-lying areas when flash flooding occurs and people who are in mobile homes are vulnerable to the effects of severe thunderstorms.

In Scott County, a majority of people and buildings are vulnerable and may be injured or experience property damage from this hazard. The amount of possible property damage can be seen in Table 3-5 that shows the value of all assessed property in Scott County. Damage caused by a severe thunderstorm will likely most affect personal property, particularly older structures. Over 83% of the residential buildings in Scott County were built prior to 1980, and may be more likely to experience roofing damage and damage to the siding during high winds and lightning.

Mobile home parks may also sustain wind damage and are at risk for toppling over in high winds. All of the structures within the county, regardless of whether they are critical facilities or not, are at risk of damage due to this hazard.

These hazards could affect a large majority of the population and area of Scott County. However, there is particular risk to the elderly population since lightning and windstorms can trigger loss of electricity, thus cutting off air conditioning in the summer and heat in the cooler winter months. Elderly and children under 18 are populations that would be more adversely affected by loss of power than the remainder of the population.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2010*
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms
TORRO Hailstorm Intensity Scale Storm Track Severe Weather Tables	http://www.torro.org.uk/TORRO/severeweather/hailscale.php http://www.stormtrack.org/library/edu/tables.htm

Tornado

A tornado is a violent whirling wind characteristically accompanied by a funnel-shaped cloud extending down from a cumulonimbus 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. A tornado can be a few yards to about a mile wide where it touches the ground, but an average tornado 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.

In the U.S., Iowa is ranked third in the number of tornados per 10,000 square miles. Between 1950 and 2010, Iowa averaged approximately 40-50 tornados per year. In Iowa, most tornados occur in spring and summer months, but they can and have occurred in the fall and winter months. Tornados are most common in late afternoon to evening hours, but they can occur at any time of the day.

According to the National Climatic Data Center, there were 47 tornado reports for Scott County between 1/01/1950 and 6/30/2016. This number does not clearly represent individual tornado events, since there are duplicate reports for the same event or, in one case, multiple tornados on the same day. By analyzing the reports and including the most recent tornados, there appears to be 31 separate tornado events with an average interval of three years over the reporting period. Most of the reports are of F0 or F1 tornados. Notable events include:

- **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.
- **May 18, 1997:** A brief tornado touchdown near the intersection of 18th Street and Middle Road in Bettendorf as part of a very damaging hailstorm.
- **May 10, 2001:** A tornado touched down in LeClaire 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.
- **April 13, 2006:** An F1 tornado began north of Interstate 80, 4 miles west of LeClaire. The tornado traveled east crossing 257th Avenue just south of 205th Street. The tornado damaged buildings on a nearby farm. Damages were around $60,000.
- **May 30, 2013:** An EF1 tornado touched down in Andalusia, IL and traveled north-northeast into Scott County, IA through eastern sections of Buffalo, IA, affecting a few houses. The primary impact was to the parks on the eastern edge of town. Wind speeds were estimated to be 95 mph. Some large trees were snapped and uprooted along the path. Some of the fallen trees fell onto houses, with total damages at $100,000.

- **November 11, 2015**: An EF-1 Tornado formed Southwest of Le Claire, traveled to the north and east through the town, breaking and uprooting numerous trees, damaging outbuildings and causing roof and siding damage to about 25 homes. One home lost the roof completely. The tornado appeared with virtually no warning and was on the ground for about 2 miles. Total damage to private property exceeded $500,000
- **October 6, 2016:** An EF1 tornado began in western Davenport, tracking to the northeast. Damage began on Credit Island and extended through downtown Davenport, the Village of East Davenport, Bettendorf, and into northeast Scott County. Along the path, damage was primarily to trees and outbuildings but also affected many residences and private properties. Many trees fell on homes and cars. In downtown Davenport, the roof of the jail and the roof of a homeless shelter were also damaged. Peak wind was estimated at 100 mph.
- **March 6, 2017:** An EF2 tornado 1,000 yards wide began in Muscatine County and then tracked into Scott County near Blue Grass, through northwest Davenport and Eldridge. Power poles were snapped, a house lost its roof, and numerous farm buildings and trees were damaged. Estimated wind speed was 120 mph. The tornado path was 25.3 miles.

Probability. The State Hazard Mitigation Team analysis evaluated the probability that damaging tornados will occur in Iowa is highly likely in any given year. Using the number of events in Scott County over the recording period, it is likely that a tornado event will occur every three years.

Maximum Extent: The rating scale used to rate tornado intensity is called the Fujita Scale that estimates wind speeds based on the damage 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.

Magnitude and Severity. The rating scale used to rate tornado intensity is called the Fujita Scale that estimates wind speeds based on the damage 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 Enhanced Fujita scale replaced the original as of February 1, 2007 in all tornado damage surveys done in the United States.

The Enhanced Fujita (EF) Scale

Fujita Scale			Operational EF Scale	
F Number	Fastest ¼ mile (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

Those most at risk from tornados include people living in mobile homes, campgrounds, and other dwellings without secure foundations or basements. People in automobiles are also very vulnerable to tornados. 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.

Generally, the destructive path of a tornado is only a couple of hundred feet in width, but stronger tornados 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 wider area. The 2013 *Iowa Hazard Mitigation Plan* estimates that losses from tornados in Scott County total approximately $574,000 annually. According to the National Climatic Data Center Storm Event Database, $36,196,000 in property damage and $70,050 in crop damage were estimated to have occurred within Scott County between 1/1/1950 and 6/30/16.

Effects can range from broken tree branches, shingle damage to roofs, and some broken windows all the way to the complete destruction and disintegration of well-constructed structures, infrastructure, and trees. Tornados can affect many critical services, mainly electrical power. Buried services are not as vulnerable, but can be affected by their system components that are above ground.

Whole towns have been known to be "wiped off the map." Economic effects can result from direct damage to facilities or business disruption from the lack of critical services such as power, gas, or water. This is considered a countywide hazard. While a tornado is unlikely to affect the entirety of the county on any given occurrence, tornados are likely to strike anywhere within the county.

Location. The entire planning area is equally at risk for tornados.

Warning Time. Tornados 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 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 minutes. Tornados have been known to change paths very rapidly, thus limiting the time in which to take shelter. Tornados may not be visible on the ground due to blowing dust or driving rain and hail.

Duration. The response to a tornado event is tied to responding to the immediate threat to life and property immediately following the tornado event and in the shelter of affected families and individuals.

Vulnerability. Those most at risk from tornados include people living in mobile homes, campgrounds, and other dwellings without secure foundations or basements. People in automobiles are also very vulnerable to tornados. The elderly, very young, and the physically and mentally handicapped are most vulnerable because of the lack of mobility to escape the path of destruction. People who may not understand watches and warnings due to language barriers are also at risk.

In Scott County, possible injury and/or property damage due to this hazard would be widespread. The amount of possible property damage can be seen in Table 3-5 that shows the value of all assessed property in Scott County. A tornado would prove devastating to any structure it hit, regardless of whether it was a critical structure or not. The level of damage would be a total collapse of the structure in the most intense situation, with wind damage to roofs and siding to those structures not directly hit. Also, damage from flying debris could shatter windows and cause roof damage. Some critical structures in Scott County are susceptible to wind damage and if hit directly, would not be able to function. Older buildings, buildings in poor condition, and mobile homes would be especially susceptible.

Mobile home parks would be of particular concern as they are home to a high density of residents with structures not built to withstand high wind speeds. In addition, places with high densities of people such as schools, nursing homes, and large apartment buildings are also vulnerable.

Sources	
National Climatic Data Center/Enhanced Fujita Scale	*http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/educational/fujita.html*
National Climatic Data Center	*http://lwf.ncdc.noaa.gov/oa/climate/severeweather/tornados.html* *and* *http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms*
The State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2013*
Quad-City Times	*http://qctimes.com/news/local/nws-con%E3%80%80%E3%88%80rms-tornados-from-thursday-s-storm/article_0fa36cb4-8d48-11e6-8c8b-afa76959b8ba.html*

Windstorm

Windstorms can be described as extreme winds associated with severe winter storms, severe thunderstorms, downbursts, and very strong pressure gradients. Windstorms, other than tornados, are experienced in all regions in the United States. It is difficult to separate the various wind components that cause damage from other wind-related natural events that often occur with or generate windstorms.

Although Iowa does not experience direct effects of hurricanes, the state is no stranger to strong, damaging winds. Unlike tornados, windstorms may have a destructive path that is tens of miles wide, and the duration of the event could range from hours to days. These events can produce straight line winds in excess of 64 knots (73 mph) causing some power outages, property damage, impaired visibility, and crop damage. The Beaufort Wind Scale below identifies winds above 73 mph as hurricane force winds.

Beaufort Wind Scale

Windspeed in MPH	Visible Conditions
25-31	Strong breeze large branches in motion; telephone wires whistle; umbrellas used with difficulty
32-38	Moderate gale whole trees in motion; inconvenience in walking against wind
39-46	Fresh gale breaks twigs off trees; generally impedes progress
47-54	Strong gale slight structural damage occurs; chimney pots and slates removed
55-63	Whole gale trees uprooted; considerable structural damage occurs
64-72	Storm very rarely experienced; accompanied by widespread damage
73+	Hurricane devastation occurs

Historically, windstorms are associated with severe thunderstorms and blizzards. The National Weather Service has developed a windstorm warning system similar to other events such as tornado, winter storm, and thunderstorm. Watches are issued when conditions are favorable for windstorms to develop, and they come 12 to 24 hours in advance. Advisories are issued when existing or imminent high winds cover part or all of the forecast area and pose a threat to life and property.

Based on historical statewide averages, Iowa would expect to have 15 to 20 wind events each year where wind speeds exceed 74 mph. The National Climate Data Center (NDCD) records 17 events for Scott County between 1974 and 2016 where high winds were the chief hazard. In some cases, there were multiple instances of wind gusts exceeding 64 knots per a given event. Following are notable events.

- **May 10, 1996:** A thunderstorm created winds of 85 knots (almost 98 mph), the strongest in Scott County's recorded history. This event affected 150 buildings in Parkview and caused over $1 million in total damages. Parkview was part of a larger swath of damage from Durant in Cedar County, Iowa through Fulton in Whiteside County, Illinois.

- **June 21, 1997:** Strong and damaging winds swept through Eastern Iowa and Northwestern Illinois causing several injuries and one fatality. Many large healthy, even landmark, trees were downed. Downed trees caused widespread power outages and blocked roads. The most severe winds tracked along portions of the Wapsipinicon River causing extreme damage to homes and cabins. In the Davenport area, winds reached 80 knots, and a child was killed by a downed tree. Total property damage reported by the NCDC was $140,000.
- **June 6, 1999:** Thunderstorm winds caused $12,000 in damage in Dixon. Winds in excess of 80 mph destroyed a barn. Several trees were uprooted and outbuildings suffered heavy damage. Two pickup trucks were also damaged.
- **September 11, 2000:** Winds estimated in excess of 70 mph at times battered much of the Iowa Quad Cities. The Cities of Bettendorf, Pleasant Valley, Riverdale, and Davenport were hit hardest with numerous trees and power lines knocked down. Twenty-eight thousand homes were without power in the Quad Cities, and many did not have power restored for days. The lack of power forced the cancellation of classes at Scott Community College. The storms also did considerable damage to many of the area's corn and soybean crops. Damage was widespread but variable, with as much as 10 percent of the corn crop damaged in some areas.
- **August 20, 2003:** Thunderstorms developed during the afternoon in Central Iowa along an old stationary front in hot and humid conditions. The thunderstorms moved into Eastern Iowa and became severe. Winds of 50 mph were common along the main gust front breaking many small limbs from trees. The storms reached maximum intensity between 1700 and 1800 CST in Eastern Iowa where a downburst caused severe damage to the National Weather Service (NWS) office in Davenport, Iowa. NWS personnel at Davenport Weather Forecast Office estimated winds of at least 80 knots (92 mph) lasting for 2 or 3 minutes. A total of $91,000 in damages were reported.

Probability. Large-scale extreme wind phenomena are experienced over every region of the United States. Historically, high wind events are associated with severe thunderstorms and blizzards. It is often difficult to separate windstorms and tornado damage when winds get above 64 knots (74 mph). Based on historical information, Scott County can expect to have 1-2 windstorms every one to two years. According to the 2013 *Iowa Hazard Mitigation Plan,* probability that damaging tornados or windstorms will occur in Iowa is highly likely in any given year. Scott County has chosen to define the same probability of occurrence.

Magnitude and Severity. The National Climatic Data center reports a total of $2.891 million in property damage caused by windstorms between 1974 and 2015. The 2013 *Iowa Hazard Mitigation Plan* estimated that windstorms cause approximately $23,060 in losses in Scott County annually. Those most at risk from windstorms include people living in mobile homes, campgrounds, and other dwellings without secure foundations or basements. People in automobiles are also very vulnerable to wind storms, particularly tornados. The elderly, very young, and the physically and mentally handicapped are most vulnerable because of the lack of mobility to seek shelter or escape the path of destruction. People who may not understand watches or warnings due to language barriers are also at risk.

Unlike tornados, 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. Effects can range from broken tree branches, shingle damage to roofs, and some broken windows all the way to the complete destruction of well-constructed structures, infrastructure, and trees. Crop damage is often associated with windstorms, laying down crops, breaking stalks, and twisting plants, reducing yield and making it difficult to harvest.

Windstorms can affect many critical services, especially electrical power. Disruption of critical services can also affect operations. Employees may be affected and unable to attend work-related functions. Economic effects can result from direct damages to facilities or business disruption from the lack of critical services such as electrical power.

Warning Time. Wind speed may approach 120 miles-per-hour, and the storm can travel across the ground at more than 50 mph. These winds can uproot trees and structures and turn harmless objects into deadly missiles, all in a matter of seconds. The advancement in weather forecasting has allowed watches to be delivered to those in the path of these storms up to hours in advance. The best warning lead time for a specific storm is about 30 minutes.

Location. The entire planning area is equally at risk for windstorms.

Duration. The response tied to windstorm events is one directly related to the immediate protection of vulnerable populations from the direct threat to life and property. Response time is limited to event duration and immediate impact.

Vulnerability. Windstorm is primarily a public safety and economic concern, and the planning area is located in a region with very high frequency of occurrence. Windstorm can cause damage to structures and power lines, which in turn create hazardous conditions for people. Debris flying from high wind events can shatter windows in structures and vehicles and can harm people who are not adequately sheltered.

Although windstorms occur frequently in the planning area and damages to property occur, much of the damage is generally covered by private insurance. This results in less affect to individuals and the community since recovery is facilitated by insurance. Occupants of campers, construction trailers, mobile homes, outbuildings, barns, and sheds and other dwellings without secure foundations or basements are particularly vulnerable as windstorm events in Scott County can be sufficient in magnitude to overturn these lighter structures. Overhead power lines and infrastructure are also vulnerable to damages from windstorms. Potential losses would include cost of repair or replacement of damaged facilities, and lost economic opportunities for businesses. Public safety hazards include risk of electrocution from downed power lines. Specific amounts of estimated losses are not available due to the complexity and multiple variables associated with this hazard.

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2010, 2013*
National Climatic Data Center	http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms

Assessing Vulnerability: Overview

This section analyzes the vulnerability of the county to natural 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 *Iowa Hazard Analysis and Risk Assessment: 2003 Local Guide*.

Community Profile: Scott County, Iowa

The community profile for Scott County provides highlights on a variety of subjects, including climate and weather; communications; education; labor force, economy, and employment; geography and land use; housing; infrastructure; local history; medical and healthcare; and demographics. These county characteristics provide background on what might be at risk due to natural hazards including people, homes, communications, and economic centers.

Climate and Weather

The climate in Scott County is subhumid midcontinental with an average annual temperature of 51 degrees Fahrenheit. The average July temperature is 75.4 degrees Fahrenheit, and the January average temperature is 22.6 degrees Fahrenheit. The typical precipitation in Scott County is 37.96 inches with an average of 31.6 inches of snowfall, and an average wind speed of 7.4 mph.

Source: National Weather Service Forecast Office. (1981-2010 Normals)

Monthly Normals for Moline Quad City International Airport

Month	Average Temperature	Probability of Precipitation
January	22.6	1.5%
February	27.0	1.6%
March	39.1	2.9%
April	51.4	3.6%
May	61.8	4.3%
June	71.5	4.5%
July	75.4	4.3%
August	73.5	4.5%
September	65.4	3.1%
October	53.2	3.0%
November	40.0	2.6%
December	26.6	2.2%

Source: National Oceanic & Atmospheric Administration. National Environmental Satellite, Data, and Information Service. Moline Quad City International Airport Station. 1981-2010 Station Normals of Temperature, Precipitation and Heating and Cooling Degree Days.

Seasonal Normals for Moline Quad City International Airport

	Winter	Spring	Summer	Fall	Annual
Average Temperature	25.4	50.8	73.5	52.9	50.7
Probability of Precipitation	5.3%	10.8%	13.30%	8.6%	38.0%

Source: National Oceanic & Atmospheric Administration. National Environmental Satellite, Data, and Information Service. Moline Quad City International Airport Station. 1981-2010 Station Normals of Temperature, Precipitation and Heating and Cooling Degree Days.

Communications

There are multiple media communications within the greater Quad Cities Area that serve Scott County from print media, radio, and television, both network and cable. The table below highlights the main media.

Newspapers	Radio Stations	Local TV Stations
The Quad City Times (Davenport, IA)	30 FM Stations	CH 4: –WHBF/CBS – Rock Island
The Dispatch / The Rock Island Argus (Moline, IL)	6 AM Stations	CH 6: KWQC/NBC Davenport
Star Courier (Kewanee, IL)		CH 8: WQAD/ABC Moline
The North Scott Press (Eldridge, IA)		CH 18: KLJB/FOX Davenport
Aledo Times-Record (Aledo, IL)		CH24: WQPT PBS-Moline
The River Cities Reader (Davenport, IA)		CH:26: WBQD-LP - Davenport
		CH 26: KQIN/IPTV Davenport

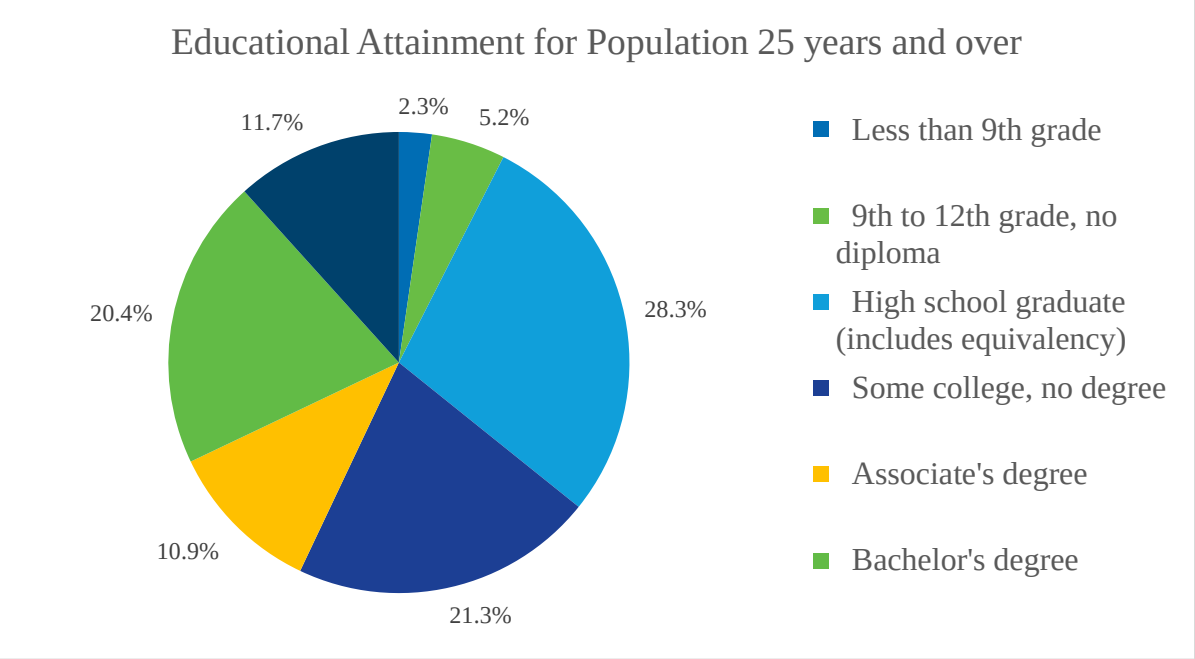
Education

Nearly 62% of the population in Scott County 25 years and over has attained at least a high school education, as shown in the following table and figure. 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.

Scott County Educational Attainment for the Population 25 years and over	
Population 25 and over	114,193
Less than 9th Grade	2,570
9th to 12th grade (no diploma)	5,893
High School Graduate (included equivalency)	32,303
Some college, no degree	24,283
Associate's Degree	12,490
Bachelor's Degree	23,304
Professional or Graduate Degree	13,350
Percent High School Graduate or Higher	92.6%
Percent Bachelor's Degree or Higher	32.1%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates 2011-2015.

Figure 3-5
Educational Attainment in Scott County (2015)



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Labor Force, Economy, and Employment

The largest employer in the metropolitan area is the Rock Island Arsenal. While located in Rock Island County, Illinois, it employs residents living in Scott County. In Scott County, Genesis Health Systems, Hy-Vee, and the Davenport School District are the top three employers located at multiple sites. These top employers are followed by Arconic, formerly Alcoa, and Oscar Mayer Foods Corporation. Manufacturing is the largest sector employer.

Figure 3-6
Labor Force 2010-2015

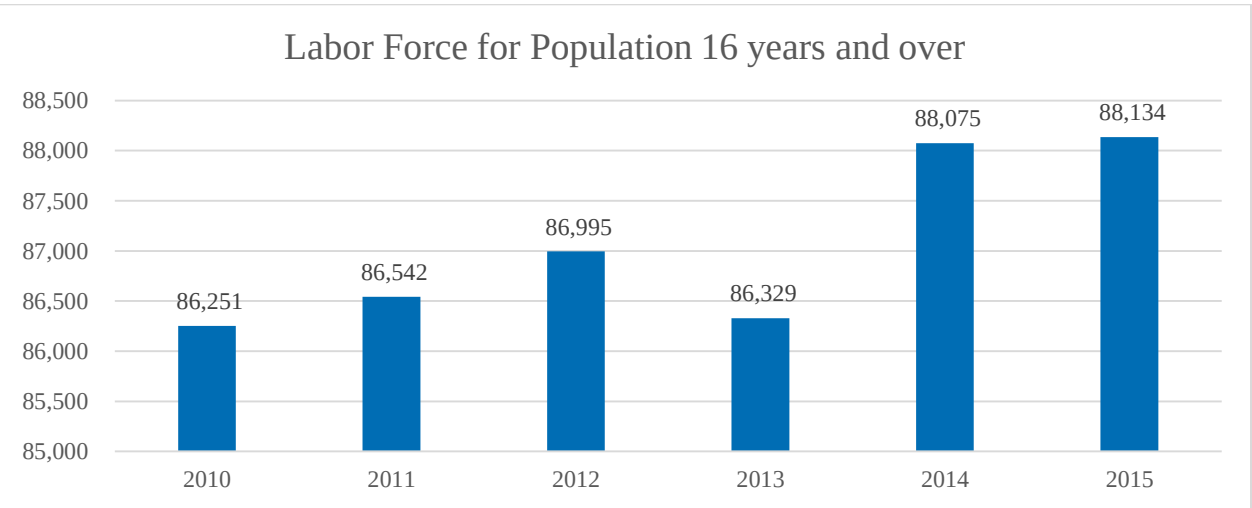
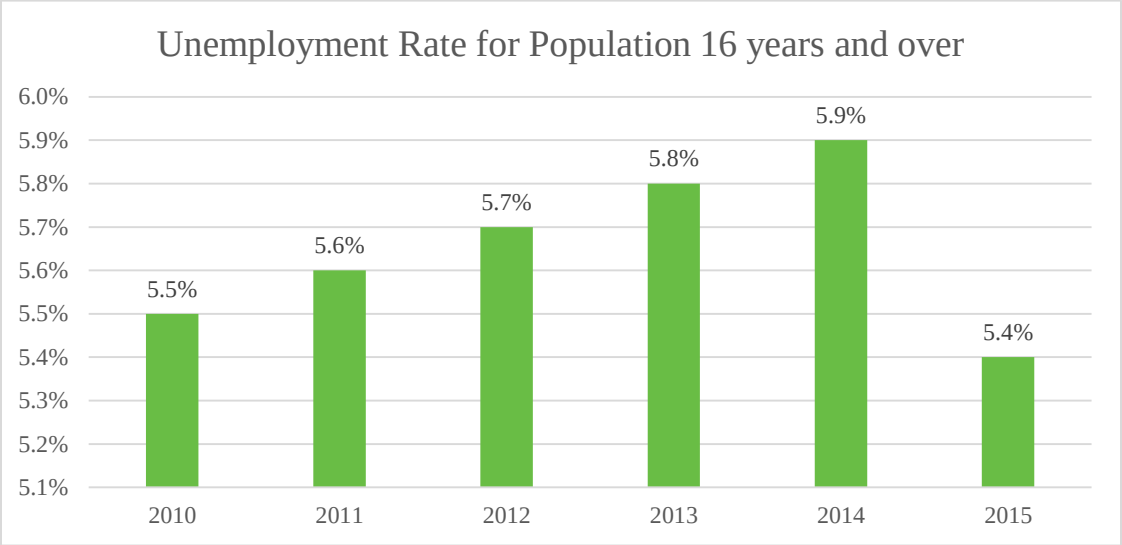
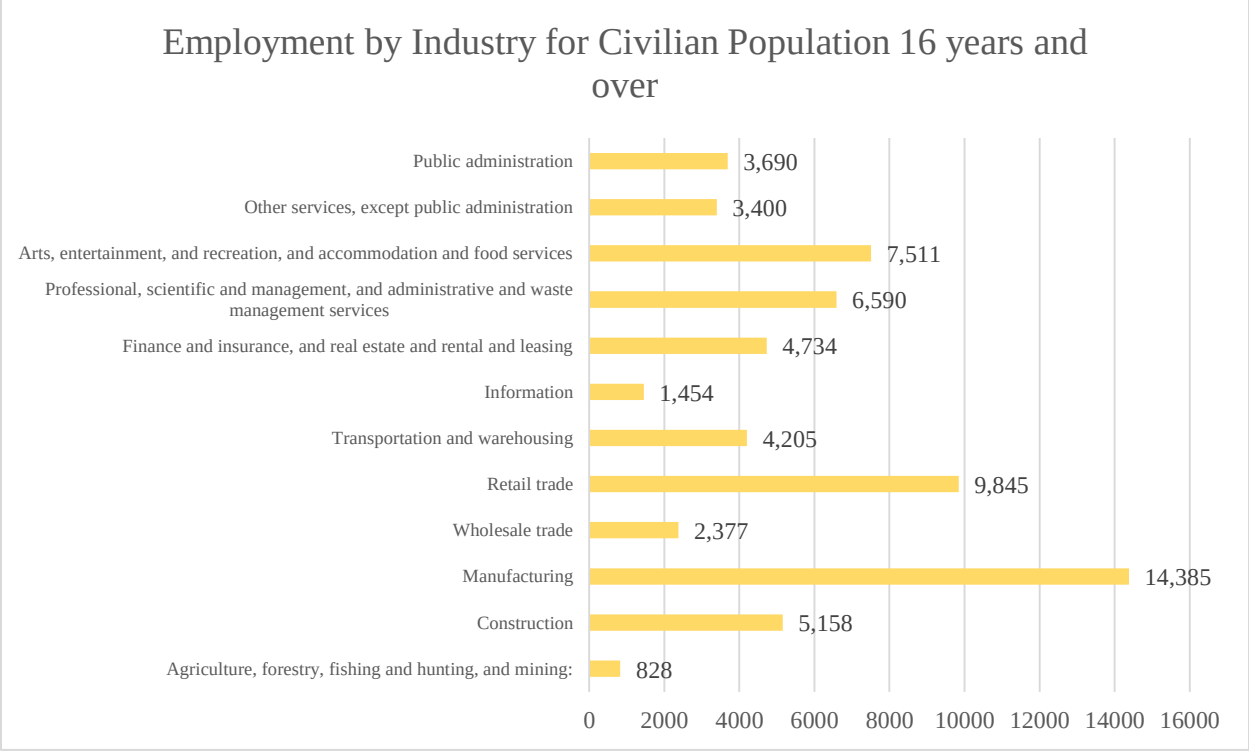


Figure 3-7
Unemployment Rate 2010-2015



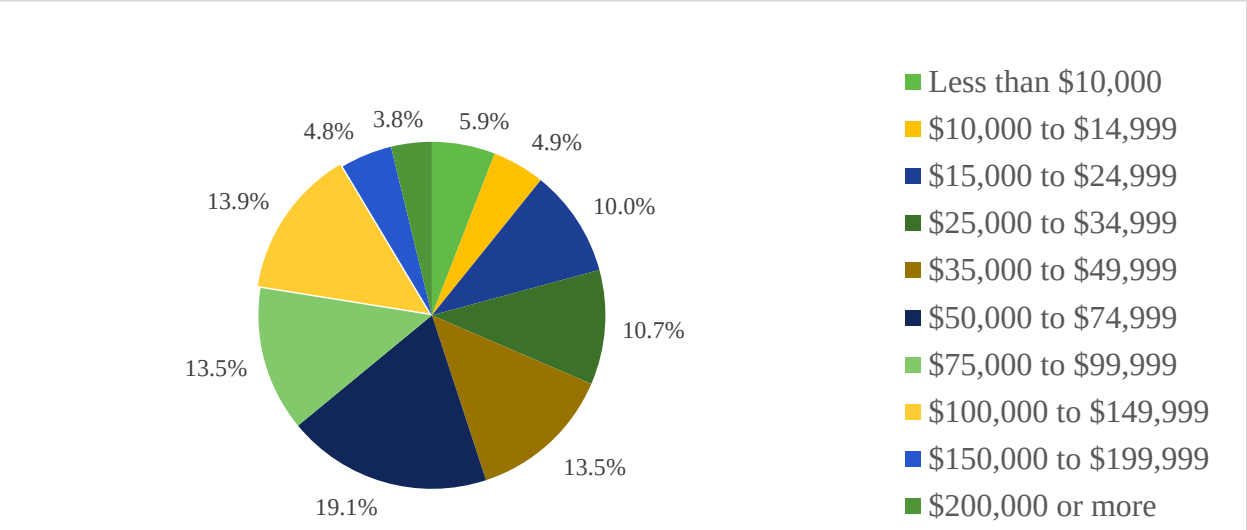
Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2006-2015.

Figure 3-8
Employment by Industry



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Figure 3-9
Household Income (2015)



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Top 10 Employers in Scott County, IA		
Employer	Rank	Employees
Genesis Health Systems	1	4,805
Hy-Vee (all Scott Co locations)	2	3,054
Davenport Community School District	3	2,279
Arconic (Alcoa Inc)	4	2,194
Oscar Mayer Foods Corp	5	1,600
Tri City Communications	6	1,100
Isle Casino Hotel Bettendorf	7	1,000
Walmart (all Scott Co locations)	8	992
City of Davenport	9	959
John Deere Davenport Works	10	838

Source: Infogroup, ReferenceUSA GOV and Individual Employers. Data Compiled by Bi-State Regional Commission December 2015 - Spring 2016
Note: Data provided is derived from multiple sources with varying levels of accuracy.

Geography and Land Use

Scott County is located in eastern Iowa where Interstate 80 crosses the Mississippi River. The county is bordered by the Wapsipinicon River and Clinton County, Iowa to the north, the Mississippi River and Rock Island County, Illinois, on the east and south, Muscatine County, Iowa on the southwest, and Cedar County, Iowa on the west. Davenport is the largest city and the county seat.

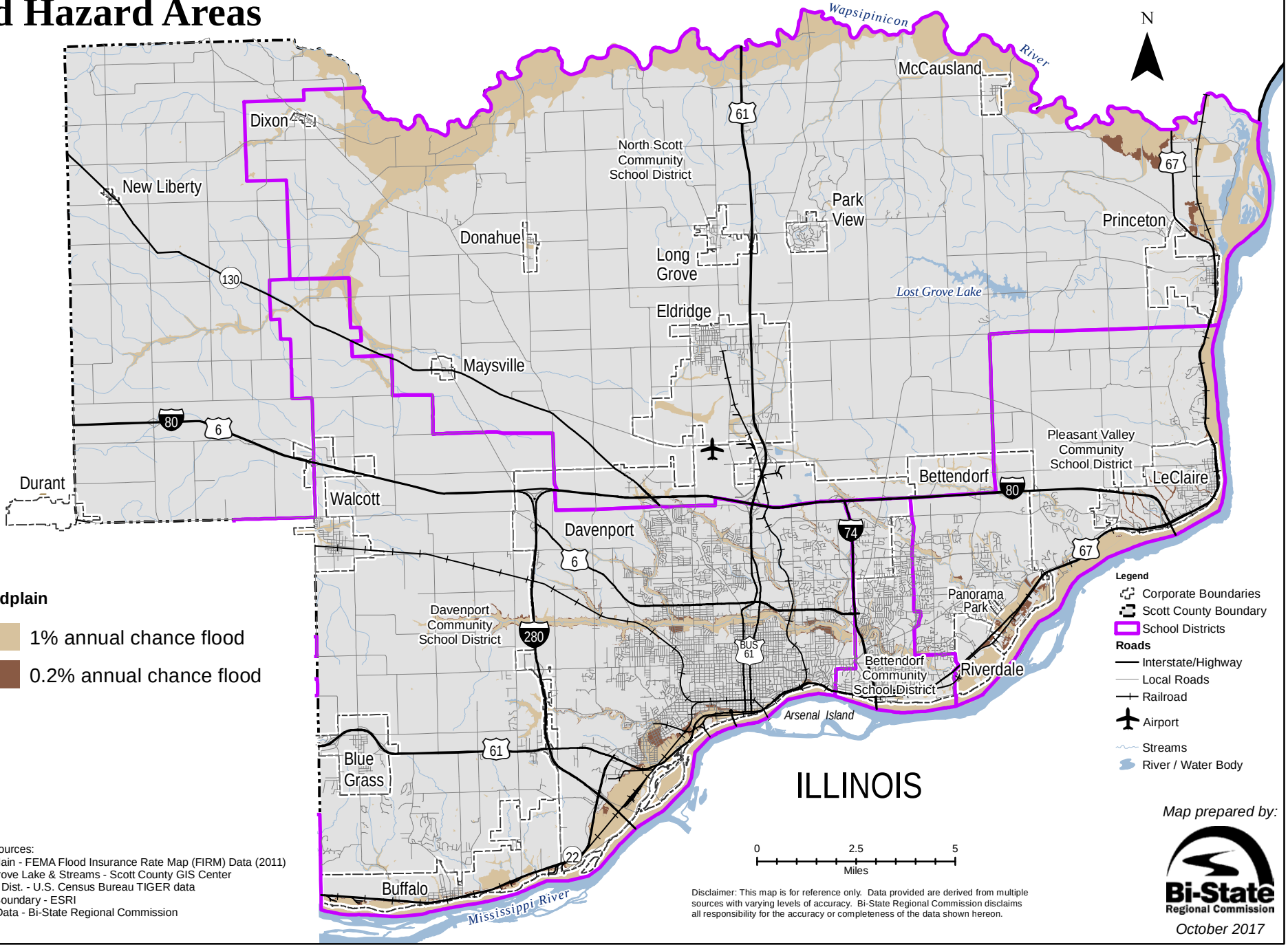
The soils in Scott County are nearly level to steeply sloping. The topography of the uplands along the Mississippi River has steep side slopes and flat narrow foot slopes with alluvial bottomlands formed in alluvium. A river terrace parallels the Wapsipinicon River, and the

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, but 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 3-7 shows existing land use in Scott County.

Map 3-9

Flood Hazard Areas



Data Sources:
Floodplain - FEMA Flood Insurance Rate Map (FIRM) Data (2011)
Lost Grove Lake & Streams - Scott County GIS Center
School Dist. - U.S. Census Bureau TIGER data
State Boundary - ESRI
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

October 2017

Housing

The following tables provide information on housing units in Scott County, as well as the years structures were built, and home ownership. Home heating information is also noted.

Units in Structure		
Total Housing Units	72,800	
1-unit detached	50,315	69.1%
1-unit attached	2,688	3.7%
2 units	2,420	3.3%
3 to 4 units	2,513	3.5%
5 to 9 units	4,266	5.9%
10 or more units	8,627	11.9%
Mobile home	1,962	2.7%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Year Structure Built		
Year	Housing Units	Percent
2014 or later	94	0.1%
2010 to 2013	1,319	1.8%
2000 to 2009	8,167	11.2%
1980 to 1999	12,486	17.1%
1960 to 1979	21,652	29.7%
1940 to 1959	15,911	14.8%
1939 or earlier	13,171	21.9%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Home Ownership and Median Rent	
Occupied Housing Units	$67,709
Specified Owner Occupied Units	$46,076
Median Value of Owner Occupied Units	$148,200
Specified Renter Occupied Units	$21,633
Median Rent	$715

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

House Heating Fuel		
Total	67,709	
Utility Gas	51,994	76.8%
Bottled, Tank, or LP Gas	3,315	4.9%
Electricity	11,235	16.6%
Fuel oil, Kerosene, etc.	183	0.3%
Coal or Coke	13	0.0%
Wood	218	0.3%
Solar Energy	0	0.0%
Other Fuel	371	0.5%
No Fuel Used	380	0.6%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Infrastructure

Scott County is traversed by three 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. These five crossings carry a total of 173,900 average annual vehicles per day.

There are two airports in the Quad Cities Area: The Quad City International Airport for commercial aviation and the Davenport Municipal Airport for general aviation. The Quad City International Airport, located in Moline, Illinois is the regional airport for Western Illinois and Eastern Iowa. It serves the area with dozens of daily flights and non-stop service to eleven destinations, connecting to multiple national and international destinations. There are two air freight carriers currently at the Quad City International Airport. General aviation needs are met privately by Elliott Aviation in Moline and publically by the Davenport Municipal Airport in Davenport, Iowa. The Davenport Municipal Airport provides vital connections to businesses and their customers.

Currently, there are three rail companies operating in Scott County, the Burlington Northern Santa Fe (BNSF), 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 (BNSF) and Government Bridge (IAIS).

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/passenger ferry 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 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.

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 Cities 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 first settled in 1833 was 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 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.

Medical and Healthcare

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

Demographics

This plan utilized the newest Census data that was available at the time complied. The individual jurisdiction profiles were updated for the summary below and in the section for each jurisdiction using the American Community Survey 5-year estimates (2011-2015).

The following tables highlight characteristics of the people living in Scott County, Iowa. They include population, age, race, ethnicity, household type, and population change.

Population		
Total	169,994	
Male	83,437	49.1%
Female	86,557	50.9%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Age		
	Number	Percent
Under 5 years	11,312	6.7%
5 to 14	22,942	13.5%
15 to 19	11,028	6.5%
20 to 34	33,826	19.9%
35 to 54	44,767	26.3%
55 to 64	22,288	13.2%
65 to 84	20,161	11.8%
85 +	3,670	2.2%
Median Age	37.6	

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Race		
	Number	Percent
White alone	146,516	86.2%
Black or African American alone	13,115	7.7%
American Indian and Alaskan Native alone	434	0.3%
Asian alone	3,892	2.3%
Native Hawaiian and Other Pacific Islander alone	16	0.0%
Some other race	1,679	1.0%
Two or more races	4,342	2.6%
Hispanic Ethnicity (of any race)	10,394	6.1%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

Households by Type		
	Number	Percent
Total Households	67,709	100.0%
Family Households	42,662	63.0%
With own children under 18 years	19,194	28.4%
Married couple family	32,896	48.6%
With own children under 18 years	12,727	18.8%
Male householder, no wife present	2,434	3.6%
With own children under 18 years	1,606	2.4%
Female householder, no husband present	7,332	10.8%
With own children under 18 years	4,861	7.2%
Non-Family Households	25,047	37.0%
Householder Living alone	20,589	30.4%
Householder 65 years and over	4,458	6.6%
Average Household Size		2.46 persons
Average Family Size		3.11 persons

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

	1960	1970	1980	1990	2000	2015	% of the County Population	% Change 1960 - 2015
Scott County	119,067	142,687	160,022	150,973	158,668	169,994	100.00%	42.8%
City of Bettendorf	10,534	22,126	27,381	28,139	31,275	34,663	20.4%	229.1%
City of Blue Grass	568	1,032	1,377	1,214	1,169	1,439	0.8%	153.3%
City of Buffalo	1,088	1,513	1,441	1,250	1,321	1,217	0.7%	11.9%
City of Davenport	88,981	98,469	103,264	95,333	98,359	101,863	59.9%	14.5%
City of Dixon	280	276	312	228	276	225	0.1%	-19.6%
City of Donahue	133	216	289	316	293	366	0.2%	175.2%
City of Eldridge	583	1,535	3,279	3,378	4,159	6,017	3.5%	932.1%
City of LeClaire	1,546	2,520	2,899	2,734	2,847	3,888	2.3%	151.5%
City of Long Grove	182	269	596	605	597	894	0.5%	391.2%
City of McCausland	173	226	381	308	299	338	0.2%	95.4%
City of Maysville	126	170	151	170	163	139	0.1%	10.3%
City of New Liberty	145	141	136	139	121	148	0.1%	2.1%
City of Panorama Park	140	219	145	127	111	102	0.1%	-27.1%
City of Princeton	580	633	965	904	946	1,106	0.7%	90.7%
City of Riverdale	477	684	462	419	656	476	0.3%	-0.2%
City of Walcott	664	989	1,425	1,356	1,528	1,575	0.9%	137.2%
Unincorporated Area	12,967	11,669	15,519	14,349	14,548	15,538	9.1%	19.8%

Source: U.S. Census Bureau, Decennial Census 1950 - 2000; U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015.

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 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 & Giant Screen Theater; Modern Woodmen Park, home of 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.

Assessing Vulnerability: Identifying Structures

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

	Police Department	Fire Department
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	Local Groundwater Sources	Private Water Source
Bettendorf *			X
Blue Grass		X	
Buffalo		X	
Davenport *			X
Dixon		X	
Donahue		X	
Eldridge	X		
LeClaire *			X
Long Grove		X	
McCausland			X
Maysville		X	
New Liberty		X	
Panorama Park *			X
Princeton		X	
Riverdale *			X
Walcott		X	

* 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	
McCausland			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

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 3-8.

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	11,312	6.7%
Total Population over 65 years	23,831	13.8%
Total Persons with a Disability (all age groups)	17,342	10.3%
Total Population 5 years and over that speak English "less than very well"	3,335	2.1%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2011-2015

Economic Elements

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

- Major Employers (see table for major employers 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.

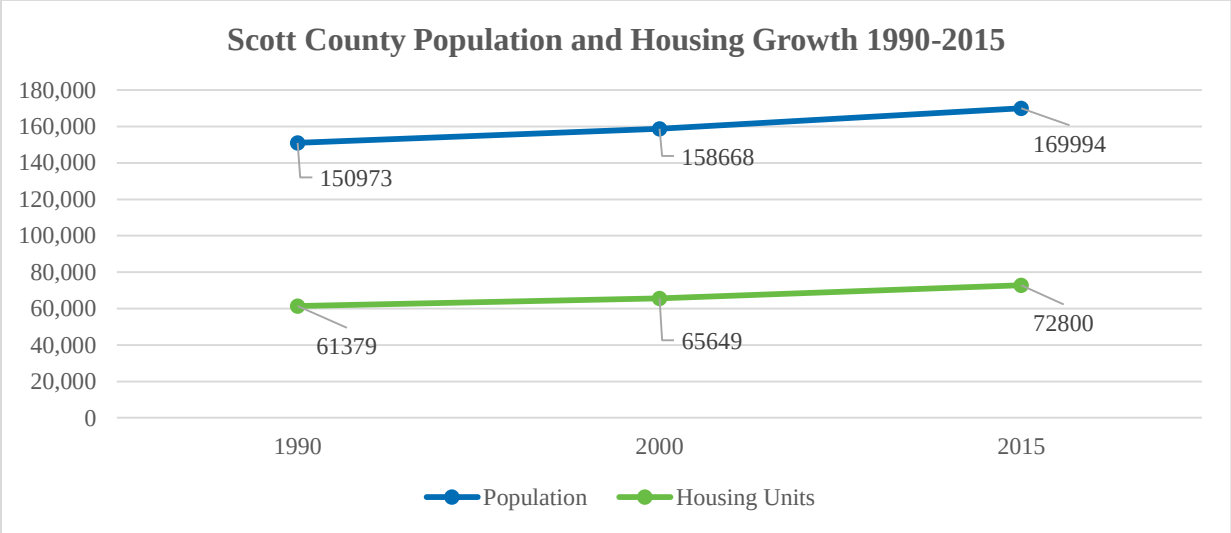
- Government Functions and Facilities
- U.S. Army Facilities
- U.S. Army Reserve Center
- Iowa Army National Guard
- Iowa Army Aviation
- Major Employers
- Banks
- Establishments that provide essential day-to-day needs (i.e. grocery stores, gas stations, pharmacies, and hardware stores)

Assessing Vulnerability: Analyzing 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 12.6% (19,021), while the housing units have increased by 18.6% (11,421). Figure 3-10 (Scott County Population and Housing Growth 1990-2015) shows the change in population and housing units in more detail.

Figure 3-10



Source: U.S. Census Bureau, Decennial Census 1990 and 2000; American Community Survey, 5-year estimates, 2011-2015.

Residential building permits also reflect the growth of housing units in Scott County. An average of 358 single-family units and an average of 124 multi-family units have been built per year since 2006. In the past few years, private residential building permits have declined, but it still shows there is a need within the county. Table 3-8 shows the residential building permits by year.

Table 3-8
Scott County Privately Owned Residential Building Permits

Year	Single-Family		Multi-Family		Total	
	Buildings	Units	Buildings	Units	Buildings	Units
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
2010	304	304	9	113	313	417
2011	428	428	5	45	433	473
2012	381	381	1	60	382	441
2013	371	371	2	16	373	387
2014	331	331	7	34	338	365
2015	319	319	11	157	330	476
2016	363	363	8	130	371	493

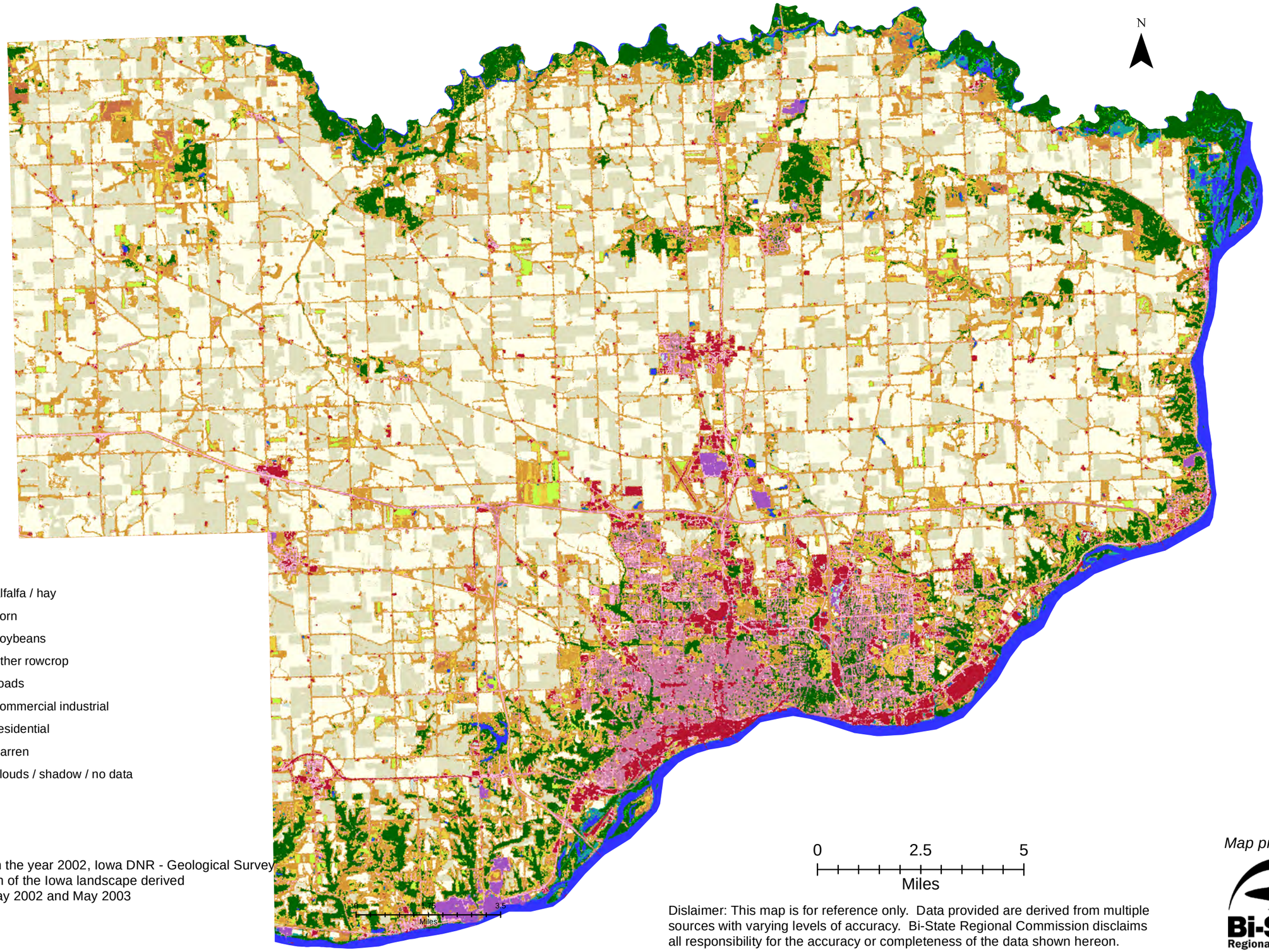
Source: U.S. Census Bureau - Manufacturing, Mining, and Construction Statistics; Annual Building Permits

The following table provides a summary of how development has occurred in the planning area between 2006 and 2016. The table shows how many building permits have been issued within a given geography. This table only includes hazards that have a geographically defined hazard area. The "Total New Structures" column depicts overall development that would increase exposure for hazards such as windstorms, earthquakes, and winter storms that equal probability of occurring over the entire planning area.

Number of New Structures in Each Community by Geographically Defined Hazard Areas (2006-2016)					
Community	Floodplain 1%	Floodplain 0.2%	Karst	Levee Protected	Total New Structures
Bettendorf	59	5	497	5	1699
Blue Grass	0	0	0	0	95
Buffalo	2	1	10	0	15
Davenport	44	15	61	0	2536
Dixon	0	0	3	0	4
Donahue	1	0	1	0	14
Eldridge	29	0	10	0	456
LeClaire	20	8	256	0	531
Long Grove	0	0	0	0	17
McCausland	0	0	0	0	4
Panorama Park	0	0	0	0	10
Princeton	3	0	53	0	61
Riverdale	1	2	2	0	4
Walcott	1	0	1	0	25
Scott Co	10	1	37	0	356
Total	170	32	931	5	5827

Map 3-10

Land Cover



Legend

- unclassified
- water
- wetland
- bottomland forest
- coniferous forest
- deciduous forest
- ungrazed grassland
- grazed grassland
- planted grassland
- alfalfa / hay
- corn
- soybeans
- other rowcrop
- roads
- commercial industrial
- residential
- barren
- clouds / shadow / no data

Data Sources:
Land Cover of the State of Iowa in the year 2002, Iowa DNR - Geological Survey
Land cover/Land use classification of the Iowa landscape derived
from satellite imagery between May 2002 and May 2003

0 2.5 5
Miles

Dislaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

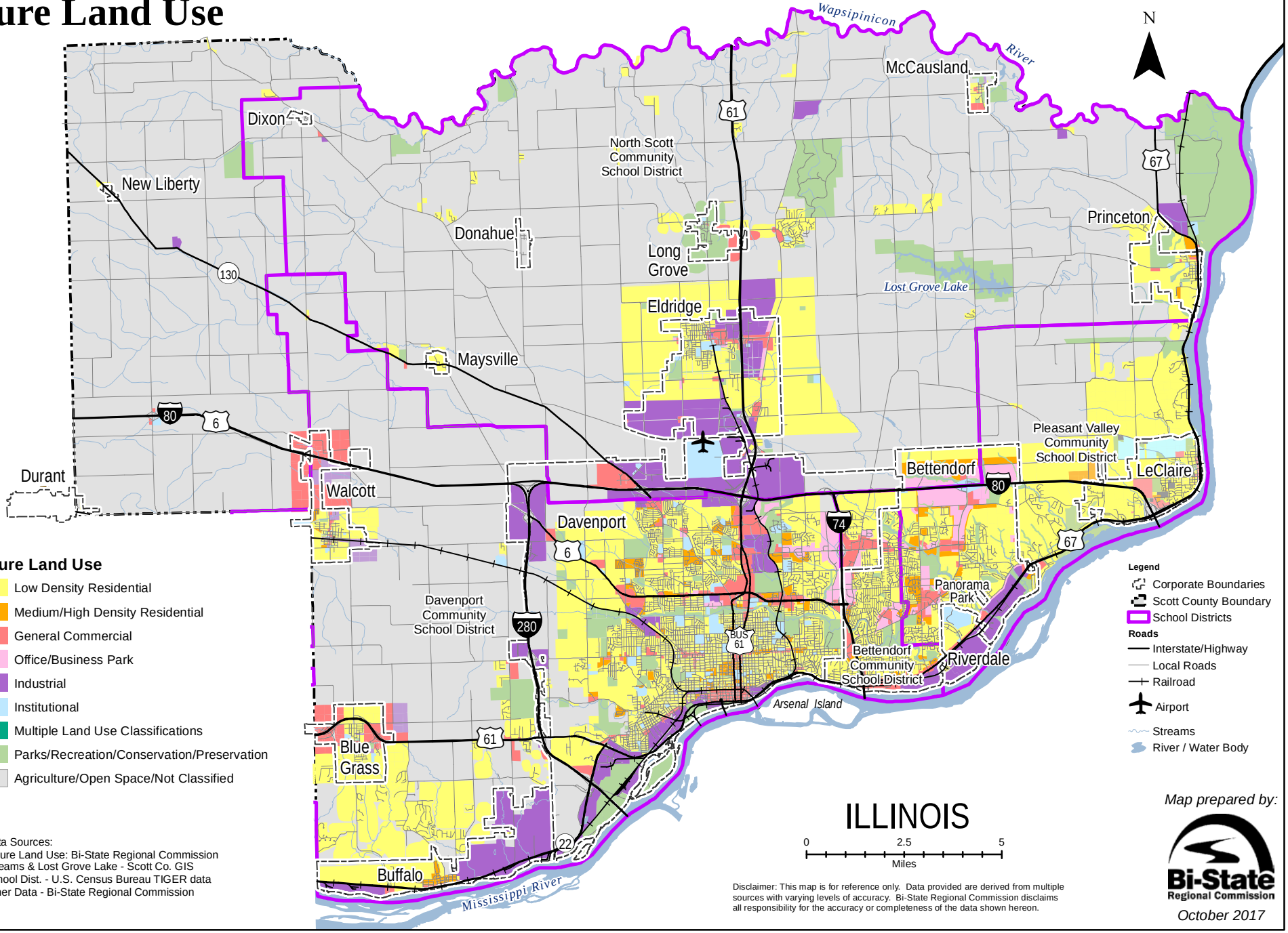
Map prepared by:

Bi-State Regional Commission

October 2017

Map 3-11

Future Land Use



Data Sources:
Future Land Use: Bi-State Regional Commission
Streams & Lost Grove Lake - Scott Co. GIS
School Dist. - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

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Map prepared by:

Bi-State Regional Commission

October 2017

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 Map 3-7 and Map 3-10 for more details.

Future Land Use

Map 3-11 shows future land uses proposed within Scott County. There is a significant increase in industrial future land use areas expected. Manufacturing has been the historical base of Scott County, and it will continue into the future. An industrial expansion is planned for northern Davenport, IA and southern Eldridge, IA along I-80 as well as along Highway 61 in Eldridge. Recent activity includes the relocation of Kraft Foods North America and siting of a new Sterlite facility. As part of the Eastern Iowa Industrial Center, a transload freight facility has been constructed. There are already plans for an expansion of this freight facility. The Davenport Municipal Airport serves as a general aviation facility in this area, providing air service, in addition to highway and rail transportation in this area of Scott County. The City of Buffalo also has industrial expansion planned to the east of the city north of Highway 22. With its multi-modal transportation assets, Scott County has opportunities for freight logistics, both in the agricultural and manufacturing sectors.

Commercial expansions are planned in the Cities of Blue Grass and Walcott. The City of Bettendorf has areas along I-74 and the northern city boarder to expand office areas. A regional sports complex is being located at Middle Road and I-74. The Davenport riverboat casino moved from the river to north Davenport, south of I-80. Low-density residential growth is expected in the northern portions of the Iowa Quad Cities, Blue Grass, Buffalo, Eldridge, and LeClaire. In the rural communities, intermittent residential growth on a smaller scale is envisioned, or retaining quality bedroom communities.

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	Y
Davenport	Y	Y	Y
Dixon	N	N	N
Donahue	N	Y	N
Eldridge	Y	Y	Y
LeClaire	Y	Y	Y

	Proposed Commercial Development	Proposed Residential Development	Other Land Use Changes
Long Grove	N	Y	N
Maysville	N	N	N
Panorama Park	N	N	N
Princeton	N	N	N
Riverdale	N	Y	N
Walcott	Y	Y	N

Financial Capabilities

All participating jurisdictions in this plan have taxing authority either as a governmental entity or school district. Communities such as Davenport and Bettendorf prepare five-year comprehensive capital improvement programs. Scott County also prepares a five-year capital improvement plan as part of its annual budget process. Some communities develop strategic plans and have capital improvement projects lists, where they set aside funds for more costly projects beyond operations and maintenance. All cities and the county must submit a budget to the state before March 15 for the fiscal year beginning July 1 and ending the following June 30, in accordance with Iowa Code, and are available on the Iowa Department of Management website by fiscal year. School districts report financial data required by Iowa Code annually through the Department of Education, by September 15 each year. Revenue sources to support hazard mitigation may include existing general funds, TIF district funds, bonds, grants, or loans.

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 3-8, and hazard priorities. Each of the jurisdictions was ranked on population size and land area based on Scott County. The individual jurisdiction profiles have 2015 Census population estimates. Appendix II-5 includes a table with the populations of Scott County from 1950 to 2015 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

2010 Census Population: 32,490
2015 ACS Population Estimate: 34,663
2021 Population Projection: 37,719
Percent Change (2010-2015): 6.7%
Percent Change (2010-2021): 16.1%
County Rank in Population: 2
Land Area: 21.217 square miles
County Rank in Land Area: 3

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 2015 Comprehensive Plan, Bettendorf is primarily residential (47%). The rest of the city is classified as commercial (10%), park and open space (10%), public (7%), and industrial (5%). 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 3-1). 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 that 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 $16.3 M. 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

- 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 220 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 3-8.

Hazard Priorities

Following the hazard scoring process, the Bettendorf Hazard Mitigation Committee scored the hazards as shown in Table 3-4 and Table 3-5. The city participates in the National Flood Insurance Program to mitigate flood hazards and will continue to do so. Levee failure is important for Bettendorf 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. 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Thunderstorm, Lightning, Hail
Flash Flood
Windstorm
Grass and Wildland Fires
Levee Failure
Severe Winter Storm
Extreme Heat
River Flood
Tornado
Drought
Earthquake
Landslide/Sinkhole
Dams
Expansive Soils

City of Blue Grass

Overview

2010 Census Population: 1,382
2015 ACS Population Estimate: 1,483
2021 Population Projection: 1,621
Percent Change (2010-2015): 4.1%
Percent Change (2010-2021): 17.3%
County Rank in Population: 7
Land Area: 2.887 Square Miles
County Rank in Land Area: 8

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.

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 effect 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 and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Tornado
Windstorm
Severe Winter Storm
Thunderstorm, Lightning, Hail
Grass and Wildland Fires
Drought
Extreme Heat
Flash Flood
Earthquake
Dams
Expansive Soils
Landslide/Sinkhole
Levee Failure
River Flood

City of Buffalo

Overview

2010 Census Population: 1,244
2015 ACS Population Estimate: 1,217
2021 Population Projection: 1,452
Percent Change (2010-2015): -2.2%
Percent Change (2010-2021): 16.7%
County Rank in Population: 8
Land Area: 6.445 square miles
County Rank in Land Area: 5

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 "Sinkholes and Land Subsidence" hazard profile.

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 21 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 3-8. 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 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Landslide/Sinkhole
Windstorm
River Flood
Thunderstorm, Lightning, Hail
Tornado
Severe Winter Storm
Extreme Heat
Grass and Wildland Fires
Flash Flood
Drought
Expansive Soils
Levee Failure
Dams
Earthquake

City of Davenport

Overview

2010 Census Population: 98,325
2015 ACS Population Estimate: 101,863
2021 Population Projection: 107,837
Percent Change (2010-2015): 3.6%
Percent Change (2010-2021): 9.7%
County Rank in Population: 1
Land Area: 62.948 Square Miles
County Rank in Land Area: 2

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 57 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, five 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 3-8. Also included in the map are vulnerable populations, medical facilities, economic assets, and historical, cultural, and natural resources. Vulnerable populations include high-density residential areas, nursing and assisted living homes, schools, and mobile home parks. Three mobile home parks have at least a portion of their facility located within the Special Flood Hazard Area (SFHA). This is down from five in 2012. One mobile home park has mitigation in place, and the other two have some partial mitigation in place. An unknown number of filling stations (including convenience stores) are also located within the SFHA. Five critical facilities, a total of seven areas of vulnerable populations, five 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 eight other important building are located within the 0.2% floodplain.

Hazard Priorities

Creeks within the City of Davenport are susceptible to flash floods, in particular along Duck Creek that 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 affect not only Davenport, but the entire county. Severe winter storms, thunderstorm and 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.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Flash Flood
Thunderstorm, Lightning, Hail
Windstorm
Severe Winter Storm
River Flood
Tornado
Grass and Wildland Fires
Earthquake
Extreme Heat
Expansive Soils
Landslide/Sinkhole
Levee Failure
Dams
Drought

City of Dixon

Overview

2010 Census Population: 241
2015 ACS Population Estimate: 225
2021 Population Projection: 261
Percent Change (2010-2015): -6.6%
Percent Change (2010-2021): 8.3%
County Rank in Population: 14
Land Area: 0.148 Square Miles
County Rank in Land Area: 15

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 3-8. 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 and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Severe Winter Storm
Windstorm
Tornado
Dams
Drought
Earthquake
Expansive Soils
Extreme Heat
Flash Flood
Grass and Wildland Fires
Landslide/Sinkhole
Levee Failure
River Flood
Thunderstorm, Lightning, Hail

City of Donahue

Overview

2010 Census Population: 366
2015 ACS Population Estimate: 366
2021 Population Projection: 382
Percent Change (2010-2015): 0%
Percent Change (2010-2021): 4.4%
County Rank in Population: 12
Land Area: 0.346 square miles
County Rank in Land Area: 13

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 3-8. Donahue has one historic/cultural structure in the 1% floodplain.

Hazard Priorities

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 and lightning due to their frequency and larger effect 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 4 of this plan.

2017 Ranked Hazards
Thunderstorm, Lightning, Hail
Grass and Wildland Fires
Windstorm
Severe Winter Storm
Drought
Flash Flood
River Flood
Tornado
Extreme Heat
Dams
Levee Failure
Earthquake
Expansive Soils
Landslide/Sinkhole

City of Eldridge

Overview

2010 Census Population: 5,319
2015 ACS Population Estimate: 6,017
2021 Population Projection: 6,839
Percent Change (2010-2015): 13.1%
Percent Change (2010-2021): 28.6%
County Rank in Population: 4
Land Area: 9.482 square miles
County Rank in Land Area: 4

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 (2011), Eldridge is primarily agricultural (72.69%). The remainder of the city is defined as low-density residential (11.07%), high-density residential (1.55%), commercial (1.55%), heavy industrial (4.05%), light industrial (2.67%), recreational (3.27%), and commercial (1.83%). 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 34 community assets within the city. The critical facilities include City Hall, 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 3-8. Eldridge has one critical facility in the 1% floodplain.

Hazard Priorities

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 and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Windstorm
Tornado
Thunderstorm, Lightning, Hail
Extreme Heat
Severe Winter Storm
Drought
Earthquake
Grass and Wildland Fires
Flash Flood
Expansive Soils
Dams
Landslide/Sinkhole
Levee Failure
River Flood

City of LeClaire

Overview

2010 Census Population: 3,561
2015 ACS Population Estimate: 3,888
2021 Population Projection: 4,370
Percent Change (2010-2015): 9.2%
Percent Change (2010-2021): 22.7%
County Rank in Population: 5
Land Area: 4.669 Square Miles
County Rank in Land Area: 6

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 2012 Comprehensive Plan, the majority of LeClaire's existing developed land use is low-density residential. Commercial development is located mainly in the downtown Central Business District (CBD) along U.S. 67, as well as south on U.S. 67. Agricultural or unclassified land makes up approximately two-thirds of the community. The 2012 Comprehensive Plan identifies 75.35% of proposed future land use as low-density residential.

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 3-8. 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 understands the importance of utilizing traffic calming measures and pretreatment of roadways prior to storms to help lessen the likelihood of a traffic incident. The city also looked at hazards such as windstorm, thunderstorm and lightning, and severe winter storms. These hazards occur more frequently and can affect residents. The city understands the importance of educating residents about tree health, snow removal policies, and shelter locations to lessen the effects during hazard events. The city will identify critical facilities where backup generators could be installed, limiting the effect 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Windstorm
Severe Winter Storm
Thunderstorm, Lightning, Hail
Tornado
Grass and Wildland Fires
Extreme Heat
Flash Flood
Levee Failure
River Flood
Dams
Landslide/Sinkhole
Earthquake
Drought
Expansive Soils

City of Long Grove

Overview

2010 Census Population: 948
2015 ACS Population Estimate: 894
2021 Population Projection: 884
Percent Change (2010-2015): -5.7%
Percent Change (2010-2021): -6.8%
County Rank in Population: 10
Land Area: 1.018 square miles
County Rank in Land Area: 11

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, civic center, and Wellhouse-Shulz Park. An elementary school has been identified as a vulnerable population. These can be seen on Map 3-8. There are no assets within the floodplain.

Hazard Priorities

The City of Long Grove recognizes the importance of keeping building codes current, which aids in limiting the effect of certain hazards like tornados and structural fire. Hazards such as severe winter storms, windstorm, and thunderstorm and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Severe Winter Storm
Windstorm
Thunderstorm, Lightning, Hail
Tornado
Drought
Earthquake
Extreme Heat
Grass and Wildland Fires
Dams
Flash Flood
Expansive Soils
Landslide/Sinkhole
Levee Failure
River Flood

City of Maysville

Overview

2010 Census Population: 231
2015 ACS Population Estimate: 139
2021 Population Projection: 200
Percent Change (2010-2015): -39.8%
Percent Change (2010-2021): -13.4%
County Rank in Population: 15
Land Area: 0.267 square miles
County Rank in Land Area: 14

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 3-8. There are no assets within the floodplain.

Hazard Priorities

The city focused on hazards such as severe winter storms and energy failure. These hazards happen frequently within the city and can affect 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 of Maysville's mitigation actions are listed in Chapter 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Thunderstorm, Lightning, Hail
Grass and Wildland Fires
Severe Winter Storm
Drought
Windstorm
Extreme Heat
Earthquake
Expansive Soils
Tornado
Dams
Flash Flood
Landslide/Sinkhole
Levee Failure
River Flood

City of McCausland (Non-Participating)

Each community in Scott County was invited to participate in this plan update. McCausland chose not to participate, therefore, other than census information, the information below is carried forward from the *Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*.

Overview

2010 Census Population: 234
2015 ACS Population Estimate: 338
2021 Population Projection: 260
Percent Change (2010-2015): 44.4%
Percent Change (2010-2021): 11.1%
County Rank in Population: 13
Land Area: 0.543 Square Miles
County Rank in Land Area: 12

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 as economic assets. These can be seen on Map 3-8. 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 has joined the National Flood

Insurance Program and understands the importance of educating their residents about the floodplain. Hazards such as thunderstorms and lightning and windstorms occur frequently within the city, often causing 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 affect all residents, so the city will take a proactive approach by pretreating roads and educating their residents about snow removal policies. The City of McCausland's mitigation actions are listed in Chapter 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2012 Ranked Hazards
Tornado
River Flood
Flash Flood
Grass and Wildland Fires
Extreme Heat
Levee Failure
Thunderstorm, Lightning, Hail
Windstorm
Drought
Severe Winter Storm
Landslide/Sinkhole
Expansive Soils
Dams
Earthquake

City of New Liberty (Non-Participating)

Each community in Scott County was invited to participate in this plan update. New Liberty chose not to participate, therefore, other than census information, the information below is carried forward from the *Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012*.

Overview

2010 Census Population: 150
2015 ACS Population Estimate: 148
2021 Population Projection: 136
Percent Change (2010-2015): -1.3%
Percent Change (2010-2021): -9.3%
County Rank in Population: 16
Land Area: 0.095 square miles
County Rank in Land Area: 16

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 3-8. There are no assets within the floodplain.

Hazard Priorities

After reviewing their weighted hazard scores as shown in Table 3-4 of this chapter, the City of New Liberty determined the top 12 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 and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2012 Ranked Hazards
Thunderstorm, Lightning, Hail
Extreme Heat
River Flood
Severe Winter Storm
Windstorm
Tornado
Earthquake
Grass and Wildland Fires
Landslide/Sinkhole
Dams
Drought
Expansive Soils
Flash Flood
Levee Failure

City of Panorama Park

Overview

2010 Census Population: 139
2015 ACS Population Estimate: 102
2021 Population Projection: 167
Percent Change (2010-2015): -26.6%
Percent Change (2010-2021): 20.1%
County Rank in Population: 17
Land Area: 0.054 Square Miles
County Rank in Land Area: 17

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 participates in the National Floodplain Insurance Program and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Thunderstorm, Lightning, Hail
Extreme Heat
River Flood
Severe Winter Storm
Windstorm
Flash Flood
Tornado
Earthquake
Grass and Wildland Fires
Landslide/Sinkhole
Drought
Dams
Expansive Soils
Levee Failure

City of Princeton

Overview

2010 Census Population: 966
2015 ACS Population Estimate: 1,106
2021 Population Projection: 1,053
Percent Change (2010-2015): 14.5%
Percent Change (2010-2021): 9.0%
County rank in Population: 9
Land Area: 2.56 square miles
County Rank in Land Area: 9

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 3-8. 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 participates in the National Flood Insurance Program and 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Tornado
River Flood
Flash Flood
Grass and Wildland Fires
Drought
Extreme Heat
Levee Failure
Thunderstorm, Lightning, Hail
Windstorm
Severe Winter Storm
Landslide/Sinkhole
Expansive Soils
Dams
Earthquake

City of Riverdale

Overview

2010 Census Population: 524
2015 ACS Population Estimate: 476
2021 Population Projection: 448
Percent Change (2010-2015): -9.2%
Percent Change (2010-2021): -14.5%
County Rank in Population: 11
Land Area: 1.835 Square Miles
County Rank in Land Area: 10

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. Arconic (f.k.a. 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, comprising 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 holds several million gallons of gasoline and diesel fuel; small commercial and light industry districts; five distinct residential areas; and one 97-acre farm. Arconic, 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, Arconic (f.k.a. ALCOA, Inc.) built a private levee around the plant. When the City of Bettendorf built their Mississippi River levee system, a combination levy/flood wall was 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 to Riverdale's Havens Acres subdivision. In addition, railroad tracks and a small berm south of Wisteria Lane also provide some protection to 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 worker.

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 3-8. None of Riverdale's assets are located within the floodplain.

Hazard Priorities

The City of Riverdale 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 and participates in the National Flood Insurance Program. 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. 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 that 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 lifesaving during a hazard event. The City of Riverdale's mitigation actions are listed in Chapter 4.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
River Flood
Severe Winter Storm
Tornado
Windstorm
Grass and Wildland Fires
Flash Flood
Drought
Thunderstorm, Lightning, Hail
Extreme Heat
Levee Failure
Dams
Landslide/Sinkhole
Expansive Soils
Earthquake

City of Walcott

Overview

2010 Census Population: 1,570
2015 ACS Population Estimate: 1,575
2021 Population Projection: 1,897
Percent Change (2010-2015): 0.3%
Percent Change (2010-2021): 20.8%
County Rank in Population: 6
Land Area: 3.467 Square Miles
Rank in Land Area: 7

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 are two-family and multi-family residential areas within Walcott. The Interstate Highway Commercial District is located north of Wolf Road and spans across I-80 to the northern corporate boundary. Walcott participates in the National Flood Insurance Program. 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 3-8. One critical facility and one other important building are located in the 1% floodplain.

Hazard Priorities

Hazards such as severe winter storm, thunderstorm and 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 are at risk of potential flooding. The City of Walcott's mitigation actions are listed in Chapter 4.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Windstorm
Thunderstorm, Lightning, Hail
Severe Winter Storm
Tornado
Earthquake
Flash Flood
Extreme Heat
Grass and Wildland Fires
Expansive Soils
Landslide/Sinkhole
Drought
Dams
Levy Failure
River Flood

Unincorporated Scott County

Overview

2010 Census Population: 14,494
2015 ACS Population Estimate: 15,538
2021 Population Projection: 16,290
Percent Change (2010-2015): 7.2%
Percent Change (2010-2021): 12.4%
County Rank in Population: 3
Land Area: 340.109 Square Miles
Rank in Land Area: 1

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 border 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 2-1 and Map 3-7 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. 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 3-1 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.

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

Flooding (flash and river) is considered due to the county's proximity to numerous creeks, as well as the Mississippi and Wapsipinicon Rivers. The county participates in the National Flood Insurance Program and will continue to do so. Hazards such as thunderstorm and lightning, windstorm, and severe winter storm occur frequently within the county and cause damage and result 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 4 of this plan.

The following table lists all considered natural hazards ranked from highest to lowest score as described in the Hazard Scoring Methodology in this chapter.

2017 Ranked Hazards
Flash Flood
River Flood
Thunderstorm, Lightning, Hail
Windstorm
Severe Winter Storm
Tornado
Grass and Wildland Fires
Earthquake
Drought
Expansive Soils
Extreme Heat
Dams
Landslide/Sinkhole
Levee Failure

Bettendorf Community School District (BCSD)

Overview

Schools in District	Location	2017 Enrollment
Bettendorf Community School District (PreK-12)		4,663
Bettendorf High School	3333 18th Street	1,530
Bettendorf Middle School	2030 Middle Road	1,109
Grant Wood Elementary School	1423 Hillside Drive	390
Herbert Hoover Elementary School	3223 S Hampton Drive	462
Mark Twain Elementary School	1620 Lincoln Road	292
Neil Armstrong Elementary School	3311 Central Avenue	300
Paul Norton Elementary School	4485 Greenbrier Drive	448
Thomas Jefferson Elementary School	610 Holmes Street	132
Administration Center	1311 18th Street	
Thomas Edison Academy	438 16th Street	
Operations Center	2727 Tanglefoot	

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 3-12 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 Digital Flood Insurance Rate Map (DFIRM) for more details (Appendix III-2).

Hazard Priorities

Bad weather including floods (both flash and river), thunderstorm and lightning, windstorms, severe winter storm, and hailstorms affect the busing of students. 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 generators 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 affects the area and minimize the threat to life and property. The BCSD's mitigation actions are listed in full in Chapter 4.

Davenport Community School District (DCSD)

Overview

Schools in District	Location	2016 Enrollment
Davenport Community School District (PreK-12)		14,380
Adams	3029 N. Division St., Davenport	564
Blue Grass	226 Sycamore St., Blue Grass	302
Buchanan	4515 N. Fairmount St., Davenport	373
Buffalo	1000 Jefferson St., Buffalo	232
Eisenhower	2827 Jersey Ridge Rd., Davenport	437
Fillmore	7307 N. Pacific St., Davenport	397
Garfield	902 E. 29th St., Davenport	394
Harrison	1032 W. 53rd St., Davenport	528
Hayes	622 S. Concord St., Davenport	401
Jackson	1307 Wisconsin Ave., Davenport	332
Jefferson	1027 Marquette St., Davenport	453
Madison	116 E. Locust St., Davenport	381
McKinley	1716 Kenwood Ave., Davenport	381
Monroe	1926 W. 4th St., Davenport	475
Truman	5506 N. Pine St., Davenport	369
Washington	1608 E. Locust St., Davenport	268
Wilson	2002 N. Clark St., Davenport	515
Smart	1934 W. 5th St., Davenport	519
Sudlow	1414 E. Locust St., Davenport	741
Walcott (K-8)	545 E. James St., Walcott	180
Williams	3040 N. Division St., Davenport	691
Wood	5701 N. Division St., Davenport	736
Young	1709 Harrison St., Davenport	327
Central	1120 Main St., Davenport	1,300
North	626 W. 53rd St., Davenport	1,158
West	3505 W. Locust St., Davenport	1,926
Children's Village at Hoover	1002 Spring St., Davenport	
Children's Village West	1757 W 12th St., Davenport	
Kimberly Center	1002 W. Kimberly Rd., Davenport	
Brady Stadium	3501 Brady St., Davenport	
Achievement Service Center	1606 Brady St., Davenport	
Bus Lot	3640 Davenport Ave., Davenport	

Land Area

Approximately 146 square miles.

Geography

The Davenport Community School District is located in the southwest section of Scott County in eastern Iowa along the Mississippi River. The district encompasses both urban and rural areas

and includes the cities of Blue Grass, Buffalo, Davenport, and Walcott. See Map 3-12 for district location.

Critical Facilities

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

Hazard Priorities

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

Overview

Buildings in Scott County	Location	2011 Enrollment (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[1]	Throughout County	631

* Total enrollment is for Scott County buildings only. EICC total enrollment for all campus in district is 8,846.

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

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 3-12 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 3-8 for more details.

Hazard Priorities

The Eastern Iowa Community College District (EICCD), in fact, encompasses the entire county and beyond. That is why the EICCD agreed to use the county-wide hazard scoring. All of the county-wide hazards do affect 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 affect the safety of students, faculty and staff. The EICCD does have a Commercial Driver's License and Trucking School, and that program in particular could be affected by a highway transportation incident. 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 generators 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 affects the area and minimize the threat to life and property. The EICCD's mitigation actions are listed in full in Chapter 4.

North Scott Community School District (NSCSD)

Overview

Schools in District	Location	2016-2017 Enrollment
North Scott Community School District (K-12)		3,242
North Scott Senior High School	Eldridge	957
North Scott Junior High School	Eldridge	484
Alan Shepard Elementary School	Long Grove	419
Edward White Elementary School	Eldridge	562
John Glenn Elementary School	Donahue	260
Neil Armstrong Elementary School	Eldridge	377
Virgil Grissom Elementary School	Princeton	183

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 2-1 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 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 affect 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 affect the busing and safety of students. 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 generators 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 affects 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 4.

Pleasant Valley Community School District (PVSCD)

Overview

Schools in District	Location	2015-2016 Enrollment
Pleasant Valley Community School District (K-12)		4,416
Pleasant Valley High School	Riverdale	1,268
Pleasant Valley Junior High School	LeClaire	684
Bridgeview Elementary School	LeClaire	362
Cody Elementary School	LeClaire	321
Hopewell Elementary School	Bettendorf	568
Pleasant View Elementary School	Bettendorf	632
Riverdale Heights Elementary School	Bettendorf	581

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 3-12 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).

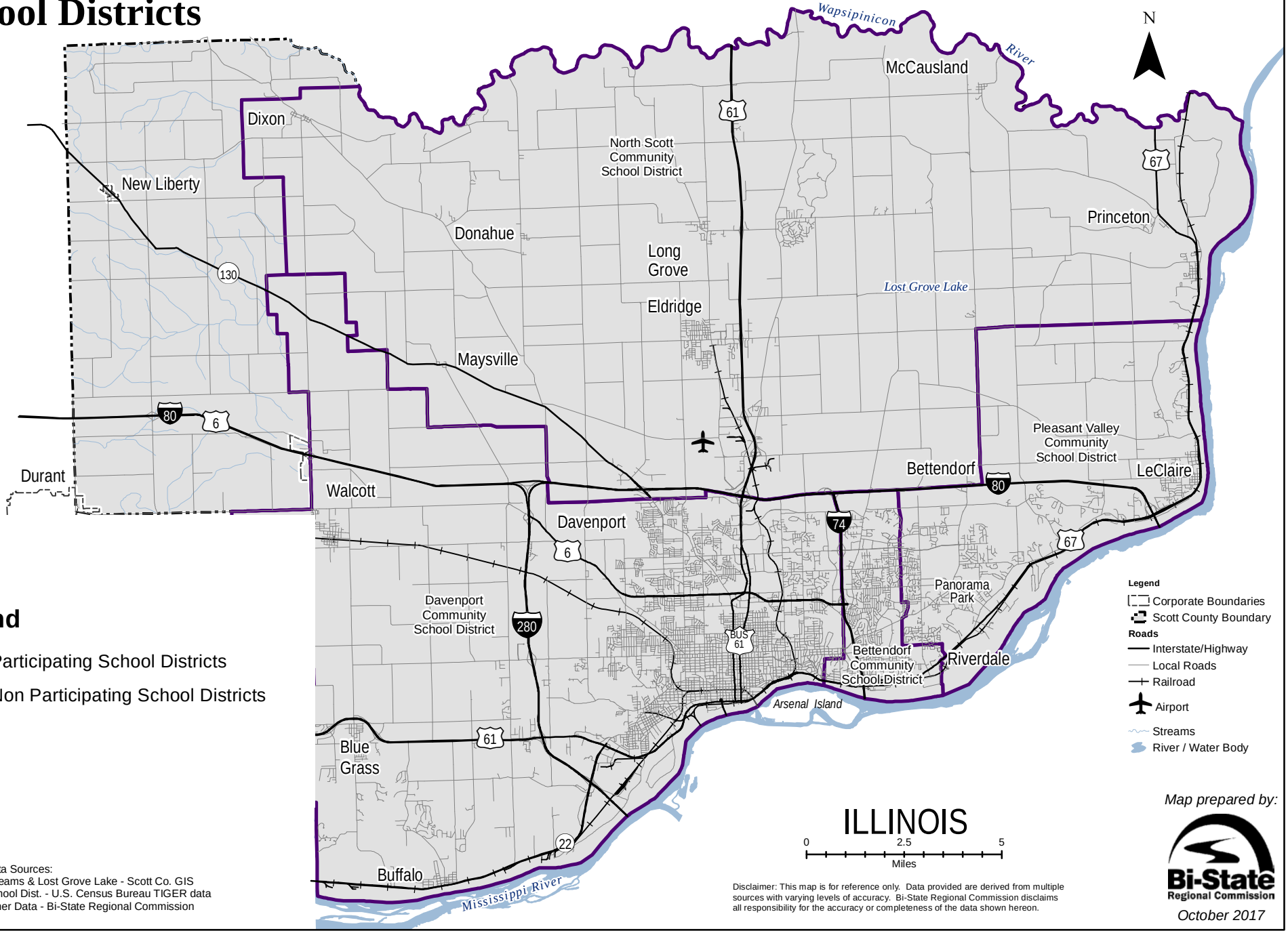
Hazard Priorities

The 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 affect 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 affect the busing and safety of students. 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 generators 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 affects 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 4.

Map 3-12

School Districts



Data Sources:
Streams & Lost Grove Lake - Scott Co. GIS
School Dist. - U.S. Census Bureau TIGER data
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:

Bi-State Regional Commission

October 2017

4 MITIGATION STRATEGY

This section presents the mitigation strategy developed in consultation with 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 March 2013 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 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 in 2012 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*, published in 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 that were carried forward into this plan and were reaffirmed by participating jurisdictions as part of the plan development process. 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. In 2012, the Planning Committee developed objectives based on six broad categories used in FEMA guidance documents to describe a range of mitigation measures. 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. These objectives were reaffirmed by the planning committee for this update.

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

1. 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 situations.
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.

Please refer to Chapter 3 for the hazard prioritization process. Hazard priorities vary by jurisdiction. Comparisons from the *Scott County Multi-Jurisdictional Hazard Mitigation Plan, 2012* natural hazard priorities and the updated priorities are listed below (in priority order) for each jurisdiction. The identified hazards and their ranking may differ somewhat for individual jurisdictions based on their unique conditions within Scott County.

Unincorporated Scott County:

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	Flash Flood
Extreme Heat	River Flood
River Flood	Thunderstorm, Lightning, Hail
Severe Winter Storm	Windstorm
Grass and Wildland Fires	Severe Winter Storm
Windstorm	Tornado
Dams	Grass and Wildland Fires
Flash Flood	Earthquake
Tornado	Drought
Landslide/Sinkhole	Expansive Soils
Levee Failure	Extreme Heat
Earthquake	Dams
Drought	Landslide/Sinkhole
Expansive Soils	Levee Failure

City of Bettendorf:

2012 Ranked Hazards	2017 Ranked Hazards
Flash Flood	Thunderstorm, Lightning, Hail
Thunderstorm, Lightning, Hail	Flash Flood
Windstorm	Windstorm
Grass and Wildland Fires	Grass and Wildland Fires
Severe Winter Storm	Levee Failure
Drought	Severe Winter Storm
River Flood	Extreme Heat
Levee Failure	River Flood
Extreme Heat	Tornado
Tornado	Drought
Earthquake	Earthquake
Landslide/Sinkhole	Landslide/Sinkhole
Dams	Dams
Expansive Soils	Expansive Soils

City of Blue Grass:

2012 Ranked Hazards	2017 Ranked Hazards
Tornado	Tornado
Windstorm	Windstorm
Severe Winter Storm	Severe Winter Storm
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Grass and Wildland Fires	Grass and Wildland Fires
Drought	Drought
Extreme Heat	Extreme Heat
Flash Flood	Flash Flood
Earthquake	Earthquake
Dams	Dams
Expansive Soils	Expansive Soils
Landslide/Sinkhole	Landslide/Sinkhole
Levee Failure	Levee Failure
River Flood	River Flood

City of Buffalo:

2012 Ranked Hazards	2017 Ranked Hazards
River Flood	Landslide/Sinkhole
Extreme Heat	Windstorm
Flash Flood	River Flood
Severe Winter Storm	Thunderstorm, Lightning, Hail
Thunderstorm, Lightning, Hail	Tornado
Tornado	Severe Winter Storm
Windstorm	Extreme Heat
Grass and Wildland Fires	Grass and Wildland Fires
Drought	Flash Flood
Dams	Drought
Earthquake	Expansive Soils
Expansive Soils	Levee Failure
Landslide/Sinkhole	Dams
Levee Failure	Earthquake

City of Davenport:

2012 Ranked Hazards	2017 Ranked Hazards
River Flood	Flash Flood
Flash Flood	Thunderstorm, Lightning, Hail
Windstorm	Windstorm
Thunderstorm, Lightning, Hail	Severe Winter Storm
Severe Winter Storm	River Flood
Tornado	Tornado
Earthquake	Grass and Wildland Fires
Extreme Heat	Earthquake
Landslide/Sinkhole	Extreme Heat
Grass and Wildland Fires	Expansive Soils
Dams	Landslide/Sinkhole
Drought	Levee Failure
Expansive Soils	Dams
Levee Failure	Drought

City of Dixon:

2012 Ranked Hazards	2017 Ranked Hazards
Severe Winter Storm	Severe Winter Storm
Windstorm	Windstorm
Tornado	Tornado
Dams	Dams
Drought	Drought
Earthquake	Earthquake
Expansive Soils	Expansive Soils
Extreme Heat	Extreme Heat
Flash Flood	Flash Flood
Grass and Wildland Fires	Grass and Wildland Fires
Landslide/Sinkhole	Landslide/Sinkhole
Levee Failure	Levee Failure
River Flood	River Flood
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail

City of Donahue:

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Grass and Wildland Fires	Grass and Wildland Fires
Windstorm	Windstorm
Severe Winter Storm	Severe Winter Storm
Drought	Drought
Flash Flood	Flash Flood
River Flood	River Flood
Tornado	Tornado
Extreme Heat	Extreme Heat
Dams	Dams
Levee Failure	Levee Failure
Earthquake	Earthquake
Expansive Soils	Expansive Soils
Landslide/Sinkhole	Landslide/Sinkhole

City of Eldridge:

2012 Ranked Hazards	2017 Ranked Hazards
Windstorm	Windstorm
Tornado	Tornado
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Extreme Heat	Extreme Heat
Severe Winter Storm	Severe Winter Storm
Drought	Drought
Earthquake	Earthquake
Grass and Wildland Fires	Grass and Wildland Fires
Flash Flood	Flash Flood
Expansive Soils	Expansive Soils
Dams	Dams
Landslide/Sinkhole	Landslide/Sinkhole
Levee Failure	Levee Failure
River Flood	River Flood

City of LeClaire:

2012 Ranked Hazards	2017 Ranked Hazards
Windstorm	Windstorm
Severe Winter Storm	Severe Winter Storm
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Tornado	Tornado
Grass and Wildland Fires	Grass and Wildland Fires
Extreme Heat	Extreme Heat
Flash Flood	Flash Flood
Levee Failure	Levee Failure
River Flood	River Flood
Dams	Dams
Landslide/Sinkhole	Landslide/Sinkhole
Earthquake	Earthquake
Drought	Drought
Expansive Soils	Expansive Soils

City of Long Grove:

2012 Ranked Hazards	2017 Ranked Hazards
Severe Winter Storm	Severe Winter Storm
Tornado	Windstorm
Windstorm	Thunderstorm, Lightning, Hail
Thunderstorm, Lightning, Hail	Tornado
Drought	Drought
Earthquake	Earthquake
Extreme Heat	Extreme Heat
Grass and Wildland Fires	Grass and Wildland Fires
Dams	Dams
Flash Flood	Flash Flood
Expansive Soils	Expansive Soils
Landslide/Sinkhole	Landslide/Sinkhole
Levee Failure	Levee Failure
River Flood	River Flood

City of Maysville:

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Grass and Wildland Fires	Grass and Wildland Fires
Severe Winter Storm	Severe Winter Storm
Drought	Drought
Windstorm	Windstorm
Extreme Heat	Extreme Heat
Earthquake	Earthquake
Expansive Soils	Expansive Soils
Tornado	Tornado
Dams	Dams
Flash Flood	Flash Flood
Landslide/Sinkhole	Landslide/Sinkhole
Levee Failure	Levee Failure
River Flood	River Flood

City of McCausland (Non-Participating):

2012 Ranked Hazards	2017 Ranked Hazards
Tornado	—
River Flood	—
Flash Flood	—
Grass and Wildland Fires	—
Extreme Heat	—
Levee Failure	—
Thunderstorm, Lightning, Hail	—
Windstorm	—
Drought	—
Severe Winter Storm	—
Landslide/Sinkhole	—
Expansive Soils	—
Dams	—
Earthquake	—

City of New Liberty (Non-Participating):

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	—
Extreme Heat	—
River Flood	—
Severe Winter Storm	—
Windstorm	—
Tornado	—
Earthquake	—
Grass and Wildland Fires	—
Landslide/Sinkhole	—
Dams	—
Drought	—
Expansive Soils	—
Flash Flood	—
Levee Failure	—

City of Panorama Park:

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Extreme Heat	Extreme Heat
River Flood	River Flood
Severe Winter Storm	Severe Winter Storm
Windstorm	Windstorm
Flash Flood	Flash Flood
Tornado	Tornado
Earthquake	Earthquake
Grass and Wildland Fires	Grass and Wildland Fires
Landslide/Sinkhole	Landslide/Sinkhole
Drought	Drought
Dams	Dams
Expansive Soils	Expansive Soils
Levee Failure	Levee Failure

City of Princeton:

2012 Ranked Hazards	2017 Ranked Hazards
Tornado	Tornado
River Flood	River Flood
Flash Flood	Flash Flood
Grass and Wildland Fires	Grass and Wildland Fires
Drought	Drought
Extreme Heat	Extreme Heat
Levee Failure	Levee Failure
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Windstorm	Windstorm
Severe Winter Storm	Severe Winter Storm
Landslide/Sinkhole	Landslide/Sinkhole
Expansive Soils	Expansive Soils
Dams	Dams
Earthquake	Earthquake

City of Riverdale:

2012 Ranked Hazards	2017 Ranked Hazards
River Flood	River Flood
Severe Winter Storm	Severe Winter Storm
Tornado	Tornado
Windstorm	Windstorm
Grass and Wildland Fires	Grass and Wildland Fires
Flash Flood	Flash Flood
Drought	Drought
Thunderstorm, Lightning, Hail	Thunderstorm, Lightning, Hail
Extreme Heat	Extreme Heat
Levee Failure	Levee Failure
Dams	Dams
Landslide/Sinkhole	Landslide/Sinkhole
Expansive Soils	Expansive Soils
Earthquake	Earthquake

City of Walcott:

2012 Ranked Hazards	2017 Ranked Hazards
Thunderstorm, Lightning, Hail	Windstorm
Tornado	Thunderstorm, Lightning, Hail
Windstorm	Severe Winter Storm
Severe Winter Storm	Tornado
Extreme Heat	Earthquake
Earthquake	Flash Flood
Grass and Wildland Fires	Extreme Heat
Drought	Grass and Wildland Fires
Flash Flood	Expansive Soils
Dams	Landslide/Sinkhole
Expansive Soils	Drought
Landslide/Sinkhole	Dams
Levee Failure	Levee Failure
River Flood	River Flood

Evaluation of Alternative Mitigation Actions

For the previous 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. The six objectives were retained for this plan update. Existing mitigation actions were reviewed by each jurisdiction to determine what progress had been made and to evaluate efficacy.

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.

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, including 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.

Cost benefit analysis for each action is captured in the STAPLEE. This is noted as part of the economic considerations for each.

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; those STAPLEE evaluations are included as Appendix IV-4. The individual jurisdiction priority actions are summarized in Table 4-1. The actions are listed in priority order for each jurisdiction.

A status of each action is included to indicate what progress has been made toward actions as identified in the 2012 plan. The status abbreviations correspond with the following:

- (C) Complete
- (I) Incomplete
- (OC) On-going as part of a continuous cycle
- (OP) Ongoing, In Progress or In Development
- (R) Remove

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 have been re-evaluated during the plan update to determine if they are still relevant to each jurisdiction and re-evaluated with subsequent updates.

Table 4-1
Multi-Jurisdictional Priority Actions

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
Bettendorf							
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident	C	N
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood	C	N
1.3	1	3	Encourage use of NOAA weather radios	PE	All Hazards	C	N
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	C	N
1.5	1	6	Provide treatment locations for pandemic disease and fixed radiological incident	ES	Human Disease Pandemic, Fixed Radiological Incident	OC	N
1.6	1, 2	1	Encourage use of certain routes for transportation of hazardous materials	PM	Transportation of Hazardous Materials	C	N
1.7	1, 2	2, 6	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident	C	N
1.8	1, 4	3, 2, 6	Encourage those dependent on oxygen extractors to install back-up generators	PE, PP, ES	Energy Failure	OC	N
1.9	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease	C	N
2.1	2	1	Create additional railroad right-of-way separation requirements from residential areas.	PM	Railway Transportation Incident	OP	N
2.2	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood	C	N
2.3	2	1	Maintain controlled burn measures and procedures implemented by the Fire department	PM	Grass and Wildland Fire	C	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
2.4	2	1	Require utility companies to mark approximate locations of pipeline utilities	PM	Pipeline Transportation Incident	C	N
2.5	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire	C	N
2.6	2	3	Educate public about plant disease, infestation and plant removal techniques	PE	Animal/Plant/Crop Disease	C	N
2.7	2, 3	1	Ensure hazardous materials sites are monitored.	PM	Fixed Hazardous Materials Incident	C	N
2.8	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards	OC	N
2.9	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood	OP	N
2.10	2, 3	1, 2, 4	Seek all appropriate available grants for the purpose of mitigating flood prone residential properties by use of buyout programs and return the properties in the flood zone back to open space eliminating future flood threats.	PM, PP, NR	Flash Flood, River Flood	OP/OC	Y
3.1	3	1	Encourage the planting of more drought resistant landscape	PM	Drought	C	N
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	C	N
3.3	3	1, 6	Analyze high traffic accident locations for possible solutions	PM, SP	Highway Transportation Incident	C	N
3.4	3	1, 6	Conduct safety inspections of levees and maintain protection certification through US Army Corps of Engineers	PM, SP	Levee Failure	C	N
3.5	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism	C	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
3.6	3	3	Assist in promotion of vaccination programs with local, state and federal officials	ES	Human Disease Pandemic, Human Disease Incident	C	N
3.7	3	6	Ensure all critical facilities have back-up generators	ES	Energy Failure	OP	N
4.1	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm	C	N
4.1	4	1, 3	Implement wildfire prevention program	PM, PE	Grass and Wildland Fire	C	N
4.11	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire	C	N
4.12	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	C	N
4.13	4	3	Educate the public on what river flood levels on the Mississippi and Wapsipinicon actually mean	PE	River Flood	C	N
4.14	4	3	Educate the public on sandbagging techniques and other flood prevention technologies	PE	River Flood	C	N
4.15	4	3	Educate the public on the dangers of flash flooding	PE	Flash Flood	C	N
4.16	4	3	Promote state and federal remediation programs for windstorm and animal/crop/plant disease incidents	PE	Windstorm, Animal/Plant/Crop Disease	OC	N
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	OC	N
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	C	N
4.19	4	3, 6	Educate the public on how to minimize damage their residences and businesses	PE, ES	River Flood	OC	N
4.2	4	3	Educate the public on the dangers of lightning	PE	Thunderstorm & Lightning	C	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.2	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	C	N
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	OC	N
4.22	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood	C	N
4.3	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood	C	N
4.4	4	3	Utilize ITS signs to communicate safe driving messages and to alert drives to hazardous conditions	PE	Highway Transportation Incident	C	N
4.5	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure	C	N
4.6	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm	C	N
4.7	4	3	Educate the public on maintaining a fire safe home or business	PE	Structural Fire	C	N
4.8	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	C	N
4.9	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	C	N
5.1	5	1	Make sure hazardous materials sites keep their inventory of materials current.	PM	Fixed Hazardous Materials Incident	C	N
5.2	5	1	Have regular training for water rescue and updated equipment	PM	Waterway Incident	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
5.3	5	1	Maintain mutual aid response policy established by local governments/agencies	PM	All Hazards	C	N
5.4	5	1, 6	Ensure First Responders have rescue plans for severe weather.	PM, ES	All Natural Hazards	C	N
5.5	5	1, 6	Encourage First Responders to share resources and equipment	PM, ES	All Hazards	C	N
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	OC	N
5.7	5	6	Clear driveways of first responders in order to ensure quicker response times	ES	Severe Winter Storm	C	N
Bettendorf CSD							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OP	N
1.2	1, 2	2, 5	Consider back-up generators at public critical facilities	SP, PP	Energy Failure	OP	N
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	C	N
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	OC	N
1.2	1	3	Promote use of NOAA weather radios	PE	All Hazards	C	N
1.3	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	I	N
2.1	2	1	Join the National Flood Insurance Program	PM	River Flood, Flash Flood	I	N
2.2	2, 3	1	Ensure hazardous materials sites are monitored.	PM	Fixed Hazardous Materials Incident	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
2.3	2, 3	5	Ensure hydrants are maintained and well identified	SP	Structural Fire	R	N
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	OC	N
4.1	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure	OC	N
4.2	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.3	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire	OC	N
4.4	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	OC	N
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	OP	N
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	OP	N
4.7	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards	OP	N
5.1	5	1	Make sure hazardous materials sites keep their inventory of materials current.	PM	Fixed Hazardous Materials Incident	OC	N
5.2	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
5.3	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards	OP	N
Buffalo							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	I	N
1.2	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood	OC	N
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	C	N
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	OC	N
4.1	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	I	N
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	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
Davenport							
1.1	1	6	Maintain and enhance City procedures for communicating flood, weather and transportation related warnings and advisories when risk to people and property are possible, probable or imminent.	ES	All	OC	N
1.2	1	2	Fund flood & other mitigation programs either as cost share for grants or full funding (Flood Acquisition Program FAP), for buyout/demolition, elevation, floodproofing actions and safe room construction.	PP	Flood	OP	N
1.3	1	5	Conduct & document inspections and M&O activities for Garden Addition levee and IA-American floodwall projects.	SP	Flood	OC	Y
1.4	1	6	Continue DFD HAZMAT program.	ES	Hazardous spills	OC	N
1.5	1	2	Adopt e-Plan review for ensuring accountability, consistency or review and application of codes for all buildings and land improvement assuring enforcement of all codes.	PP	All	OP	Y
1.6	1	2	Maintain/update disease and pest management plans for City's Urban Forest. Reduce hazards of dead/dying trees; grow tree canopy; reduce heat islands.	PM, PP	Extreme Heat, Flood	OC	Y
2.1	2	3	Continue program compliance and accreditations for NFIP, CRS (upgrade CRS class), StormReady Community, Weather Ready Nation Ambassador and STAR Community programs, among others.	PE	All	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
2.2	2	1	Continue to maintain and implement a comprehensive Stormwater Management and Floodplain Management Plans which address the regulations, policies, procedures, inspection, maintenance and Capital Improvement planning and prioritization of natural and built surface water infrastructure, including but not limited to: streams and streambanks; detention, retention and infiltration practices; levee system; and structural and non-structural flood control measures, structures and systems.	PM, PE	Flood	OC	N
2.3	2	1	Develop and implement public and private stream buffer regulations, policies and procedures and include in revisions to Subdivision and Flood Damage Prevention ordinances.	NR	Flood	OP	Y
2.4	2	4	Inspect and evaluate private stream/streambank conditions not previously inspected as funding is available and continue regular creek inspection and bank stabilization programs.	NR	Flood	OP	N
2.5	2	4	Develop for future implementation a residential infiltration program to mitigate the effects of increased impervious surface/build-out.	PM, NR	Flood	OP	Y
3.1	3	5	Fund and implement approved river front flood mitigation measures as identified in RiverVision, Riverfront Conceptual Development Plan and the Davenport Flood Mitigation Study.	PP, PE, SP	Flood	OP	Y
3.2	3	3	Develop and conduct periodic risk and vulnerability assessments of critical facilities for corrective action that reduces or eliminates risk or vulnerability.	PM, PP, PE, ES	All	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.1	4	3	Maintain, continue to enhance/implement public education/outreach programs with respect to hazards. Develop and implement a Program for Public Information based on the CRS.	PE	All	OP	N
4.2	4	3	Support/partner with Scott County efforts to establish a Safeguard Iowa Chapter.	PM, PE	All	OP	Y
4.3	4	3	Identify and map at risk/vulnerable populations based on age, disability and income. Target outreach to groups.	PE, ES	All	OP	N
4.4	4	1	Maintain and enhance all relevant hazard mitigation, preparedness and response GIS data and services(up-to-date and ready for use) including but not limited to: asset and infrastructure detail, flood risk data, HAZUS – MH (multi-hazard), US National Grid and locally defined map grid services, IDNR watershed details, rail infrastructure and most recent land contour data received during aerial photography.	PM	All	OP	N
4.5	4	1	Develop and maintain resource inventories of equipment type and personnel credentials/certifications for use during disasters.	PM, ES	All	OP	Y
4.6	4	1	Develop resiliency plans (post disaster recovery planning) by utilizing data from past and continued participation in the Notre Dame Global Adaptation Initiative, ND-Gain Urban Adaptation Assessment and STAR Community programs.	PM, PE	All	OP	Y
4.7	4	3	Maintain, train/exercise and enhance the City's Flood Plan and associated resources.	PM, PP, ES	Flood	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.8	4	6	Develop, maintain, train/exercise and enhance the City's Debris Management Plan and associated resources.	PM, ES	All	OP	N
4.9	4	6	Maintain, train/exercise and enhance the City's Snow and Ice Control Plan and associated resources.	PM, ES	Winter Storm	OC	N
5.1	5	1	Participate in and engage stakeholders in periodic maintenance and exercises of the Davenport/Scott County Local Energy Assurance Plan.	PE, ES	Energy Failure	OC	N
5.2	5	3	Participate in developing flood inundation mapping resources with the Iowa flood Center when opportunity is identified.	PE	Flood	OP	Y
Davenport CSD							
1	1,2	1, 3, 6	Review existing emergency policies and procedures and amend as needed	PM, PE, ES	All Hazards	C	N
2	1,3,4	3, 6	Continue public communication of existing emergency procedures	PE, ES	All Hazards	OC	N
3	1	2	Complete installation of security cameras at all schools	SP	Terrorism	C	N
4	1	5	Secure vestibules with outdoor camera	SP	Terrorism	OP	N
5	1	2	Reinforce doors at school for tornado safety and increased security	SP	Tornado, Terrorism	OP	N
6	1	2, 5, 6	Harden all exterior doors with stronger door or ballistic film on glass in all schools	PP, SP, ES	Terrorism, Tornado	C	N
7	1	5	Construct a tornado shelter at Kimberly Center	SP	Tornado	OP	N
8	1	5	Construct multi-purpose safe rooms at multiple district locations within the district	SP	Tornado	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
9	1,2	1, 2, 4, 5	Build a berm around Brady Street Stadium to prevent flash flooding. This would include compensatory storage for displaced water.	PM, PP, NR, SP	Flash Flood, River Flood	R	N
10	4	6	Purchase radios at 800mh to run off city network for emergency response	ES	All Hazards	C	N
11	1	1	Provide NOAA weather radios for all district properties	PM	All Hazards	C	N
12	1,2	1,6	Install back-up generators at district facilities as feasible	PM, ES	All Hazards	OP	N
13	1	1	Research lightning detectors for schools and athletic venues. Purchase and install if feasible.	PM	Thunderstorm & Lightning	OP	N
Dixon							
1.1	1	3	Promote use of NOAA weather radios	PE	All Hazards	OC	N
1.2	1, 3	1	Pre-treat roads before severe winter storms	PM	Severe Winter Storm	OC	N
2.1	2, 3	5	Ensure hydrants are maintained and well identified	SP	Structural Fire	OC	N
4.1	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.2	4	3	Develop a check-on-neighbor program for vulnerable populations	PE	All Hazards	OP	N
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	OP	N
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	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
EICCD							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OP	N
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
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	OP	N
Eldridge							
1.1	1	1	Evaluate need for traffic re-routing plan and create plan if needed	PM	Fixed Hazardous Materials Incident	OP	N
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	OC	N
1.3	1, 2	1	Enforce building codes for prevailing winds	PM	Windstorm, Structural Fire	OC	N
1.4	1, 2	1	Evaluate traffic hazards in likely areas	PM	Transportation of Hazardous Materials Incident, Highway Transportation Incident	OP	N
2.1	2	1	Enforce floodplain regulations	PM	Flash Flood; River Flood	OC	N
2.2	2	1	Enforce property maintenance and building codes	PM	Structural Fire	OC	N
2.3	2	5	Evaluate storm sewer system and detention ponds	SP	Flash Flood	OC	N
3.1	3	1	Have water conservation plan in place	PM	Drought	OP	N
3.2	3	5	Maintain water system (adequate well, storage and treatment capacity)	SP	Drought	OC	N
4.1	4	1	Make sure Hazardous Material warning signs are posted as required	PM	Fixed Hazardous Materials Incident	OC	N
4.2	4	3	Educate public on Thunderstorm & Lightning hazards and Tornados and inform on siren use	PE	Thunderstorm & Lightening, Tornado	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.3	4	3	Inform public on value of managing trees properly (remove dead branches, etc.)	PE	Windstorm	OC	N
4.4	4	3	Inform public of availability of emergency shelter	PE	Windstorm, Severe Winter Storm, Energy Failure, Tornado	OC	N
4.5	4	3	Educate public on need to be prepared for severe winter storms	PE	Severe Winter Storm	OC	N
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	OC	N
4.7	4	3	Educate public on need for water conservation	PE	Drought	OC	N
5.1	5	1	Verify siren operation	PM	Thunderstorm & Lightening, Tornado, Windstorm	OC	N
5.2	5	6	Make sure emergency crews are prepared	ES	Transportation of Hazardous Materials Incident, Highway Transportation Incident	OC	N
LeClaire							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OP	N
1.2	1, 2	2, 6	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident	C	N
1.3	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease	OC	N
2.1	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards	OC	N
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism	C	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
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	OC	N
3.3	3	5	Utilize traffic calming measures	SP	Highway Transportation Incident	OP	N
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	C	N
3.6	3	5	Develop stream modification/channel improvement project	SP	River Flood, Flash Flood, Levee Failure, Dam Failure	I	N
3.7	3	5	Remove asbestos from public buildings	SP	Fixed Hazardous Materials Incident, Human Disease Incident, Structure Failure, Structural Fire	I	N
4.1	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure	OP	N
4.2	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm	OC	N
4.3	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	OP	N
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	OP	N
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards	OC	N
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
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	OC	N
Long Grove							
2.1	2	1	Adopt and enforce current building codes	PM	Windstorm, Severe Winter Storm, Tornado, Structural Fire	OP	N
3.1	3	1, 6	Construct sand and salt storage facility	PM, ES	Severe Winter Storm	C	N
3.2	3	6	Ensure each public facility has back-up generators	ES	Energy Failure	C	N
3.3	3, 1	5, 1	Install second well	SP, PM	Drought	C	N
3.4	3, 2	1	Adopt SUDAS for Infrastructure Construction standards	PM	Structural Failure, Severe Winter Storm	OP	N
Maysville							
4.1	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.2	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	OC	N
4.3	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	OC	N
McCausland (Not Participating)							
1.1	1, 2	2, 3	Pre-treat roads before severe winter storms	PP, ES	Severe Winter Storm, Highway Transportation Incident		N
1.2	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure		N
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		N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
1.4	1, 4	3, 2, 6	Encourage those dependent on oxygen extractors to install back-up generators	PE, PP, ES	Energy Failure		N
1.5	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease		N
2.1	2	1	Join the National Flood Insurance Program	PM	River Flood, Flash Flood		N
3.2	3	5	Identify critical facilities such as lift stations where back-up power generators should be installed	SP	Energy Failure, River Flood		N
4.1	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood		N
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm		N
4.3	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm		N
4.4	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado		N
4.5	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat		N
4.6	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire		N
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		N
4.8	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards		N
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism		N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
New Liberty (Not Participating)							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado		N
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure		N
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		N
North Scott CSD							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	C	N
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
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	OP	N
Panorama Park							
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood	OC	N
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards	R	N
1.4	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OP	N
1.5	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	R	N
2.2	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire	OC	N
2.3	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.1	4	3	Educate the public on the dangers of flash flooding	PE	Flash Flood	OC	N
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm	OC	N
4.3	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.4	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	R	N
4.5	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire	OC	N
4.6	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	OC	N
4.7	4	3	Develop a check-on-neighbor program for vulnerable populations	PE	All Hazards	OC	N
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	OC	N
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	R	N
4.1	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards	OC	N
4.11	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood	R	N
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards	R	N
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards	OC	N
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident	R	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood	OC	N
Pleasant Valley CSD							
1.1	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OP	N
1.2	1, 2	2, 5	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
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	OP	N
Princeton							
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident	OC	N
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood	OC	N
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards	OC	N
1.4	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
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	OP	N
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	OC	N
4.1	4	3	Educate the public on what river flood levels on the Mississippi and Wapsipinicon actually mean	PE	River Flood	OC	N
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	OP	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.3	4	3, 6	Educate the public on how to minimize damage their residences and businesses	PE, ES	River Flood	OP	N
4.4	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood	OC	N
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	OP	N
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards	C	N
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism	OP	N
Riverdale							
1.1	1	5	Add tornado siren in Haven Acres subdivision.	SP	Tornado	OP	N
1.2	1, 2, 3	6	Maintain existing fire equipment	ES	Structural Fires	OC	N
1.3	1, 2, 3	6	Purchase additional fire equipment as required	ES	Structural Fires	OC	N
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	C	N
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	OP	N
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	OP	N
5.1	5	6	Continue education and certification of fire fighters	ES	Structural Fire	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
Unincorporated Scott County							
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident	OC	N
1.2	1	1, 6	Create detour and road closure plans for flooded areas	PM, ES	Flash Flood, River Flood	OP	N
1.3	1	3	Promote use of NOAA weather radios	PE	All Hazards	OC	N
1.4	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	OC	N
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, Waterway Incident, Windstorm, Sinkholes & Land Subsidence, Landslide, Expansive Soils	OC	N
1.6	1, 2	5, 2	Ensure each public critical facilities have back-up generators	SP, PP	Energy Failure	OP	N
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	OC	N
2.1	2	1	Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code	PM	River Flood	OC	N
2.2	2	2, 5	Adopt and enforce current building codes	PP, SP	Windstorm, Severe Winter Storm, Tornado, Structural Fire	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
2.3	2, 3	1	Encourage development where adequate facilities and infrastructure exists	PM	All Hazards	OC	N
2.4	2, 3	1, 4	Develop and implement stormwater regulations and drainage plans	PM, NR	Flash Flood, River Flood	OC	N
2.5	2, 4	1, 3	Participate in the Community Rating System	PM, PE	River Flood	OP	N
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	OP	N
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	OC	N
4.1	4	3	Educate the public and businesses about NFIP and the floodplain in general	PE	River Flood	OC	N
4.2	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm	R	N
4.3	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.4	4	3	Communicate the locations of community shelters	PE	Severe Winter Storm, Energy Failure, Extreme Heat	I	N
4.5	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	OC	N
4.6	4	3	Create multi-lingual educational materials for hazards	PE	All Hazards	I	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
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	OC	N
4.8	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards	I	N
4.9	4	6, 1	Monitor water levels and notify the public when flooding will occur and where	ES, PM	Flash Flood, River Flood	OC	N
5.1	5	1, 6	Require First Responders to have rescue plans for severe weather.	PM, ES	All Natural Hazards	I	N
5.2	5	1, 6	Encourage First Responders to share resources and equipment and have intergovernmental agreements in place	PM, ES	All Hazards	OP	N
5.3	5	3	Join the Iowa Floodplain and Stormwater Management Association	PE	River Flood, Flash Flood	I	N
5.4	5	3	Establish workshops and training functions for all community floodplain managers	PE	Flash Flood, River Flood	I	N
3.1	3	2	Be proactive with virus protection and store back-up data in offsite location	PP	Cyber Terrorism	OC	N
Walcott							
1.1	1	1, 6	Ensure First Responders are aware of hazardous materials kept at each site.	PM, ES	Fixed Hazardous Materials Incident	OC	N
1.2	1	3	Promote use of NOAA weather radios	PE	All Hazards	OC	N
1.4	1, 2, 3	4, 5	Monitor tree health and remove damaged or weak branches	NR, SP	Windstorm, Animal/Plant/Crop Disease	OC	N
4.4	4	3	Communicate snow removal policies with the public to ensure most efficient removal of snow	PE	Severe Winter Storm	OC	N
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	OC	N

Action ID	Goals	Objectives	Action Strategy	Action Measures	Hazards Addressed	Status of Action	New for 2018 (Y/N)
4.2	4	3	Notify the public on warming shelter locations	PE	Severe Winter Storm, Energy Failure	OC	N
2.2	2, 3	5, 6	Investigate the feasibility of developing a regional storm water detention area south of the Iowa 80 Interchange Area to reduce flash flooding in the community.	SP	River Flood, Flash Flood	OP	Y
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	OP	N
1.3	1	5	Consider safe room construction where vulnerable populations may not have other sources of shelter	SP	Tornado	I	N
4.5	4	3	Educate the public on the dangers of tornados and what to do during a tornado	PE	Tornado	OC	N
4.9	4	3, 6	Encourage the public to check on the disabled, elderly, and other vulnerable populations	PE, ES	All Hazards	OC	N
4.3	4	3	Educate the public on the dangers of traveling during severe winter storms	PE	Severe Winter Storm	OC	N
4.7	4	3	Educate citizens on the importance of smoke detectors and encourage their use	PE	Structural Fire	OC	N
4.6	4	3	Educate citizens on fire hazards and what to do in the event of a fire	PE	Structural Fire	OC	N
4.1	4	3	Educate the public on the dangers of lightning	PE	Thunderstorm & Lightning	OC	N

Removed Actions

Bluegrass chose to remove action 2.3 (Ensure hydrants are maintained and well identified.) because they are now managed by Iowa American Water Company instead of the city.

Davenport Schools chose to remove action 9 (Build a berm around Brady Street Stadium to prevent flash flooding. This would include compensatory storage for displaced water.) because it was determined not to be feasible due to environmental restrictions.

Panorama Park chose to remove actions 1.3 (Promote use of NOAA weather radios); 1.5 (Ensure each public critical facilities have backup generators); 4.4 (Communicate the locations of community shelters); 4.9 (Educate the public on river flooding and what they need to do when an event occurs); 4.11 (Monitor water levels and notify the public when flooding will occur and where); 5.1 (Require First Responders to have rescue plans for severe weather); and 1.1 (Ensure First Responders are aware of hazardous materials kept at each site) because these strategies are already handled by other jurisdictions or agencies.

Scott County chose to remove action 4.2 (Educate the public on the dangers of traveling during severe winter storms.) because it was already being accomplished through the National Weather Service and Iowa Department of Transportation.

5 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 Emergency Management Agency 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 Emergency Management Agency 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 Emergency Management Agency 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 2 of the plan.

What:

Incorporating requirements of the mitigation plan will focus on existing planning mechanisms common among several 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.

For communities that do not currently have the planning mechanisms in place listed above, the mitigation plan will be considered in annual budgeting processes and other plans listed in Table 2-1 as appropriate. Related plans and documents will be reviewed as they are updated to align with goals, objectives, and mitigation strategies outlined in this plan where feasible.

Who:

Scott County Emergency Management Agency 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 Emergency Management Agency for the annual plan review meeting.

When:

Scott County Emergency Management Agency 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 related public 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.

APPENDIX I-1 SAMPLE RESOLUTION

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 multi-jurisdictional 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-Jurisdiction Local Hazard Mitigation Plan was presented to the Scott County Board of Supervisors on ___(date)_____; 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 this _____th day of _____, 201_.

ATTEST:

_____ _____

APPENDIX I-2 ADOPTION RESOLUTIONS

THE COUNTY AUDITOR'S SIGNATURE CERTIFIES THAT THIS RESOLUTION HAS BEEN FORMALLY APPROVED BY THE BOARD OF SUPERVISORS ON 11/2/2017. DATE

SCOTT COUNTY AUDITOR

RESOLUTION

SCOTT COUNTY BOARD OF SUPERVISORS

November 2, 2017

A RESOLUTION APPROVING AND ADOPTING THE 2017 SCOTT COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN UPDATE.

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 updating the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan update; and

WHEREAS, the BSRC and County staff have prepared the Plan update in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, those municipalities within Scott County that have participated in the multi-jurisdictional plan update process will each pass their own resolutions to approve and adopt the plan; and

WHEREAS, the Plan update process has been subject to public review and comment during its development; and

WHEREAS, Scott County has reviewed the Plan and affirms that the Plan will be updated no less than every five years; and

WHEREAS, the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan was presented to the Scott County Board of Supervisors on October 31, 2017 in meeting as a Committee of the Whole.

BE IT RESOLVED by the Scott County Board of Supervisors as follows:

Section 1. Updates to the Scott County Multi-Jurisdictional Local Hazard Mitigation as prepared by Bi-State Regional Commission (under contract to the Scott County Emergency Management Agency) with input from all participating municipalities, school districts and the local community college district are hereby

approved, pending review for approval by the State of Iowa Department of Homeland Security and Emergency Management and the Federal Emergency Management Agency.

Section 2. That the resulting 2017 Scott County Multi-Jurisdictional Local Hazard Mitigation Plan update document is hereby adopted as the official plan for Scott County, pending the submittal and final review process.

Section 3. This resolution shall take effect immediately.

Scott County Board of Supervisors

Chair, Carol Earnhardt

RESOLUTION NO. 402 - 17

RESOLUTION APPROVNG AND ADOPTING THE 2017 SCOTT COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN UPDATE

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 updating the Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, the County contracted with Bi-State Regional Commission (BSRC) for assistance in preparing the Plan update; and

WHEREAS, the BSRC and County staff have prepared the Plan update in accordance with FEMA requirements at 44 CFR 201.6; and

WHEREAS, those municipalities within Scott County that have participated in the multi-jurisdictional plan update process will each pass their own resolutions to approve and adopt the plan; and

WHEREAS, the Plan update process has been subject to public review and comment during its development; and

WHEREAS, the City of Bettendorf and Scott County have reviewed the Plan and affirms that the Plan will be updated no less than every five years; and

WHEREAS, the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan was presented to the City of Bettendorf City Council on November 6, 2017 in meeting as a Committee of the Whole.

BE IT RESOLVED by the Bettendorf City Council as follows:

Section 1. Updates to the Scott County Multi-Jurisdictional Local Hazard Mitigation as prepared by Bi-State Regional Commission (under contract to the Scott County Emergency Management Agency) with input from all participating municipalities, school districts and the local community college district are hereby approved, pending review for approval by the State of Iowa Department of Homeland Security and Emergency Management and the Federal Emergency Management Agency.

Section 2. That the resulting 2017 Scott County Multi-Jurisdictional Local Hazard Mitigation Plan update document is hereby adopted as the official plan for the City of Bettendorf, pending the submittal and final review process.

Section 3. This resolution shall take effect immediately.

PASSED, APPROVED AND ADOPTED this 7th day of November, 2017.

Mayor Robert S. Gallagher

ATTEST:

City Clerk, Decker P. Ploehn

STATE OF IOWA }
} **ss.**
COUNTY OF SCOTT }

I, Jackie E. Holecek, Deputy City Clerk of the City of Davenport, in the County and State aforesaid, do hereby certify that the attached is a true, perfect and complete copy of the Resolution 2017-494 as duly entered on the records of the said City.

In Witness Whereof, I, Jackie E. Holecek MMC, Deputy City Clerk of said City, hereunto set my hand and seal this 21st day of November, 2017.

Jackie E. Holecek, Deputy City Clerk

Resolution No. 2017-494

Resolution offered by Alderman Gripp.

RESOLVED by the City Council of the City of Davenport.

RESOLUTION for Case No. CP17-01 being the request of the City of Davenport – Community Planning & Economic Development (CPED) to adopt the Scott County Multi-Jurisdictional Hazard Mitigation Plan and add it as an element to Davenport 2025: Comprehensive Plan for the City. A full draft of the 2018 plan document as well as the 2013 plan is available for viewing on the Scott County Planning and Development website at https://www.scottcountyiowa.com/planning/hazard-mitigation-plan. [All Wards].

WHEREAS, Scott County applied for an 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 or participated in the Multi-Jurisdictional Plan since 2003;

WHEREAS, the City of Davenport's participation in the County's plan development process acts as the required update to its Hazard/Disaster Mitigation Plan; and

WHEREAS, an adopted disaster mitigation plan is required for Davenport to receive federal grant funds for disaster mitigation and recovery as well as participation in the National Flood Insurance Program's Community Rating System;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Davenport that approves and adopts the five plan goals, Davenport's hazard scoring of its natural hazards and the revised action items reflecting inter-departmental cooperation and regional collaboration with outside agencies for the Scott County Multi-Jurisdiction Local Hazard Mitigation Plan.

Approved:

Frank Klipsch, Mayor

Attest:

Jackie E. Holecek, Deputy City Clerk

Resolution Number # 2017-22

A RESOLUTION OF THE CITY OF PRINCETON IN SUPPORT OF THE APPROVAL AND ADOPTION OF THE 2017 SCOTT COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

WHEREAS, Scott County applied for and was awarded funding from the Pre-Disaster Mitigation Grant Program (PDM) administered by the Federal Emergency Management agency (FEMA) and through the Iowa Homeland Security and Emergency Management Division (IHSEMD) for updating the 2012 Scott County Multi-Jurisdictional Local Hazard Mitigation Plan; and

WHEREAS, Scott County contracted with the Bi-State Regional Commission (BSRC) for assistance in preparing the Plan; and

WHEREAS, the City of Princeton, with assistance from Scott County and BSRC has gathered information and prepared the Scott county 2017 Multi-Jurisdictional Hazard Mitigation Plan Update; and

WHEREAS, the Scott County Multi-Jurisdictional Hazard Mitigation Plan Update 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 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 2017 Scott County Multi-Jurisdictional Hazard Mitigation Plan Update as this jurisdictions Multi-Hazard Mitigation Plan pending FEMA approval of the Plan. The plan document will be adopted in the final format approved by FEMA.

ADOPTED THIS 14th DAY OF DECEMBER, 2017 AT THE MEETING OF THE MAYOR AND CITY COUNCIL FOR THE CITY OF PRINCETON.

Roger Woomert, Mayor

Roger Woomert, Mayor

ATTEST:

Patty Morgan, Deputy Clerk

Patty Morgan, Deputy Clerk

APPENDIX II-1 PLANNING COMMITTEE LIST

Scott County Multi-Jurisdictional Hazard Mitigation Planning Committee

Primary Contacts	Name	Title
Scott County	Dave Donovan	EMA Director
Scott County	Tim Huey	Planning Director
Blue Grass	Ann Schmidt	City Clerk/Financial Officer
Bettendorf	Greg Beck	City Planner
Buffalo	T.J. Behning	Police Chief
Davenport	Wayne Wille	Planner II
Dixon	Steve Laughlin	Mayor
Donahue	Ken Schoenthaler	Mayor
Eldridge	John Dowd	City Administrator
LeClaire	Edwin N. Choate	City Administrator
Long Grove	Rosina Boddicker	City Clerk/Treasurer
Maysville	Tess Haas	City Clerk/Treasurer
Panorama Park	William Minard	Mayor
Riverdale	Sonya Paddock	Mayor
Walcott	Jackie Huston	Deputy City Clerk
Bettendorf Community Schools	Colleen Kauffman	Manager of Operations
Davenport Community Schools	Kristy Kleinsmith	Administrative Assistant
Davenport Community Schools	Mike Maloney	Director of Operations
Eastern Iowa Community College	Matthew Schmit	Facilities Manager
North Scott Community Schools	Joe Stutting	Superintendent
Pleasant Valley School District	Jim Spellhaug	Superintendent
Bi-State	Gena McCullough	Planning Director
Bi-State	Brandon Melton	Senior Planner

APPENDIX II-2 ADVISORY COMMITTEE INVITATION LETTER

Bi-State Regional Commission
Serving local governments in Muscatine and Scott Counties, Iowa;
Henry, Mercer and Rock Island Counties, Illinois.

OFFICERS:
CHAIR
Carol Earnhardt
VICE-CHAIR
Ken "Moose" Maranda
SECRETARY
Kathy Carroll-Duda
TREASURER
Frank Klipsch
MUNICIPAL REPRESENTATIVES:
City of Davenport
Frank Klipsch, Mayor
Jason Gordon, Alderperson
Kerri Tompkins, Alderperson
Randy Moore, Citizen
City of Rock Island
Mike Thoms, Mayor
David Geenen, Alderperson
City of Moline
Stephanie Acri, Mayor
Mike Waldron, Alderperson
City of Bettendorf
Bob Gallagher, Mayor
City of East Moline
Reggie Freeman, Mayor
City of Muscatine
Diana Broderson, Mayor
City of Kewanee
Steve Looney, Mayor
City of Silvis; Villages of Andalusia, Carbon Cliff, Coal Valley, Cordova, Hampton, Hillsdale, Milan, Oak Grove, Port Byron, and Rapids City
Duane Dawson, Mayor, Milan
Cities of Aledo, Colona, Galva, Geneseo; Villages of Alpha, Andover, Annawan, Atkinson, Cambridge, New Boston, Orion, Sherrard, Viola, Windsor, and Woodhull
Kathy Carroll-Duda, Mayor, Geneseo
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
Roger Gradert, Chair
Erik Brown, Member
Rex Kiser, Member
Mercer County
Vacant
Muscatine County
Jeff Sorensen, Chair
Bob Howard, Member
Rock Island County
Ken "Moose" Maranda, Chair
Kim Callaway-Thompson, Member
Scott Terry, Member
Elizabeth Sherwin, Citizen
Scott County
Carol Earnhardt, Chair
Ken Beck, Member
Tony Knobbe, Member
Jazmin Newton-Butt, Citizen
PROGRAM REPRESENTATIVES:
Ralph H. Heninger
Jerry Lack
Nathaniel Lawrence
Marcy Mendenhall
Rick Schloemer
Bill Stoermer
Jim Tank
Executive Director
Denise Bulat

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To All Organizations and Interested Parties:

This email is to invite you or another representative of your organization to participate in the planning process to develop a multi-jurisdictional local hazard mitigation plan for Scott County and its participating municipalities. Scott County was awarded Pre-Disaster Mitigation Grant funding in February 2016 from the Federal Emergency Management Agency (FEMA) to update the plan. Scott County contracted with Bi-State Regional Commission to guide the preparation of a local hazard mitigation plan update. 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 deadline has been expedited to address a change in FEMA policies to grant waivers for lapsed plans that was noted shortly prior to the plan's expiration date, and as part of a pre-disaster hazard mitigation grant application by one of the participating communities.

Those participating in the plan update are asked to review the updated draft document. A meeting will be held on **Monday, November 27, 2017 at 5:00 p.m.** at the Scott Emergency Communications Center, 1100 E 46th Street, Davenport Iowa to accept comments prior to submitting the document to FEMA. The plan materials and information can be found at: https://www.scottcountyiowa.com/planning/hazard-mitigation-plan.

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).

Please let us know if you or another representative of your organization will be at the meeting, so that we may develop an accurate contact list. Also, if you know of other organizations that should be included in the plan review process, please let us know. Bi-State Regional Commission will be assisting the county in completing the plan document. You or your designated representative may be contacted regarding correspondence and questions. My contact information is provided below. Thank you for your assistance with finalizing the planning process, and we look forward to seeing you or another representative on November 14.

Sincerely:

Brandon Melton, Senior Planner
Bi-State Regional Commission

1504 Third Ave, P.O. Box 3368
Rock Island, IL 61204-3368
Phone: 309-793-6302, Ext. 122
Fax: 309-793-6305
Website: www.bistateonline.org

BM/sg
P:\USERS\WORD\Hazard Mitigation\Scott County\Scott Co Haz Mit Plan 2018\Advisory Committee Invitation.docx

APPENDIX II-3 ADVISORY COMMITTEE LIST

Scott County Multi-Jurisdictional Hazard Mitigation Advisory Committee

Organization	Contact Name	Title
Neighboring Communities		
Rock Island County EMA	Jerry Shirk	Coordinator
Muscatine County EMA	Matt Shook	Director
Cedar County EMA	Tim Malott	Coordinator
Clinton County EMA	Chance Kness	Coordinator
City of Durant	Scott Spengler	Mayor
Bennett CSD	David Larson	Superintendent
Calamus/Wheatland CSD	Lonnie Luepker	Superintendent
Durant CSD	Duane Bennett	Superintendent
State. Regional and Local Government Representatives		
National Weather Service	Ms. Donna Dubberke	Meterologist
Iowa State University Scott County Extension	Becky Bray	County Extension Director
Iowa State Patrol District 12 Office	Lt. Brian Votroubek	Lieutenant
U.S. Geological Survey - Iowa Water Science Center	Kevin Richards	Center Director
Scott County Community Services	Lori Elam	Director
U.S. Coast Guard Marine Safety Detachment Quad Cities	Ana Fuschetto	Department Supervisor
Scott County Humane Society	Executive Director	Pamela Arndt
IHSEMD	Dan Schmitz	Deputy State Hazard Mitigation Officer
Iowa NFIP Coordinator	Mr. Bill Cappuccio	State Floodplain Manager
Iowa State Climatologist	Mr. Harry Hillaker	Climatologist
Iowa State Geologist	Dr. Robert Libra	Geologist
Rock Island Arsenal	Scott Starns	(309) 206-5763
USACE	Mr. Jerry Skalak	Project Manager / Floodplain Manager
USACE	Christopher Haring	
USACE	Allan Tamm	

Organization	Contact Name	Title
Neighborhood Groups and Non-Profits		
Red Cross	Brooke Mehaffey	Unit Director
United Way	Scott Crane	President
Muscatine County Conservation Board	Curt Weiss	Director
North Scott Press	Scott Campbell	Editor
Scott County Sheriff	Tim Lane	Sherrif
Scott County Health Department	Denny Coon	Public Health Safety Coordinator
Waste Commission of Scott County	Kurt Liske	Communication Specialist
MidAmerican Energy		Business & Community Development
Iowa American Water	Mary Jane Midgett	Director of Operations
Quad Cities Chamber	Kristen Glass	Interim CEO
Community Foundation of the Great River Bend	Sherry Ristau	President & CEO
St Ambrose University	Calvin Cooper	Assistant Director of Security
Davenport Airport	Nicole Gleason	Public Works Director
Civil Air Patrol	Major Rob Smith	Commander
Non-participating Communities		
McCausland	Sheila Bosworth	City Clerk
Princeton	Katie Enloe	City Clerk
New Liberty	Cindy Slininger	City Clerk

APPENDIX II-4 PUBLIC HEARING INFORMATION AND COMMENTS

COPY OF NOTICE
EXHIBIT "A"

AFFIDAVIT OF PUBLICATION

SEP 0 6 2016

NOTICE of a Public Meeting
Scott County is in the process of preparing an update of the 2012 Scott County Multi-Jurisdictional Hazard Mitigation Plan. An introductory public meeting will be held on Thursday September 15, 2016 at 6:00 pm in the Scott County Administrative Center First Floor Conference Room, 600 West Fourth Street, Davenport, Iowa. Those present will also have the opportunity to review the current FEMA-approved plan and provide comments for updates. Scott County received a Hazard Mitigation Grant Program (HMGP) grant from the Federal Emergency Management Agency (FEMA). Grant administration comes through the Iowa Homeland Security Emergency Management Division (IHSEMD). In addition to Scott County, jurisdictions eligible to participate in the include the Cities of Bettendorf, Blue Grass, Buffalo, Davenport, Dixon, Donahue, Eldridge, LeClaire, Long Grove, Maysville, McCausland, New Liberty, Panorama Park, Princeton, Riverdale, and Walcott. The School Districts have also been invited to participate in the plan. Public participation and comments are invited throughout the planning process and development. All planning meetings are open to the public. The scheduled meetings, related documents, and plan drafts will be posted for review on the County's website at http://www.scottcountyiowa.com/planning/hazard-mitigation-plan. Questions regarding the ongoing plan process may be directed to Bi-State Regional Commission (309) 793-6300 or the Scott County Planning & Development Department (563) 326-8643.

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:

4-1

The affiant further deposes and says that all of the facts set forth in the foregoing affidavit are true as he/she verily believes.

Subscribed and sworn to before me by said affiant this 1

day of September 20 16

STEPHEN H. THOR
Commission Number 168839
My Commission Expires
3-24-17

Notary Public in and for Scott County, Iowa

COPY OF NOTICE
EXHIBIT "A"

NOTICE of a Public Meeting
Scott County is in the process of preparing an update of the 2012 Scott County Multi-Jurisdictional Local Hazard Mitigation Plan. An introductory public meeting will be held on Thursday September 15, 2016 at 6:00 pm in the Scott County Administrative Center First Floor Conference Room, 600 West Fourth Street, Davenport, Iowa. Those present will also have the opportunity to review the current FEMA-approved plan and provide comments for updates. Scott County received a Hazard Mitigation Grant Program (HMGP) grant from the Federal Emergency Management Agency (FEMA). Grant administration comes through the Iowa Homeland Security Emergency Management Division (IHSEMD). In addition to Scott County, jurisdictions eligible to participate in the include the Cities of Bettendorf, Blue Grass, Buffalo, Davenport, Dixon, Donahue, Eldridge, LeClaire, Long Grove, Maysville, McCausland, New Liberty, Panorama Park, Princeton, Riverdale, and Walcott. The School Districts have also been invited to participate in the plan. Public participation and comments are invited throughout the planning process and development. All planning meetings are open to the public. The scheduled meetings, refated documents, and plan drafts will be posted for review on the County's website at http://www.scottcountyiowa.com/planning/hazard-mitigation-plan. Questions regarding the ongoing plan process may be directed to Bi-State Regional Commission (309) 793-6300 or the Scott County Planning & Development Department (563) 326-8643.

AFFIDAVIT OF PUBLICATION

STATE OF IOWA }
SCOTT COUNTY, } ss.

SEP 08 2016

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:

9-1

The affiant further deposes and says that all of the facts set forth in the foregoing affidavit are true as he/she verily believes.

Subscribed and sworn to before me by said affiant this 1

day of September 20 16

NOTARIAL SEAL IOWA
STEPHEN H. THOR
Commission Number 168839
My Commission Expires
3-24-17

Notary Public in and for Scott County, Iowa

Bi-State
Regional Commission
1504 Third Avenue. P.O. Box 3368
Rock Island, IL 61204-3368
Phone: (309) 793-6300 • Fax: (309) 793-6305
Website: http://www.bistateonline.org

SERVICE REPORT

COUNTY/COMMUNITY: SCOTT COUNTY

DATE: 9/15/16
FILED BY: BRANDON MELTON

MEETING: SCOTT COUNTY HAZARD MITIGATION PLAN UPDATE – KICKOFF MEETING

PRESENT: See attached sign-in sheet

Ms. Berkley introduced herself and Mr. Melton. Ms. Berkley provided a presentation on Scott Counties existing Hazard Mitigation Plan and provided background information on hazard mitigation planning in general. She explained that participating in and adopting a hazard mitigation plan allows communities to be eligible for FEMA Hazard Mitigation assistance Grant Programs. It is required that the plan be updated every 5 years, hence this update effort. Ms. Berkley went on to explain that the update will only include the required natural hazards bringing the number of hazard profiles down from 40 to 16. Ms. Berkley elaborated on the funding source and timeline of the project. She also outlined the role of participating jurisdictions noting that each jurisdiction should confirm whether or not they will participate by November 1, 2016. Ms. Berkley informed the group on the meeting structure of the project as well as information regarding the role of an advisory committee to be formed. She emphasized that public input would be very important to the planning process. All meetings will be open to the public and there will be a 30-day comment period before the plan is submitted to FEMA. Any comments or questions should be directed to Ms. Berkley at her contact information provided.

Date
Service Reports\

MEETING ATTENDANCE RECORD
MEMBERS, GUESTS & STAFF
(Please Print Legibly)

Meeting of: Scott County Multi-Jurisdictional Hazard Mitigation Planning Committee Meeting

Date: September 15, 2016 Time: 6:00 P.M. To _____ Minutes: Yes X No _____

Place of Meeting: Scott County Administrative Building, First Floor Board Room, 600 W. 4th Street, Davenport, IA

Name:	Title/Representing:	Email:
1. Ken Schoenthaler	mayor of Donahue	Schoenyenko2@aol.com
2. ED CHATE	City Admin. - LECLAIRE	ECHATE@LECLAIRE.IA.GOV
3. Joel McCubbin	City of Long Grove	CityofLG@NexinetUSA.net
4. Greg Beck	City of Bettendorf	gbeck@bettendorf.org
5. Jeff Bladel	city of DAVENPORT	JBladel@ci.davia.ia.us
6. Joe Stuffing	North Scott School	joe.stuffing@northscott.k12.ia.us
7. WAYNE WILLE	CITY OF DAVENPORT	wtw@ci.davenport.ia.us
8. Colleen Kauffman	Manager of Operations Bett. Schools	ckauffman@bettendorf.k12.ia.us
9. T. J. Behning	CITY OF BUFFALO	BUFFALOPD419@MCHSI.COM
10. Tim Huey	Scott County	
11. Dave Donovan	Scott County EMA	
12. Sonya Paddock	City of Riverdale	Riverdalemayor@mchsi.com
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No public comments were received at the September 15, 2016 Public Kick-Off Meeting

Scott County (/)

GOVERNMENT (/GOVERNMENT) SERVICES (/SERVICES)

COMMUNITY (/SCOTT-COUNTY-COMMUNITY)

Home (/) » Government (/government) » Planning & Development (/planning)

PLANNING & DEVELOPMENT (/PLANNING)

- Tax Deed Properties (/planning/tax-deed-properties)
- Calendar (/planning/calendar)

Building Permits

- Building Permits (/planning/building-permits)

Planning & Zoning Commission

- Rezoning Process (/planning/rezoning-process)
- About the Commission (/planning/about-

HAZARD MITIGATION PLAN

(https://www.scottcountyiowa.com/sites/default/files/Images/pages/IMG_4251-960x640.jpg)

Scott County Multi-Jurisdictional Hazard Mitigation Plan

Plan Development:

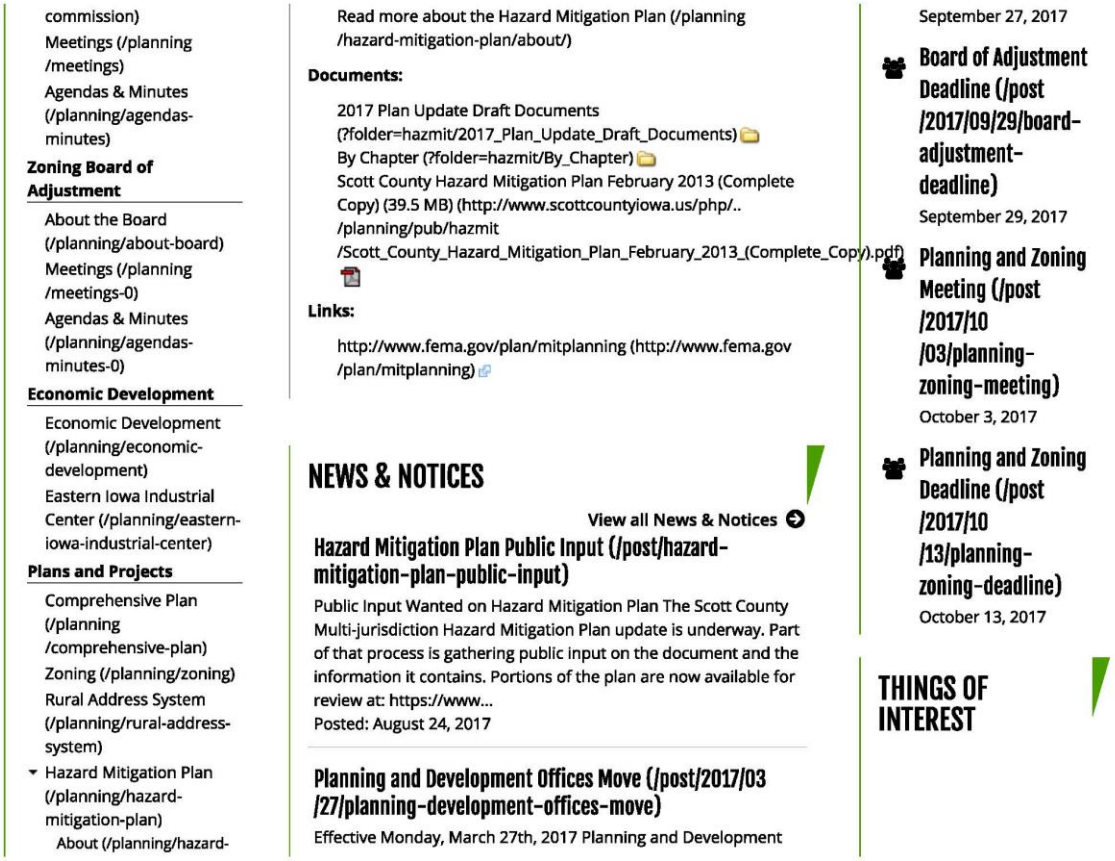
Scott County was awarded a grant from the Federal Emergency Management Agency (FEMA) awarded under its Hazard Mitigation Grant Program (HMGP) to develop a Multi-Jurisdiction Local Hazard Mitigation Plan. The grant is administered through the Iowa Homeland Security and Emergency Management Division (IHSEMD).

MEETINGS & EVENTS

View all Meetings & Events

Planning and Zoning Deadline (/post/2017/09/22/planning-zoning-deadline)
September 22, 2017

CANCELLED
Zoning Board of Adjustment Meeting (/post/2017/09/27/zoning-board-adjustment-meeting)



commission)
Meetings (/planning /meetings)
Agendas & Minutes (/planning/agendas-minutes)

Zoning Board of Adjustment

About the Board (/planning/about-board)
Meetings (/planning /meetings-0)
Agendas & Minutes (/planning/agendas-minutes-0)

Economic Development

Economic Development (/planning/economic-development)
Eastern Iowa Industrial Center (/planning/eastern-iowa-industrial-center)

Plans and Projects

Comprehensive Plan (/planning /comprehensive-plan)
Zoning (/planning/zoning)
Rural Address System (/planning/rural-address-system)
Hazard Mitigation Plan (/planning/hazard-mitigation-plan)
About (/planning/hazard-

Read more about the Hazard Mitigation Plan (/planning /hazard-mitigation-plan/about/)

Documents:

2017 Plan Update Draft Documents (?folder=hazmit/2017_Plan_Update_Draft_Documents)
By Chapter (?folder=hazmit/By_Chapter)
Scott County Hazard Mitigation Plan February 2013 (Complete Copy) (39.5 MB) (http://www.scottcountyiowa.us/php/.. /planning/pub/hazmit /Scott_County_Hazard_Mitigation_Plan_February_2013_(Complete_Copy).pdf)

Links:

http://www.fema.gov/plan/mitplanning (http://www.fema.gov /plan/mitplanning)

NEWS & NOTICES

View all News & Notices

Hazard Mitigation Plan Public Input (/post/hazard-mitigation-plan-public-input)

Public Input Wanted on Hazard Mitigation Plan The Scott County Multi-jurisdiction Hazard Mitigation Plan update is underway. Part of that process is gathering public input on the document and the information it contains. Portions of the plan are now available for review at: https://www...
Posted: August 24, 2017

Planning and Development Offices Move (/post/2017/03 /27/planning-development-offices-move)

Effective Monday, March 27th, 2017 Planning and Development

September 27, 2017

Board of Adjustment Deadline (/post /2017/09/29/board-adjustment-deadline)

September 29, 2017

Planning and Zoning Meeting (/post /2017/10 /03/planning-zoning-meeting)

October 3, 2017

Planning and Zoning Deadline (/post /2017/10 /13/planning-zoning-deadline)

October 13, 2017

THINGS OF INTEREST

TENTATIVE AGENDA
SCOTT COUNTY BOARD OF SUPERVISORS
October 30 - November 3, 2017

Tuesday, October 31, 2017

Committee of the Whole - 8:00 am
Board Room, 1st Floor, Administrative Center

____ 1. Roll Call: Knobbe, Kinzer, Holst, Beck, Earnhardt

Presentation

____ 2. Recognizing the retirement of Ardel Wright, Attorney's Office (Item 2) .....8:30 a.m.

____ 3. Ribbon cutting for Juvenile Detention Center (Item 3).....9:00 a.m.

Facilities & Economic Development

____ 4. Third reading of an ordinance to place a yield sign on 310th St. at 52nd Ave. (Item 4)

____ 5. Weight restrictions on various county bridges. (Item 5)

____ 6. Farm to Market Review Board application. (Item 6)

____ 7. Discussion of Public Hearing and presentation of Planning and Zoning Commission recommendation on the application of Joseph and Lori Cawiezell to rezone 6.56 acres, more or less, from Agricultural-Preservation (A-P) to Agricultural-General (A-G), legally described as part of the NW¼ of the NW¼ of Section 2, Sheridan Township, located at 25820 162nd Avenue. Public Hearing hearing on this item 5:00 November 2nd. (Item 7)

____ 8. Discussion of the City of Bettendorf's proposed TIF District and amended Urban Renewal Plan for the Ascentra Credit Union project in downtown Bettendorf. (Item 8)

____ 9. 2017 Hazard Mitigation Plan Update Adoption. Public Hearing hearing on this item 5:00 November 2nd. (Item 9)

____ 10. Scott County exterior campus signage. (Item 10)

____ 11. Courthouse Clerk of Court asbestos abatement. (Item 11)

Human Resources

____ 12. Staff appointments. (Item 12)

Health & Community Services

____ 13. First of three readings to amend Scott County Ordinance Chapter 23 entitled "Private Sewage Disposal Systems" and Chapter 24 entitled "Non Public Water Supply Wells". (Item 13)

____ 14. Tax suspension requests. (Item 14)

Finance & Intergovernmental

____ 15. Network Monitoring Software Maintenance and Support. (Item 15)

____ 16. Request to abate State of Iowa taxes. (Item 16)

____ 17. Discussion of Fireworks Ordinance. (Item 17)

Other Items of Interest

____ 18. Recognizing November as "Diabetes Awareness Month" at the November 2nd Board Meeting at 5:00. (Item 18)

____ 19. Beer/liquor license renewal for Lady Di's Parkview Inn.

____ 20. Adjourned.

Moved by _____ Seconded by _____
Ayes
Nays

Thursday, November 2, 2017

Regular Board Meeting - 5:00 pm
Board Room, 1st Floor, Administrative Center

Public Hearings

____ 1. Public hearing relative to an application to rezone 6.56 acres, more or less, from Agricultural-Preservation (A-P) to Agricultural-General (A-G) in Sheridan Township.

____ 2. Public Hearing relative to 2017 Hazard Mitigation Plan Update Adoption.

No public comments were received at the October 31, 2017 Public Hearing at the Scott County Committee of the Whole Meeting

PLANNING & DEVELOPMENT
600 West Fourth Street
Davenport, Iowa 52801-1106
E-mail: planning@scottcountyiowa.com
Office: (563) 326-8643 Fax: (563) 326-8257

Timothy Huey
Director

NOTICE OF BOARD OF SUPERVISORS
PUBLIC HEARING ON ADOPTION OF AN UPDATE TO THE
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Public Notice is hereby given that the Scott County Board of Supervisors will hold a public hearing to take comments on the adoption of an update to the Multi-Jurisdictional Hazard Mitigation Plan for Scott County. The public hearing will be held on **Thursday, November 2nd 2017**, in the First Floor Board Room of the Scott County Administrative Center, 600 West 4th Street, Davenport, Iowa, at **5:00 P.M.**

Scott County, with the assistance of the Bi-State Regional Commission, has prepared a Multi-Jurisdictional Hazard Mitigation Plan. Jurisdictions participating in this plan have included 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. The original Multi-Jurisdictional Hazard Mitigation Plan was adopted February 2, 2012. The Board of Supervisors will hear comments on the current draft of the update to the Multi-Jurisdictional Hazard Mitigation Plan on Thursday, November 2nd 2017, in the First Floor Board Room of the Scott County Administrative Center, 600 West 4th Street, Davenport, Iowa, at 5:00 P.M.

A copy of the final draft of the update to the Multi-Jurisdictional Hazard Mitigation Plan is available for review at the Planning and Development Department. If you have questions or comments regarding the public hearing, please email, call or write the Planning and Development Department, Scott County Administrative Center, 600 West 4th Street, Davenport, Iowa 52801, (563) 326-8643, planning@scottcountyiowa.com or attend the hearing.

Timothy Huey
Director

Agenda

Scott County Multi-Jurisdictional Hazard Mitigation Plan Update
Advisory Committee Meeting

Monday, November 27, 2017; 5:00 p.m.
Scott County Emergency Communication Center
1100 E 46th St.
Davenport

1. **Introductions**
2. **Presentation**
    a. **Brandon Melton (Bi-State Regional Commission) to present on Hazard Mitigation Planning Process**
3. **Roundtable Discussion with Stakeholders**
4. **Public Comments**
5. **Adjournment**

MEETING ATTENDANCE RECORD
MEMBERS, GUESTS & STAFF
(Please Print Legibly)

Meeting of: Scott County Multi-Jurisdictional Hazard Mitigation Advisory Committee Meeting

Date: November 27, 2017 Time: 5:00 P.M. To _____ Minutes: Yes X No _____

Place of Meeting: Scott County Emergency Communications Center, 1100 East 46th Street, Davenport, Iowa

Name:	Title/Representing:	Email:
1. Brandon Melton	Senior Planner/ Bi-State Regional Commission	bmelton@bistateonline.org
2. GENA McCULLOUGH	BSRC	gmccullough@bistateonline.org
3. Dave Donovan	Scott Co. EMA	david.donovan@scottcountyiowa.com
4. Ana Fuschetto	U.S. Coast Guard	Ana.V.Fuschetto@uscg.mil
5. Ken Schoenthaler	mayor of Donahue	Schoenyenko2@aol.com
6. Jordan Schweda	MCJC	jordan.schweda@mail.com
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No public comments were received at the November 27, 2017 Advisory Committee Meeting

APPENDIX II-5 2015 CENSUS DATA

2015 Census Data

This plan utilized the newest census data that was available at the time complied. Table A-II-5 shows the populations for Scott County and all jurisdictions from 1950 – 2015.

Table A-II-5
Scott County Population 1950 - 2010

AREA	1950	1960	1970	1980	1990	2000	2010	2015	% CHANGE 2010-2015
SCOTT COUNTY	100,698	119,067	142,687	160,022	150,973*	158,689*	165,224	169,994	4.82%
City of Bettendorf	5,132	10,534	22,126	27,381	28,139*	31,258*	33,217	34,663	6.69%
City of Blue Grass	337	568	1,032	1,377	1,214	1,169	1,452	1,439	4.12%
City of Buffalo	695	1,088	1,513	1,441	1,250*	1,321	1,270	1,217	-2.17%
City of Davenport	74,549	88,981	98,469	103,264	95,333*	98,359	99,685	101,863	3.60%
City of Dixon	208	280	276	312	228*	276	247	225	-6.64%
City of Donahue	105	133	216	289	316	293	346	366	0.00%
City of Eldridge	376	583	1,535	3,279	3,378	4,159	5,651	6,017	13.12%
City of LeClaire	1,124	1,546	2,520	2,899	2,734	2,868*	3,765	3,888	9.18%
City of Long Grove	156	182	269	596	605	597	808	894	-5.70%
City of Maysville	70	126	170	151	170	163	176	338	44.44%
City of McCausland	150	173	226	381	308	299	291	139	-39.83%
City of New Liberty	126	145	141	136	139	121	137	148	-1.33%
City of Panorama Park	N/A	140	219	145	127	131*	129	102	-26.62%
City of Princeton	495	580	633	965	904*	946	886	1106	14.49%
City of Riverdale	N/A	477	684	462	419*	653*	405	476	-9.16%
City of Walcott	480	664	989	1,425	1,356	1,528	1,629	1,575	0.32%

Source: U.S. Census Bureau, Censuses 1950-2010; American Community Survey, 5 Year Estimates 2015
* Indicates corrected count populations

APPENDIX III-1 INDIVIDUAL JURISDICTION HAZARD SCORES

BETTENDORF

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	3	4	**1.90**
Drought	2	2	1	4	**2.05**
Earthquake	1	2	4	4	**2.05**
Expansive Soils	1	1	1	1	**1.00**
Extreme Heat	3	2	1	4	**2.50**
Flash Flood	3	3	4	4	**3.25**
Grass and Wildland Fires	3	2	4	3	**2.85**
Landslide/Sinkhole	1	2	4	3	**1.95**
Levee Failure	1	4	4	4	**2.65**
River Flood	3	2	1	4	**2.50**
Severe Winter Storm	3	2	2	3	**2.55**
Thunderstorm, Lightning, Hail	4	2	4	3	**3.30**
Tornado	2	2	4	4	**2.50**
Windstorm	3	3	3	3	**3.00**
AVERAGE SCORE	**2.20**	**2.20**	**2.93**	**3.40**	**0.00**

BLUE GRASS

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	4	1	**1.45**
Drought	3	2	1	4	**2.50**
Earthquake	1	1	4	2	**1.55**
Expansive Soils	1	1	4	1	**1.45**
Extreme Heat	3	2	1	3	**2.40**
Flash Flood	2	2	1	3	**1.95**
Grass and Wildland Fires	3	2	4	2	**2.75**
Landslide/Sinkhole	1	1	4	1	**1.45**
Levee Failure	1	1	4	1	**1.45**
River Flood	1	1	1	4	**1.30**
Severe Winter Storm	4	2	1	3	**2.85**
Thunderstorm, Lightning, Hail	4	2	1	3	**2.85**
Tornado	4	2	4	4	**3.40**
Windstorm	4	2	1	4	**2.95**
AVERAGE SCORE	**2.40**	**1.60**	**2.53**	**2.53**	**0.00**

BUFFALO

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	1	1	**1.00**
Drought	2	1	1	4	**1.75**
Earthquake	1	1	1	1	**1.00**
Expansive Soils	2	1	1	4	**1.75**
Extreme Heat	3	2	1	3	**2.40**
Flash Flood	2	2	2	2	**2.00**
Grass and Wildland Fires	3	1	4	1	**2.35**
Landslide/Sinkhole	4	3	4	4	**3.70**
Levee Failure	1	1	1	3	**1.20**
River Flood	4	2	1	4	**2.95**
Severe Winter Storm	4	1	1	2	**2.45**
Thunderstorm, Lightning, Hail	4	2	2	2	**2.90**
Tornado	2	3	4	3	**2.70**
Windstorm	4	2	4	2	**3.20**
AVERAGE SCORE	**2.60**	**1.67**	**2.13**	**2.53**	**0.00**

DAVENPORT

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	1	4	**1.60**
Drought	1	1	1	4	**1.30**
Earthquake	1	2	4	4	**2.05**
Expansive Soils	1	1	4	3	**1.65**
Extreme Heat	2	2	1	3	**1.95**
Flash Flood	4	3	3	4	**3.55**
Grass and Wildland Fires	2	2	4	2	**2.30**
Landslide/Sinkhole	1	1	4	3	**1.65**
Levee Failure	1	1	4	3	**1.65**
River Flood	3	2	1	4	**2.50**
Severe Winter Storm	4	1	1	3	**2.55**
Thunderstorm, Lightning, Hail	4	2	3	2	**3.05**
Tornado	2	3	4	1	**2.50**
Windstorm	3	2	4	1	**2.65**
AVERAGE SCORE	**2.20**	**1.73**	**2.87**	**2.87**	**0.00**

DIXON

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	2	3	**1.65**
Drought	2	2	1	4	**2.05**
Earthquake	1	4	4	1	**2.35**
Expansive Soils	1	2	4	3	**1.95**
Extreme Heat	2	2	1	3	**1.95**
Flash Flood	3	3	3	3	**3.00**
Grass and Wildland Fires	3	2	4	2	**2.75**
Landslide/Sinkhole	1	1	4	3	**1.65**
Levee Failure	1	2	2	4	**1.75**
River Flood	4	2	1	4	**2.95**
Severe Winter Storm	4	2	1	3	**2.85**
Thunderstorm, Lightning, Hail	4	2	2	2	**2.90**
Tornado	2	4	4	1	**2.80**
Windstorm	4	2	2	2	**2.90**
AVERAGE SCORE	**2.47**	**2.27**	**2.60**	**2.73**	**0.00**

DONAHUE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	4	4	**2.05**
Drought	2	2	4	4	**2.50**
Earthquake	1	1	4	1	**1.45**
Expansive Soils	1	1	4	1	**1.45**
Extreme Heat	2	2	2	4	**2.20**
Flash Flood	2	2	4	3	**2.40**
Grass and Wildland Fires	4	2	4	1	**3.10**
Landslide/Sinkhole	1	1	4	1	**1.45**
Levee Failure	1	1	4	4	**1.75**
River Flood	3	2	1	3	**2.40**
Severe Winter Storm	3	2	3	3	**2.70**
Thunderstorm, Lightning, Hail	4	2	4	2	**3.20**
Tornado	2	2	4	3	**2.40**
Windstorm	3	2	4	2	**2.75**
AVERAGE SCORE	**2.00**	**1.60**	**3.33**	**2.40**	**0.00**

ELDRIDGE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	1	1	**1.00**
Drought	3	2	1	4	**2.50**
Earthquake	3	1	4	1	**2.35**
Expansive Soils	2	1	1	1	**1.45**
Extreme Heat	4	1	1	3	**2.55**
Flash Flood	2	1	2	1	**1.60**
Grass and Wildland Fires	2	1	4	1	**1.90**
Landslide/Sinkhole	1	1	1	1	**1.00**
Levee Failure	1	1	1	1	**1.00**
River Flood	1	1	1	1	**1.00**
Severe Winter Storm	4	1	1	3	**2.55**
Thunderstorm, Lightning, Hail	4	1	4	1	**2.80**
Tornado	3	2	4	3	**2.85**
Windstorm	4	2	4	2	**3.20**
AVERAGE SCORE	**2.33**	**1.13**	**2.00**	**1.60**	**0.00**

LECLAIRE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	3	4	4	**2.35**
Drought	2	1	1	4	**1.75**
Earthquake	1	1	4	3	**1.65**
Expansive Soils	2	1	4	1	**1.90**
Extreme Heat	3	2	1	4	**2.50**
Flash Flood	3	2	4	3	**2.85**
Grass and Wildland Fires	2	2	4	3	**2.40**
Landslide/Sinkhole	1	1	4	3	**1.65**
Levee Failure	1	3	4	4	**2.35**
River Flood	3	2	1	4	**2.50**
Severe Winter Storm	3	1	1	3	**2.10**
Thunderstorm, Lightning, Hail	3	1	4	1	**2.35**
Tornado	2	2	4	4	**2.50**
Windstorm	3	2	4	3	**2.85**
AVERAGE SCORE	**2.20**	**1.73**	**3.20**	**3.13**	**0.00**

LONG GROVE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	4	4	**1.75**
Drought	2	2	1	4	**2.05**
Earthquake	1	2	4	4	**2.05**
Expansive Soils	1	1	2	3	**1.35**
Extereme Heat	2	2	1	3	**1.95**
Flash Flood	1	2	1	2	**1.40**
Grass and Wildland Fires	2	1	4	1	**1.90**
Hazardous Spills	1	2	4	2	**1.85**
Landslide/Sinkhole	1	1	1	3	**1.20**
Levee Failure	1	1	1	3	**1.20**
River Flood	1	1	1	1	**1.00**
Severe Winter Storm	3	3	1	3	**2.70**
Thunderstorm, Lighning, Hail	3	2	1	3	**2.40**
Tornado	2	3	1	3	**2.25**
Windstorm	3	3	1	3	**2.70**
AVERAGE SCORE	**1.67**	**1.80**	**1.87**	**2.80**	**0.00**

MAYSVILLE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	1	1	**1.00**
Drought	1	1	4	4	**1.75**
Earthquake	1	1	4	1	**1.45**
Expansive Soils	1	1	4	1	**1.45**
Extreme Heat	1	1	4	3	**1.65**
Flash Flood	1	1	1	1	**1.00**
Grass and Wildland Fires	2	1	4	3	**2.10**
Landslide/Sinkhole	1	1	1	1	**1.00**
Levee Failure	1	1	1	1	**1.00**
River Flood	1	1	1	1	**1.00**
Severe Winter Storm	2	2	1	3	**1.95**
Thunderstorm, Lightning, Hail	2	2	4	1	**2.20**
Tornado	1	1	4	1	**1.45**
Windstorm	2	1	2	2	**1.70**
AVERAGE SCORE	**1.27**	**1.13**	**2.67**	**1.87**	**0.00**

PANORAMA PARK

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	1	1	1	**1.00**
Drought	1	1	1	4	**1.30**
Earthquake	1	1	4	1	**1.45**
Expansive Soils	1	1	1	1	**1.00**
Extreme Heat	4	1	1	3	**2.55**
Flash Flood	2	2	3	2	**2.15**
Grass and Wildland Fires	1	1	4	1	**1.45**
Hazardous Spills					**0.00**
Landslide/Sinkhole	1	1	4	1	**1.45**
Levee Failure	1	1	1	1	**1.00**
River Flood	3	2	1	4	**2.50**
Severe Winter Storm	3	1	3	4	**2.50**
Thunderstorm, Lightning, Hail	4	2	2	2	**2.90**
Tornado	2	2	3	1	**2.05**
Windstorm	2	2	3	3	**2.25**
AVERAGE SCORE	**1.80**	**1.27**	**2.13**	**1.93**	**0.00**

PRINCETON

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	3	4	**1.90**
Drought	4	3	1	4	**3.25**
Earthquake	1	1	4	2	**1.55**
Expansive Soils	1	2	4	4	**2.05**
Extereme Heat	4	3	1	3	**3.15**
Flash Flood	4	3	2	4	**3.40**
Grass and Wildland Fires	4	2	4	3	**3.30**
Landslide/Sinkhole	2	2	4	4	**2.50**
Levee Failure	2	4	4	4	**3.10**
River Flood	4	4	1	4	**3.55**
Severe Winter Storm	4	1	1	3	**2.55**
Thunderstorm, Lighning, Hail	4	3	1	2	**3.05**
Tornado	4	4	4	4	**4.00**
Windstorm	4	3	1	1	**2.95**
AVERAGE SCORE	**2.87**	**2.47**	**2.33**	**3.07**	**0.00**

RIVERDALE

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	3	2	4	**2.05**
Drought	2	4	1	4	**2.65**
Earthquake	1	1	4	1	**1.45**
Expansive Soils	1	2	1	4	**1.60**
Extreme Heat	2	3	1	3	**2.25**
Flash Flood	3	2	3	3	**2.70**
Grass and Wildland Fires	4	1	4	1	**2.80**
Landslide/Sinkhole	1	1	4	4	**1.75**
Levee Failure	1	4	1	4	**2.20**
River Flood	4	4	1	4	**3.55**
Severe Winter Storm	4	3	1	3	**3.15**
Thunderstorm, Lightning, Hail	4	1	3	1	**2.65**
Tornado	2	4	4	4	**3.10**
Windstorm	4	2	3	2	**3.05**
AVERAGE SCORE	**2.27**	**2.33**	**2.20**	**2.80**	**0.00**

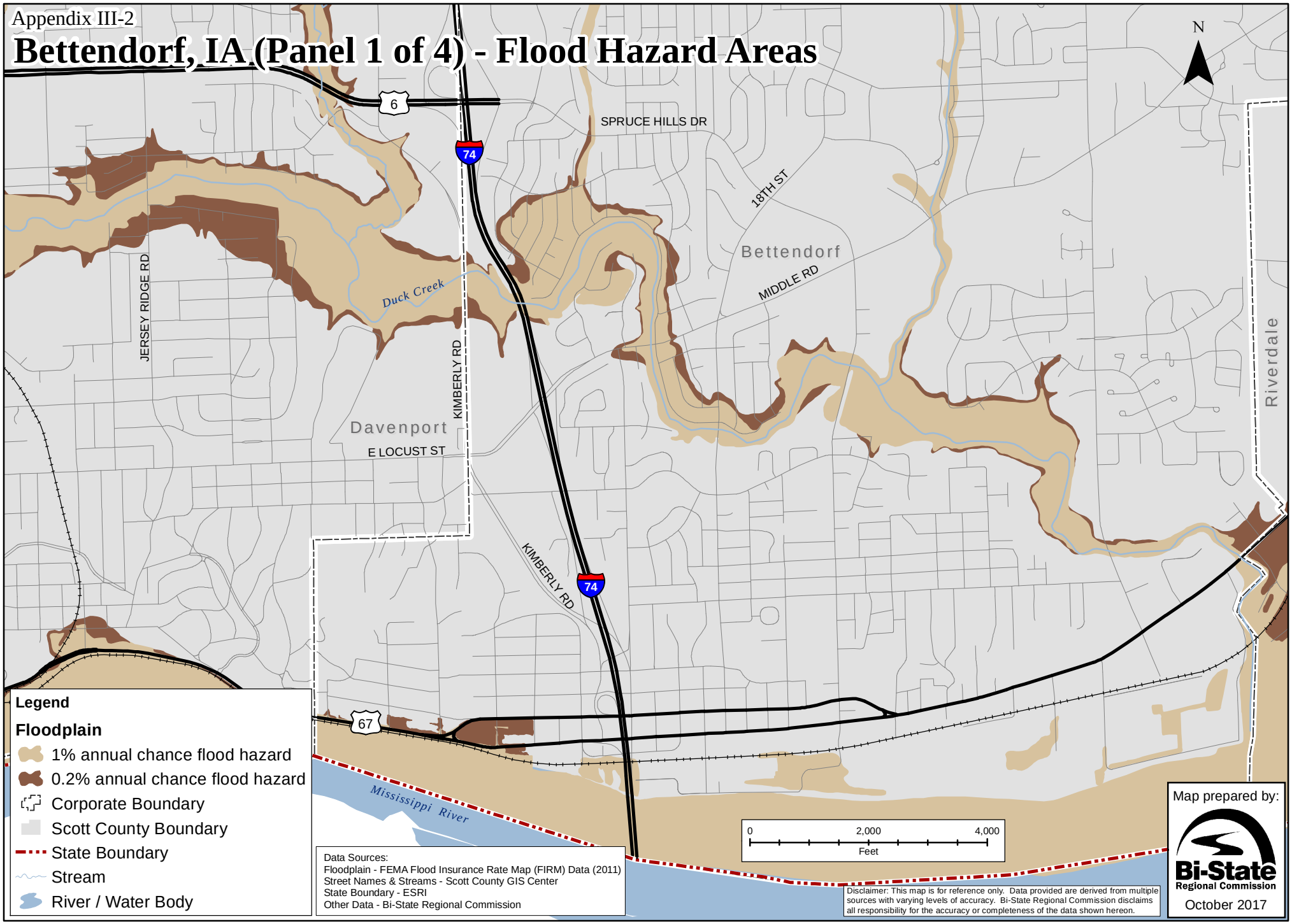
UNINCORPERATED SCOTT COUNTY

EVENT	PROBABILITY	MAGNITUDE/ SEVERITY	WARNING TIME	DURRATION	RISK
	Likelihood this will occur	*Possibility of death or injury, personal property, and infrastructure*	*Potential amount of warning time before hazard occurs*	*The duration of time that a hazard will affect the state*	*Weighted Score**
SCORE	*1 - Unlikely*	*1 - Negligible*	*1 - More than 24 hours*	*1 - Less than 6 hours*	*The higher the score the greater the risk*
	2 - Occasional	*2 - Limited*	*2 - 12 to 24 hours*	*2 - Less than 1 day*	
	3 - Likely	*3 - Critical*	*3 - 6 to 12 hours*	*3 - Less than 1 week*	
	4 - Highly Likely	*4 - Catastrophic*	*4 - Minimal or no warning (up to 6 hours)*	*4 - More than 1 week*	
Dams	1	2	2	3	**1.65**
Drought	2	2	1	4	**2.05**
Earthquake	1	4	4	1	**2.35**
Expansive Soils	1	2	4	3	**1.95**
Extreme Heat	2	2	1	3	**1.95**
Flash Flood	3	3	3	3	**3.00**
Grass and Wildland Fires	3	2	4	2	**2.75**
Landslide/Sinkhole	1	1	4	3	**1.65**
Levee Failure	1	2	2	4	**1.75**
River Flood	4	2	1	4	**2.95**
Severe Winter Storm	4	2	1	3	**2.85**
Thunderstorm, Lightning, Hail	4	2	2	2	**2.90**
Tornado	2	4	4	1	**2.80**
Windstorm	4	2	2	2	**2.90**
AVERAGE SCORE	**2.47**	**2.27**	**2.60**	**2.73**	**0.00**

APPENDIX III-2 SPECIAL FLOOD HAZARD AREA MAPS

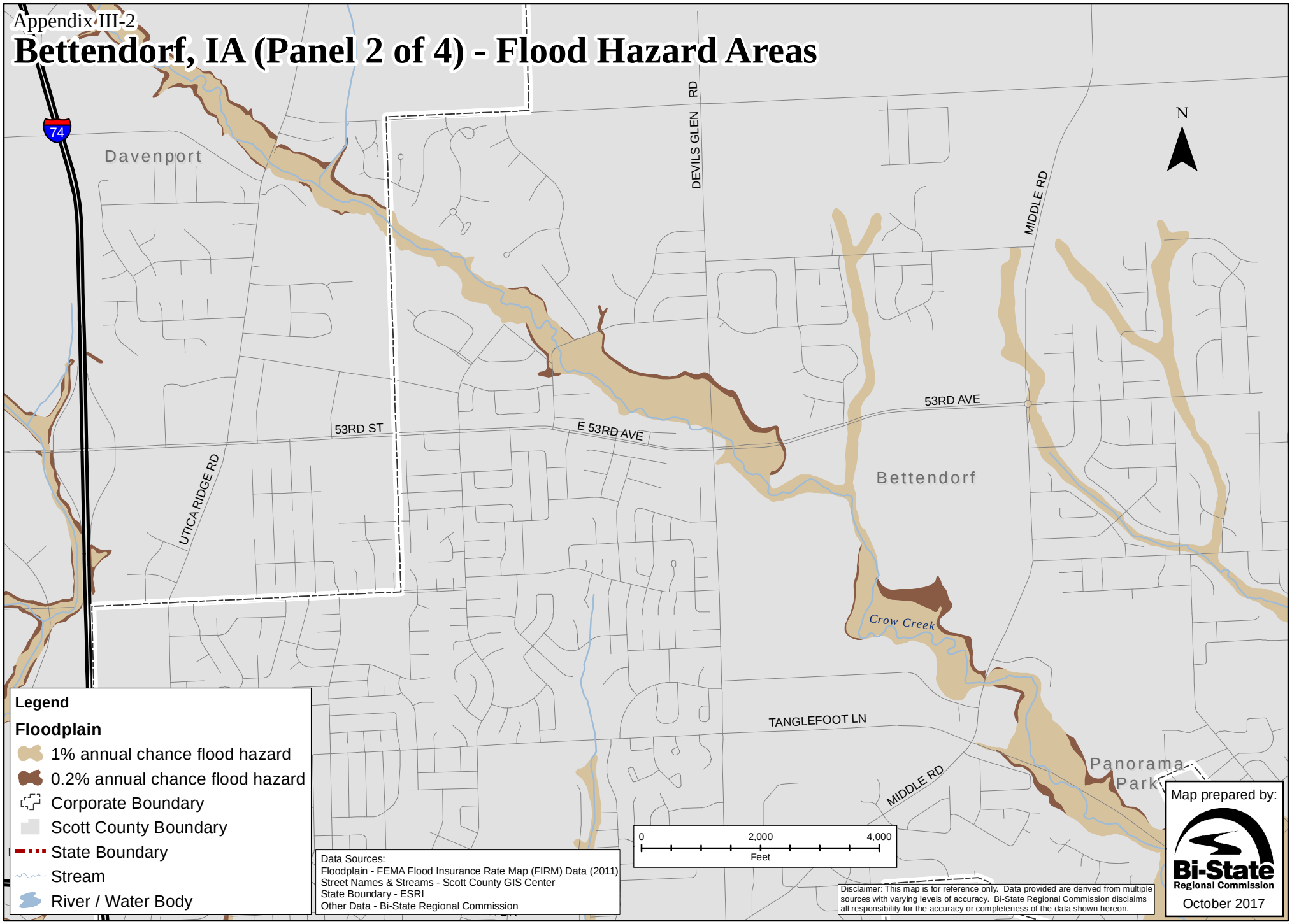
Appendix III-2

Bettendorf, IA (Panel 1 of 4) - Flood Hazard Areas



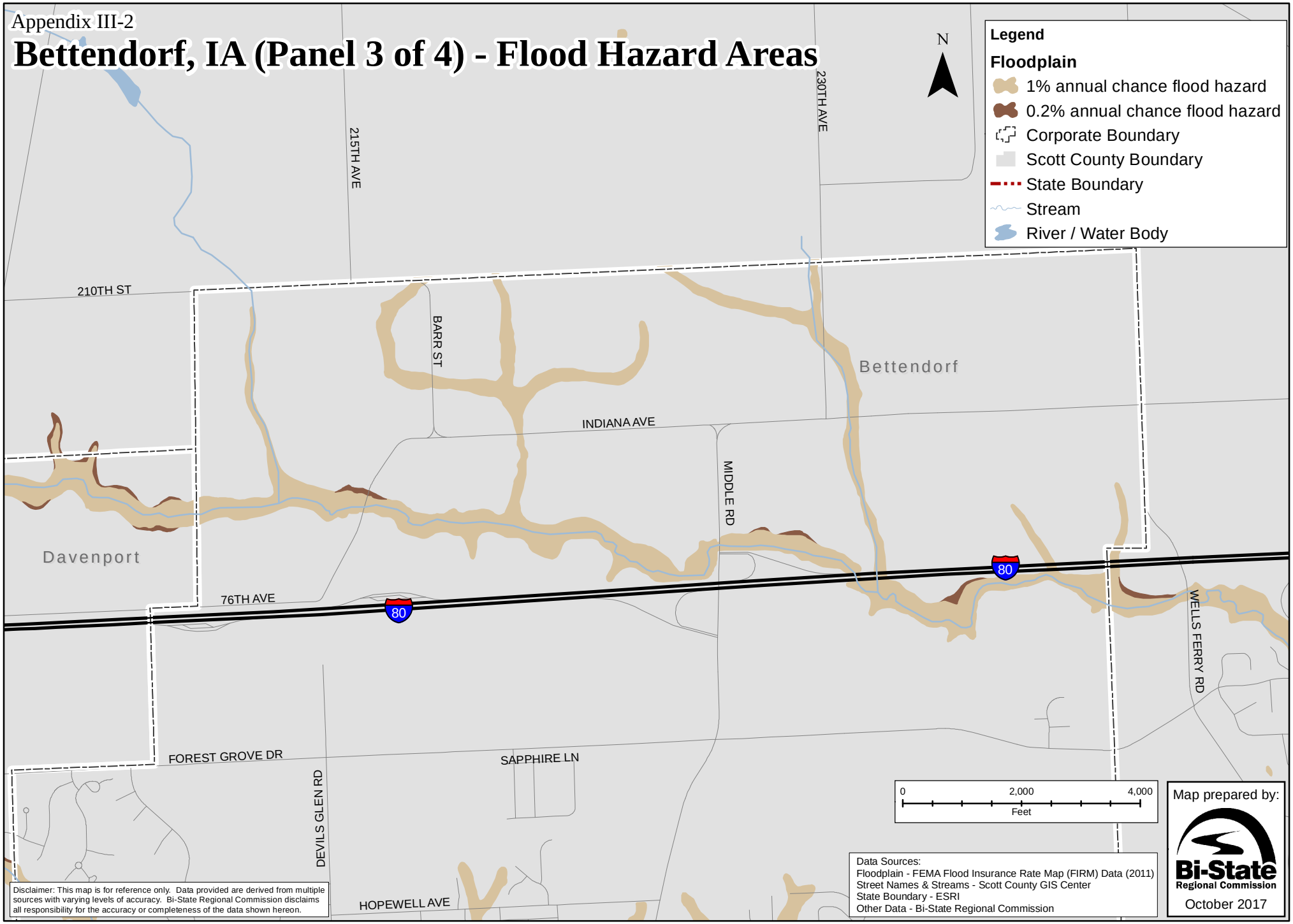
Appendix III-2

Bettendorf, IA (Panel 2 of 4) - Flood Hazard Areas



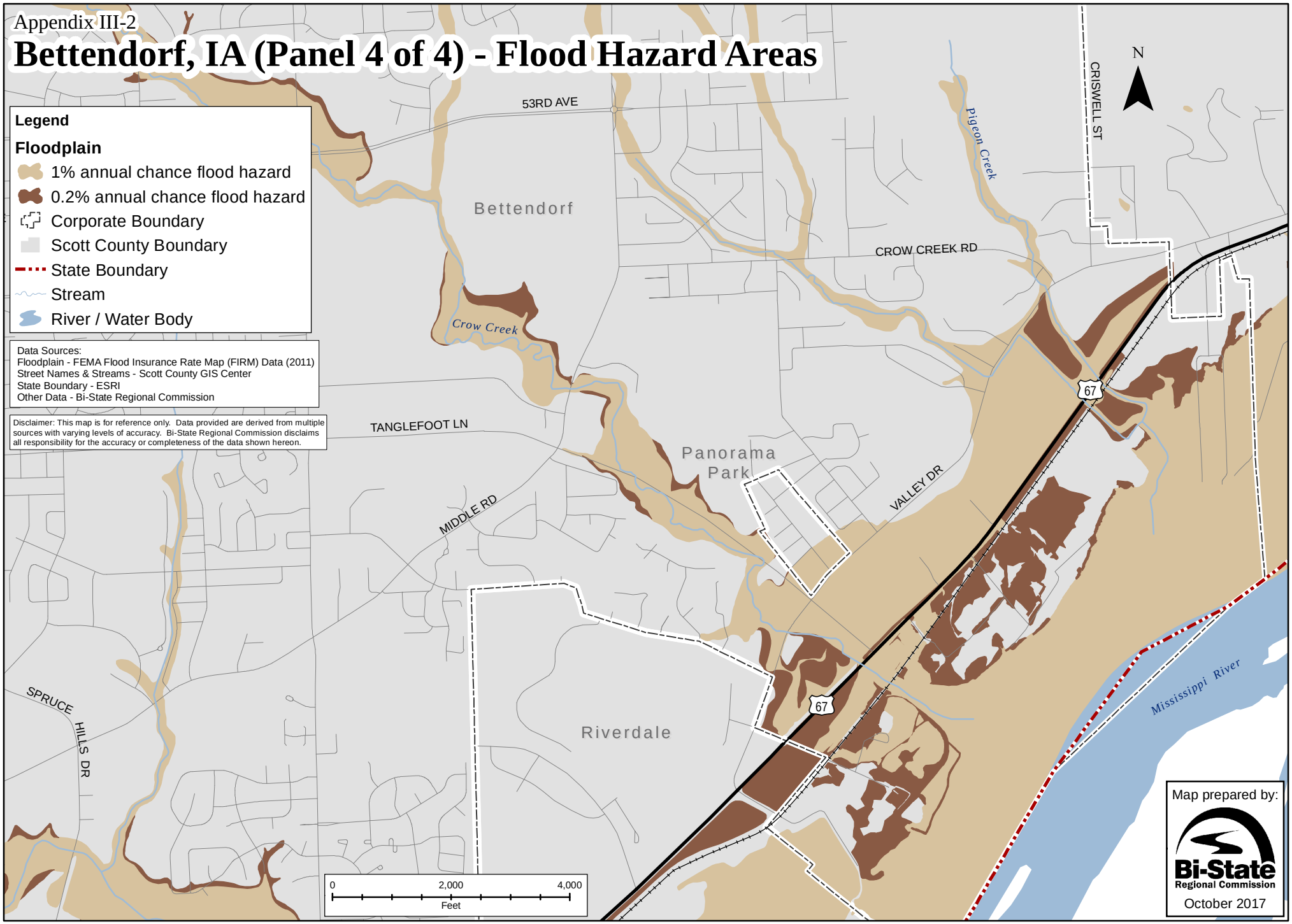
Appendix III-2

Bettendorf, IA (Panel 3 of 4) - Flood Hazard Areas



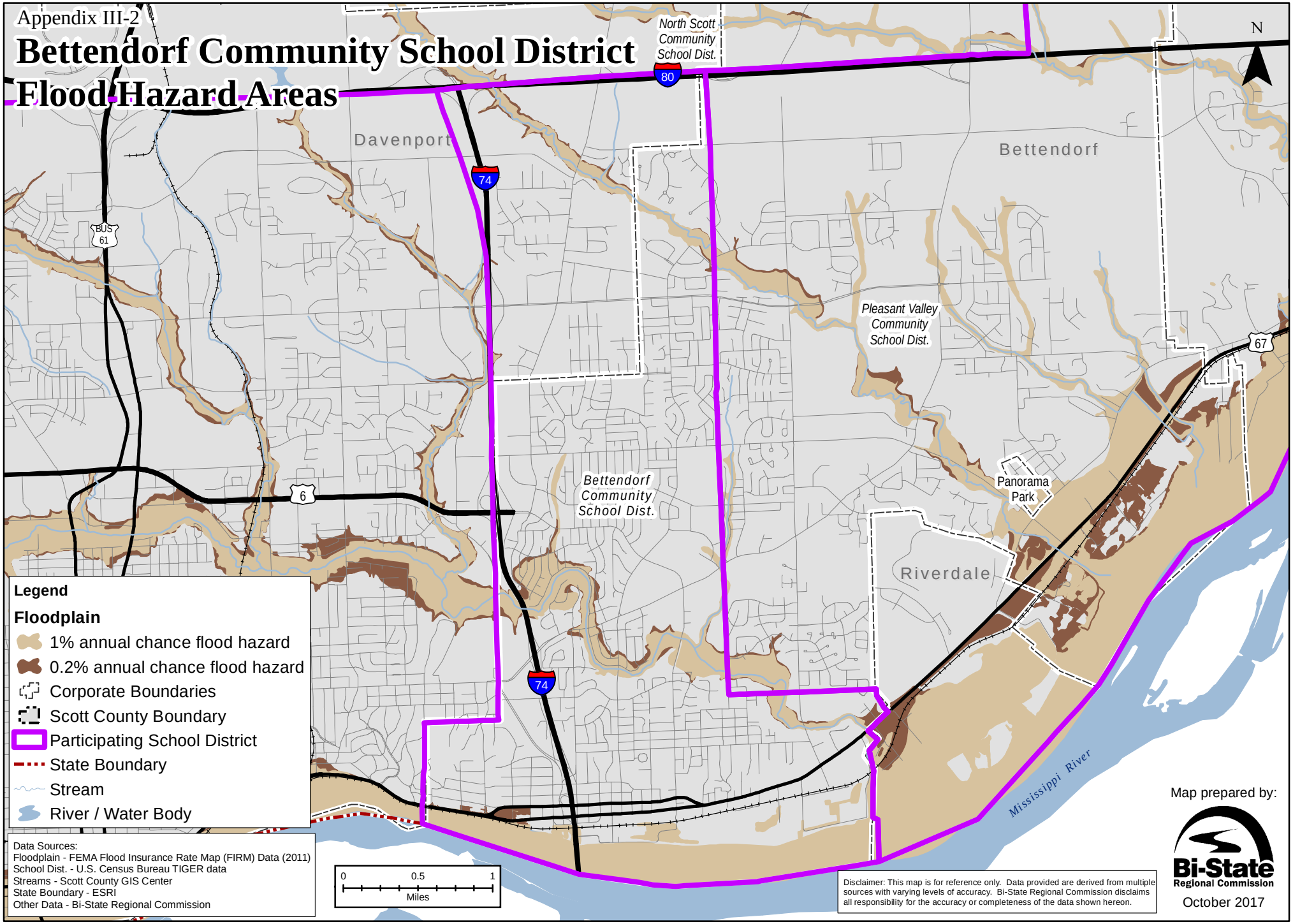
Appendix III-2

Bettendorf, IA (Panel 4 of 4) - Flood Hazard Areas



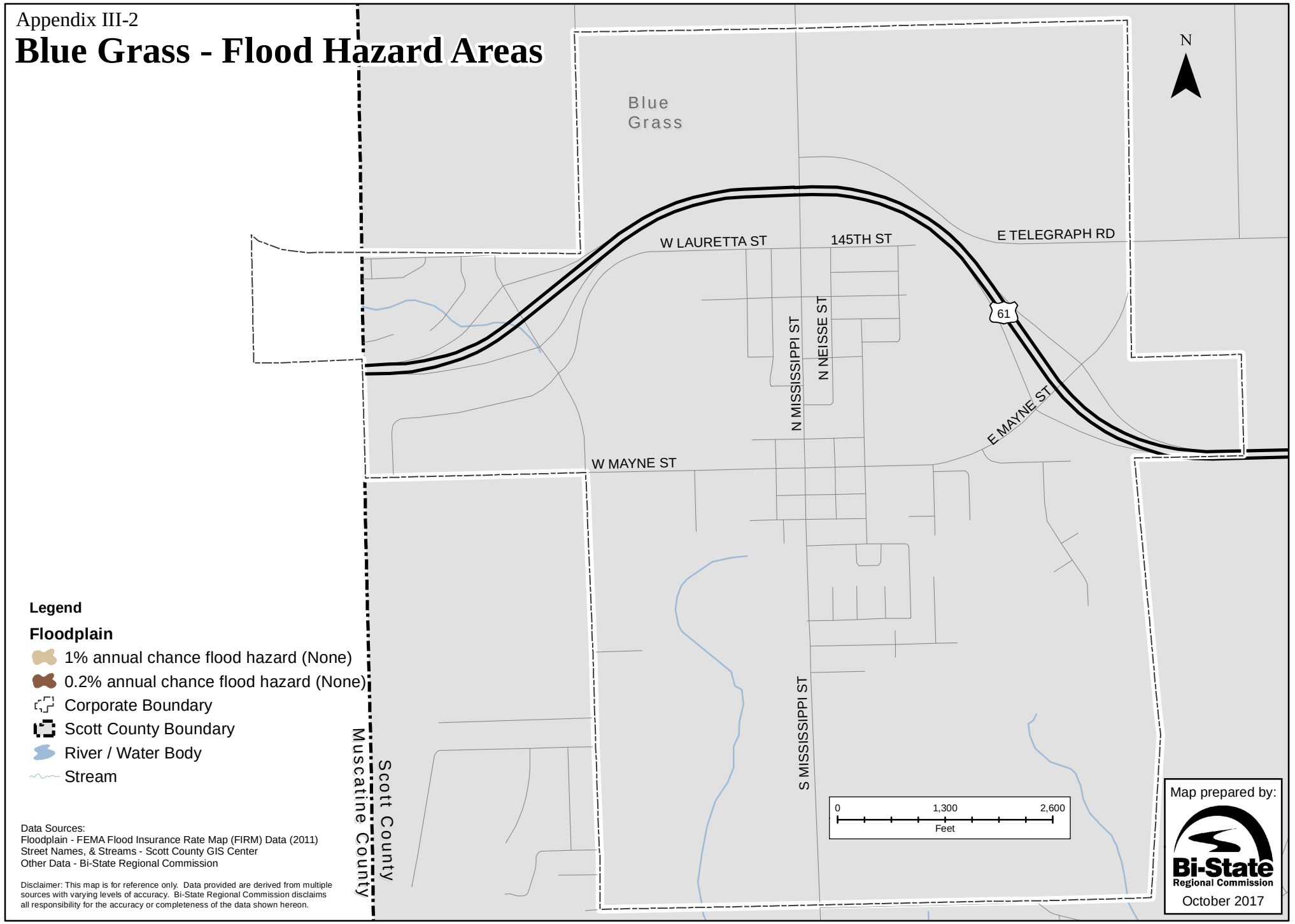
Appendix III-2

Bettendorf Community School District
Flood Hazard Areas



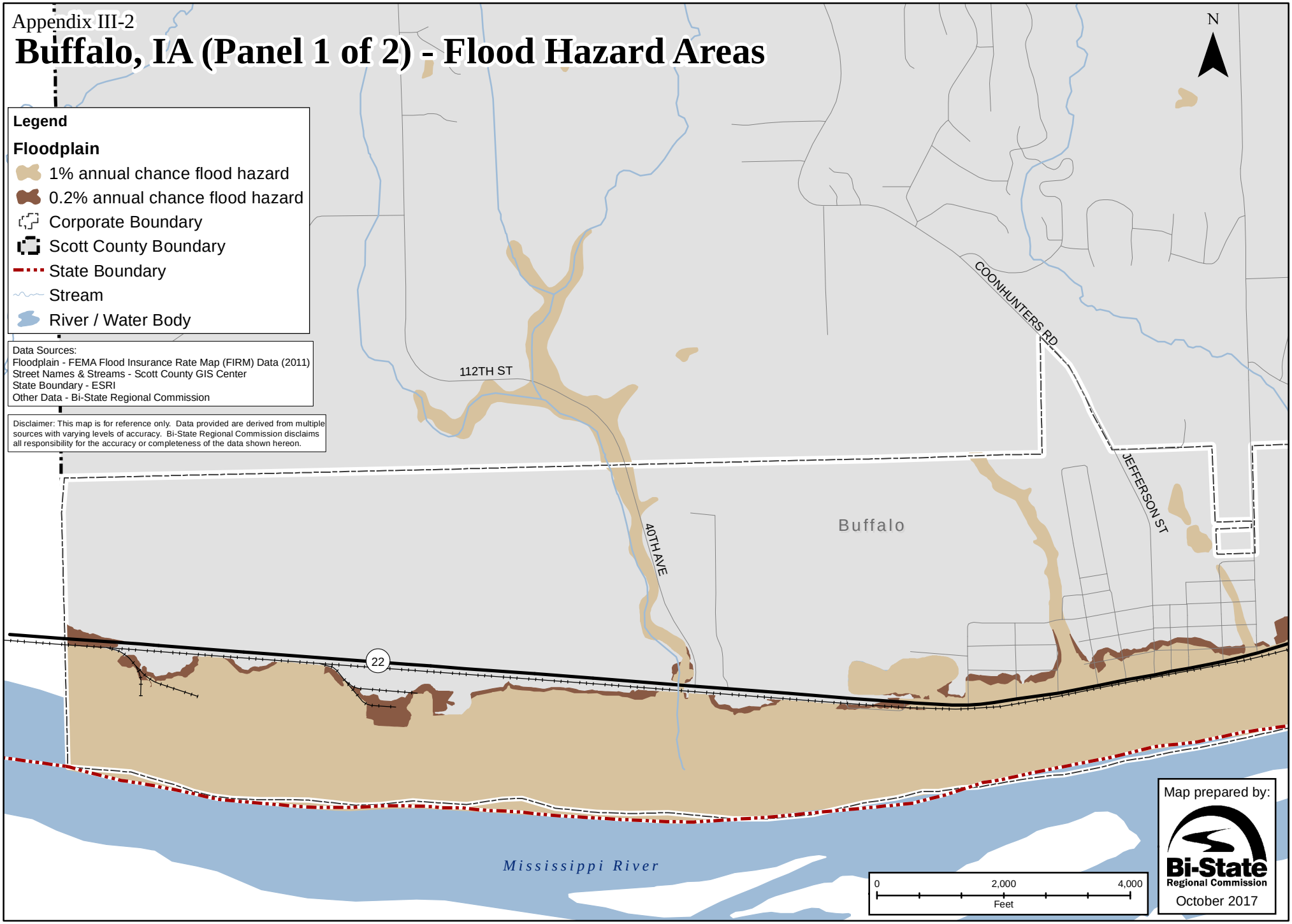
Appendix III-2

Blue Grass - Flood Hazard Areas



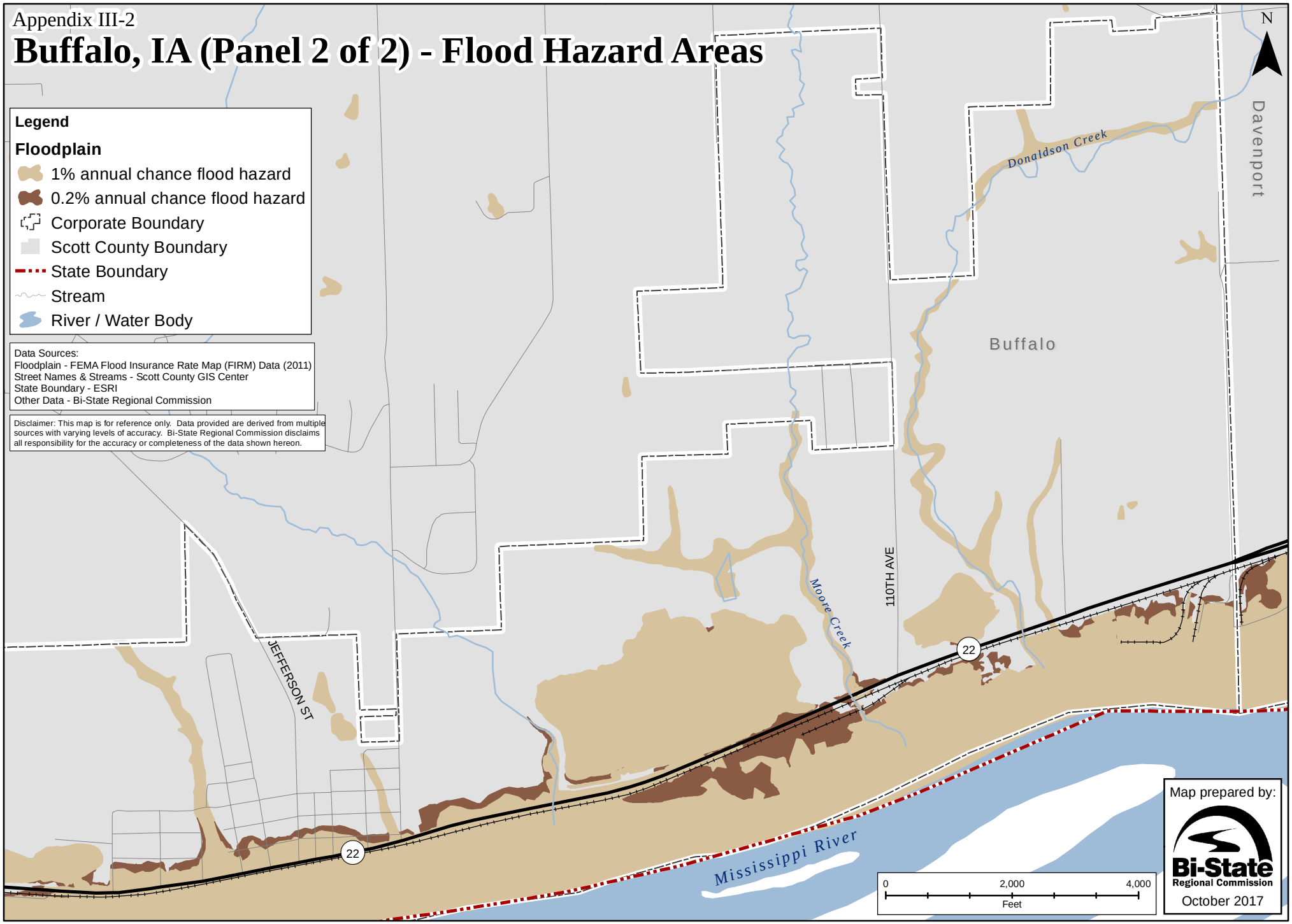
Appendix III-2

Buffalo, IA (Panel 1 of 2) - Flood Hazard Areas



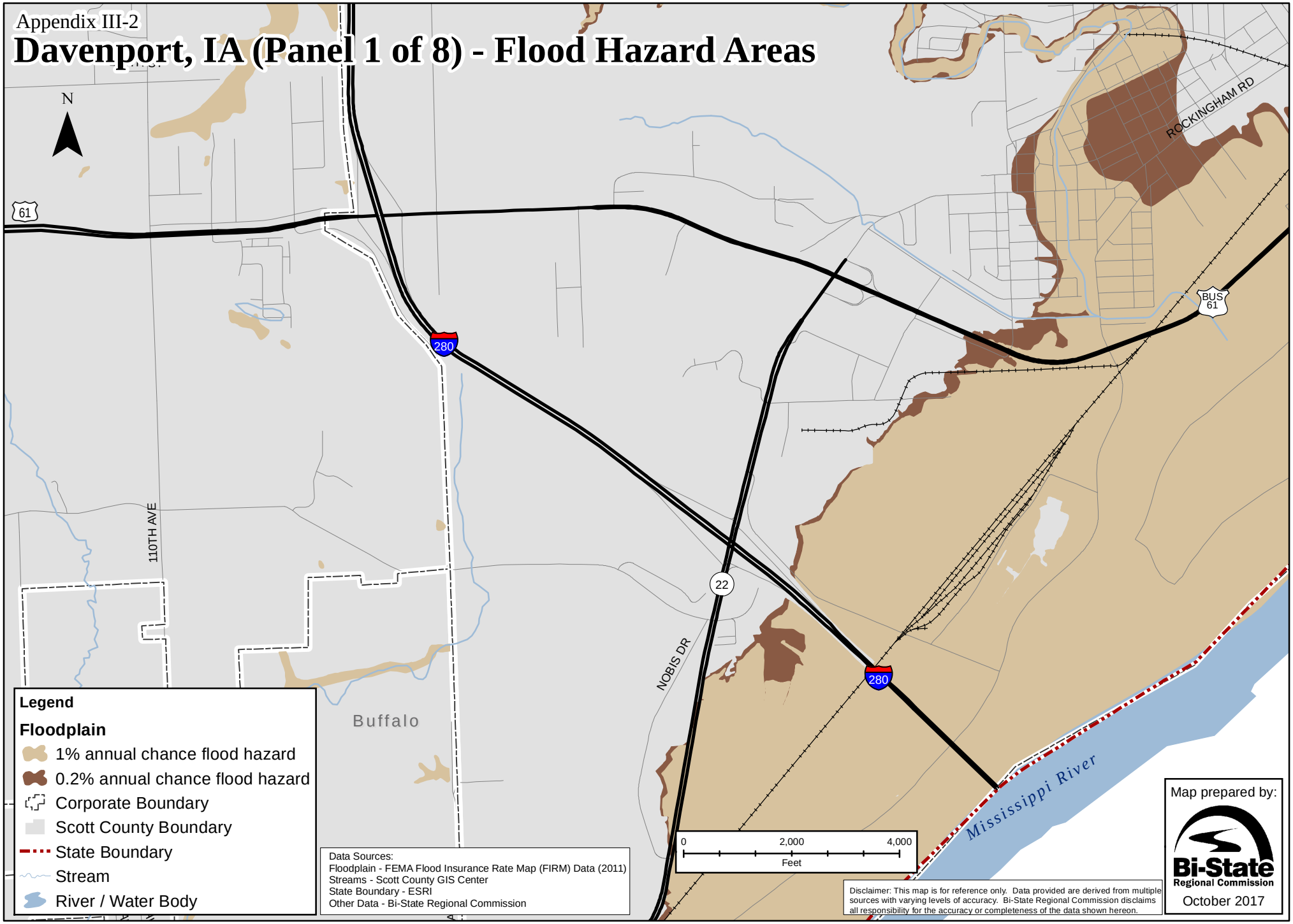
Appendix III-2

Buffalo, IA (Panel 2 of 2) - Flood Hazard Areas



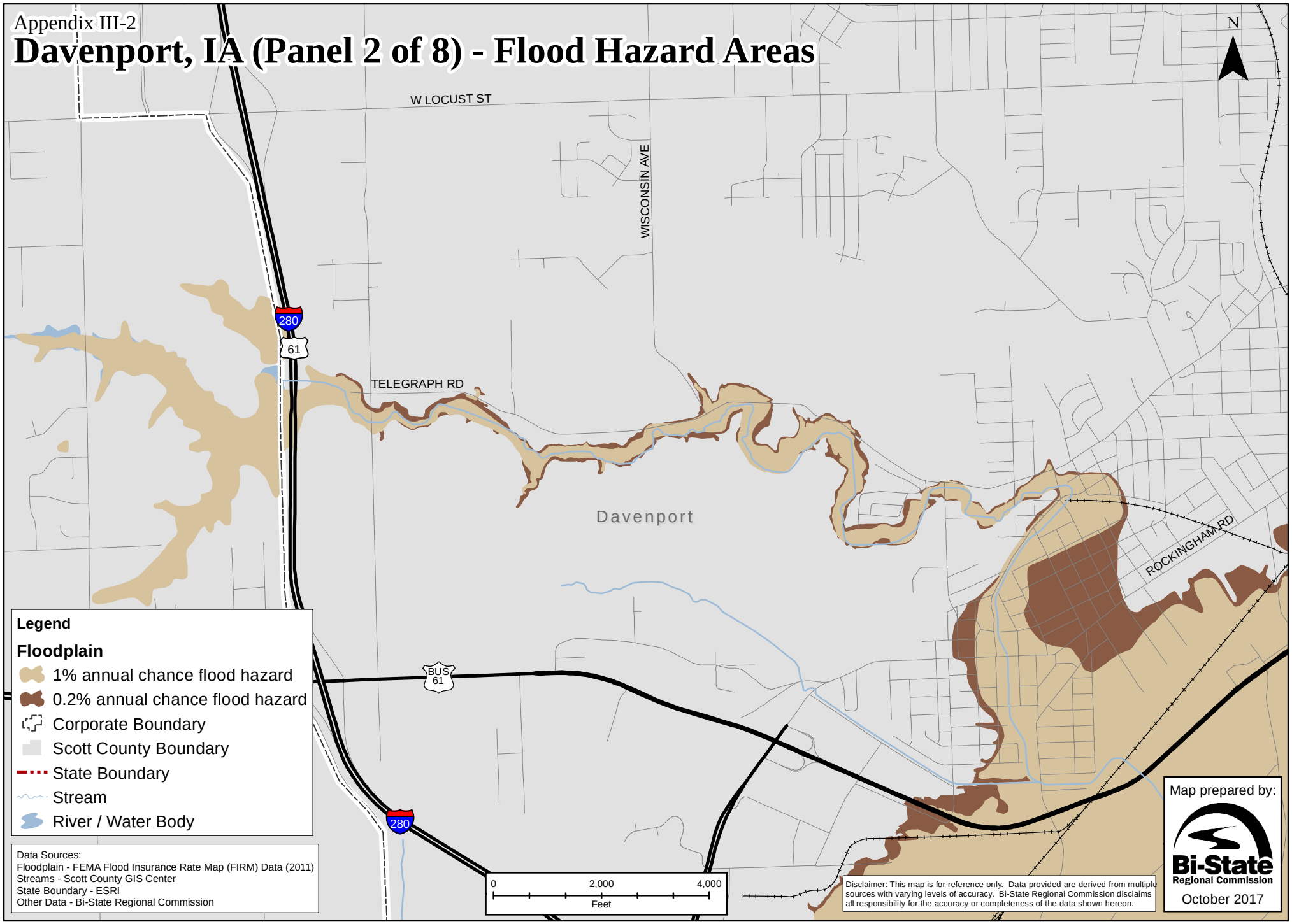
Appendix III-2

Davenport, IA (Panel 1 of 8) - Flood Hazard Areas



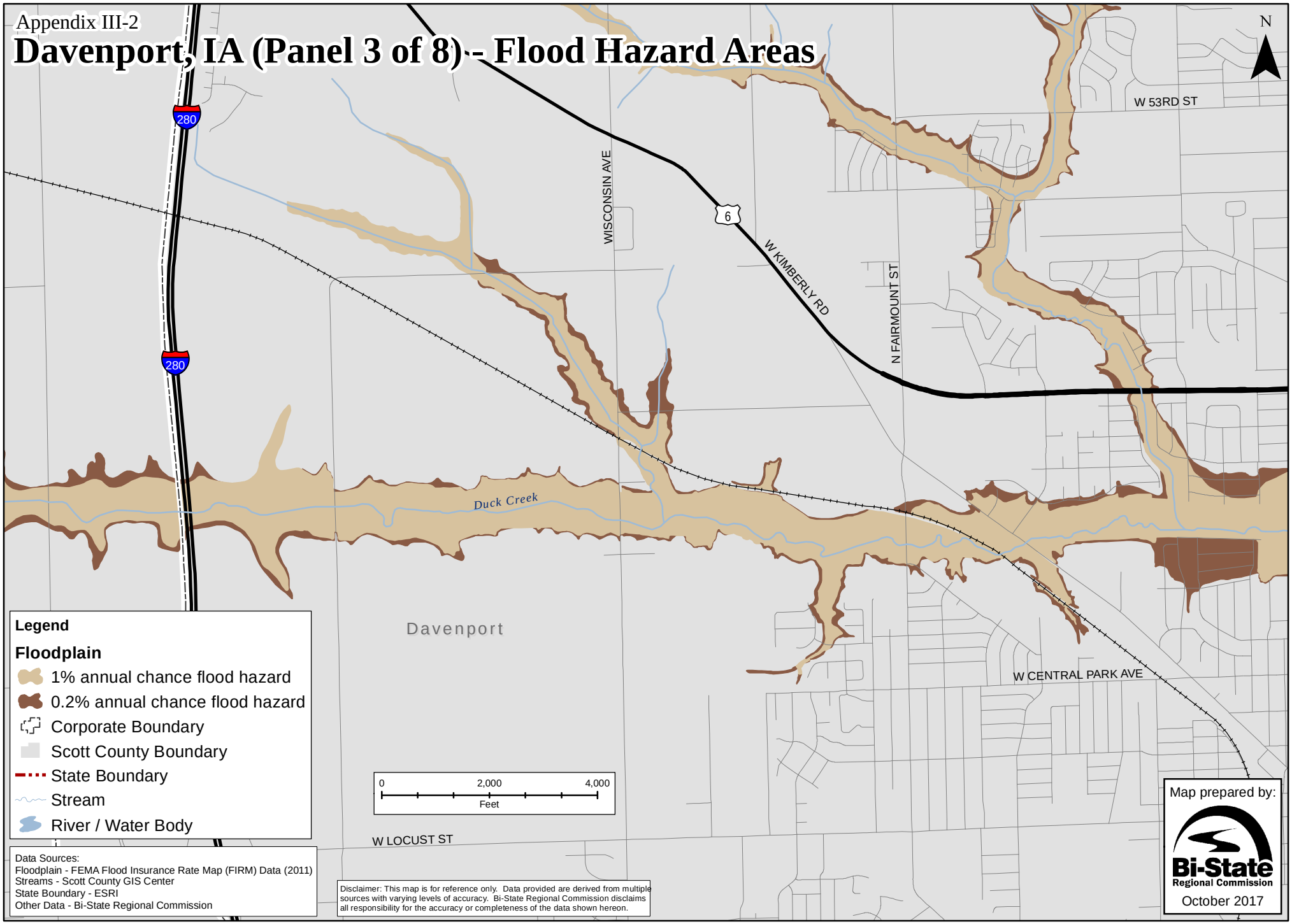
Appendix III-2

Davenport, IA (Panel 2 of 8) - Flood Hazard Areas



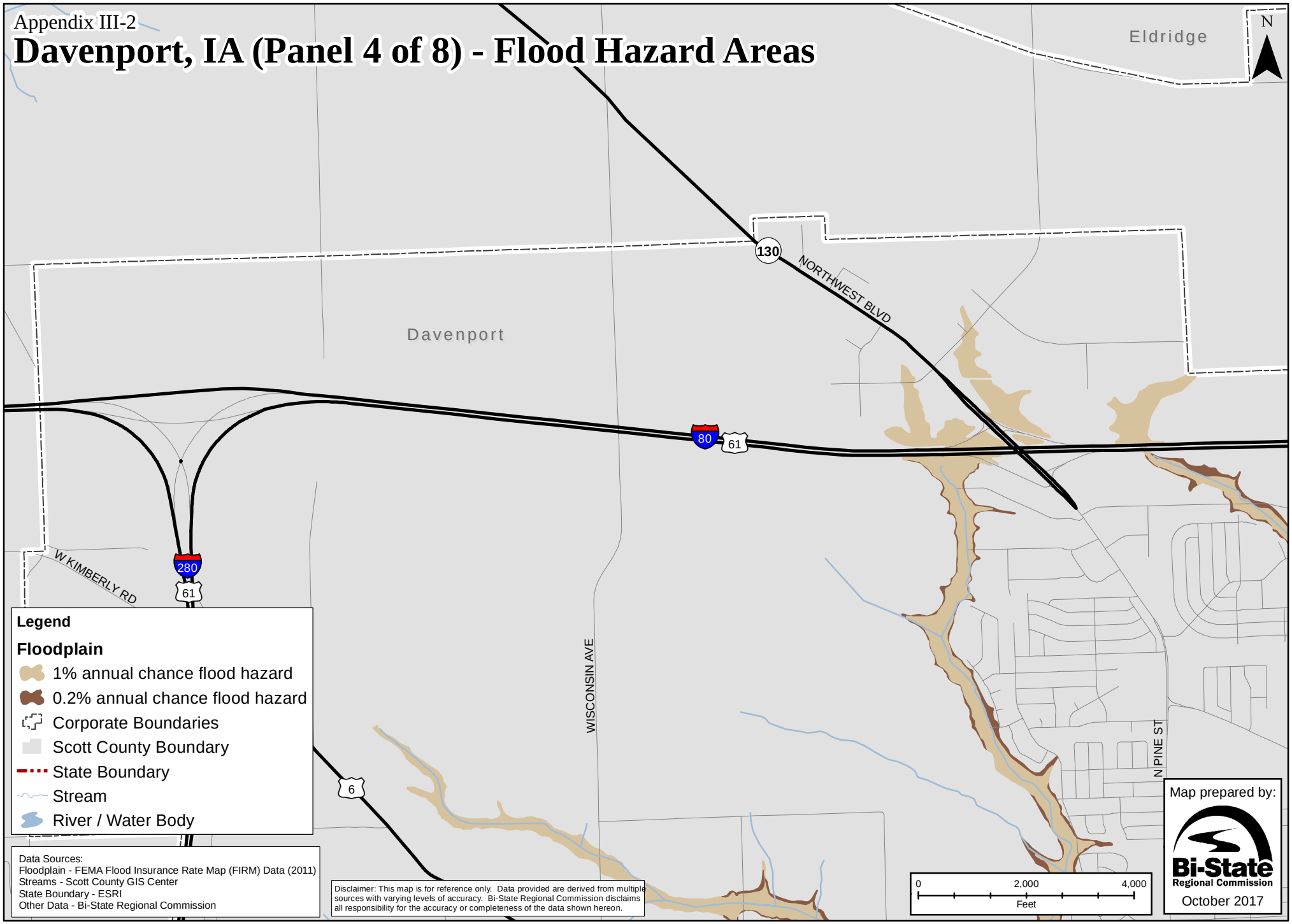
Appendix III-2

Davenport, IA (Panel 3 of 8) - Flood Hazard Areas



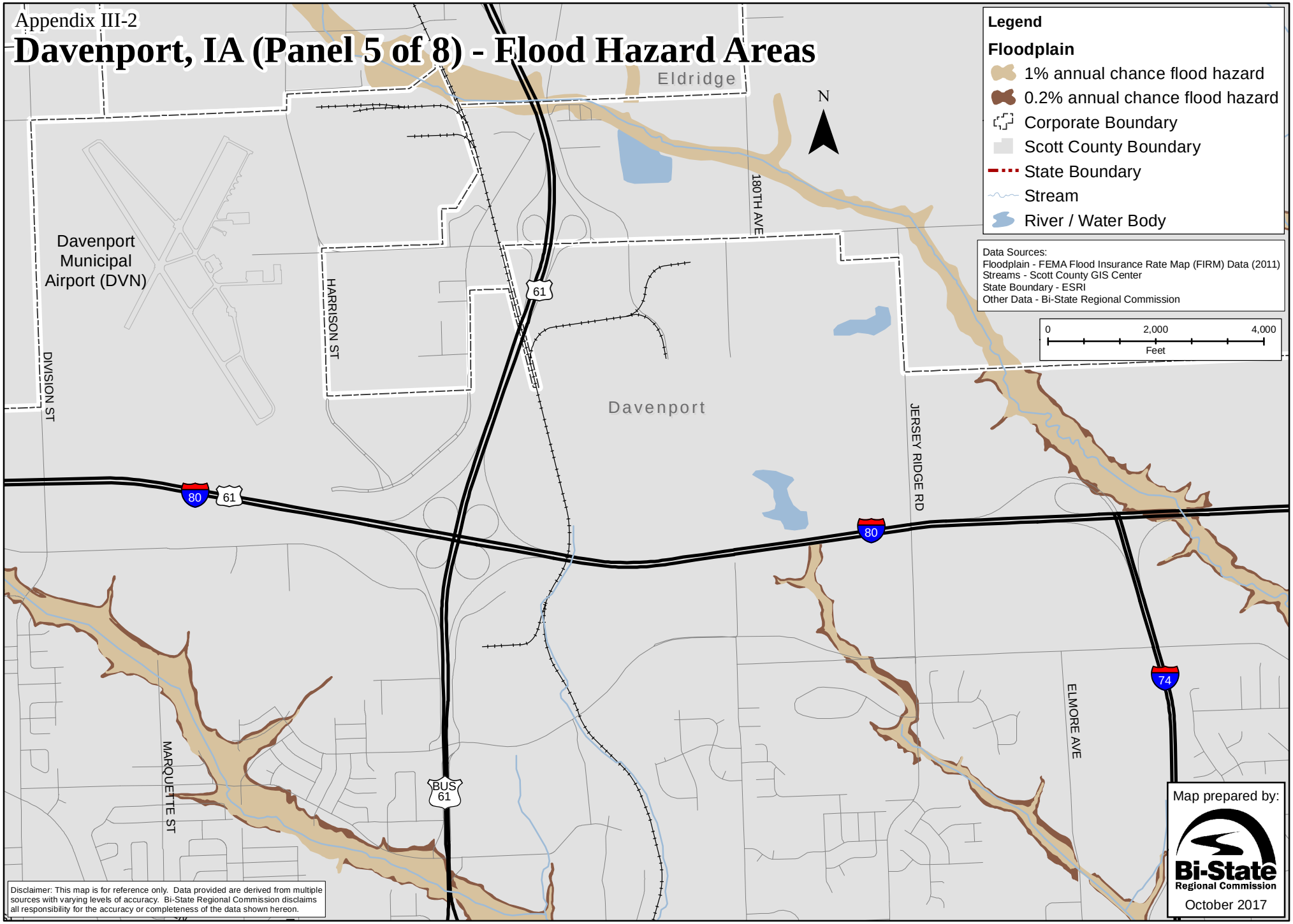
Appendix III-2

Davenport, IA (Panel 4 of 8) - Flood Hazard Areas



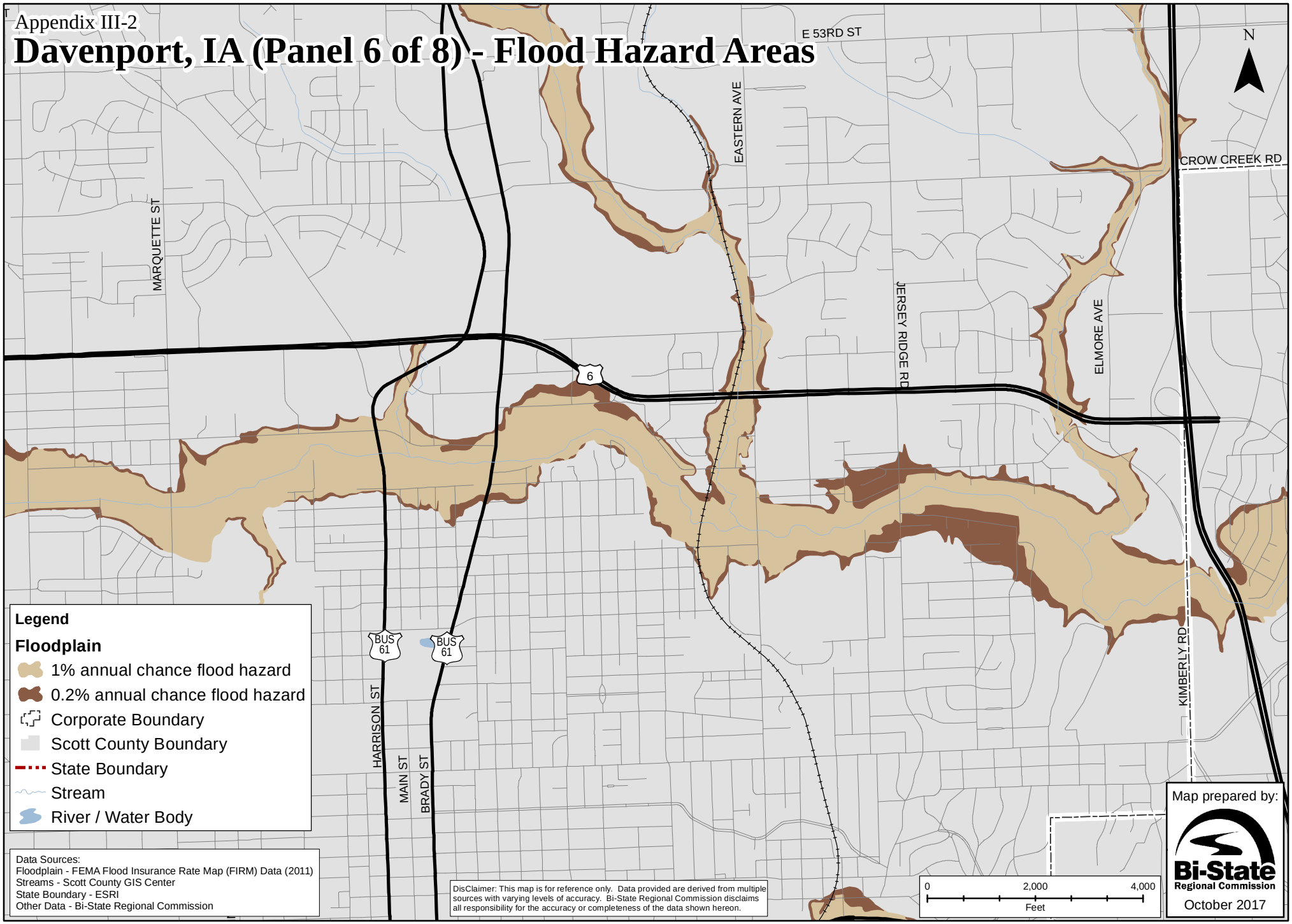
Appendix III-2

Davenport, IA (Panel 5 of 8) - Flood Hazard Areas



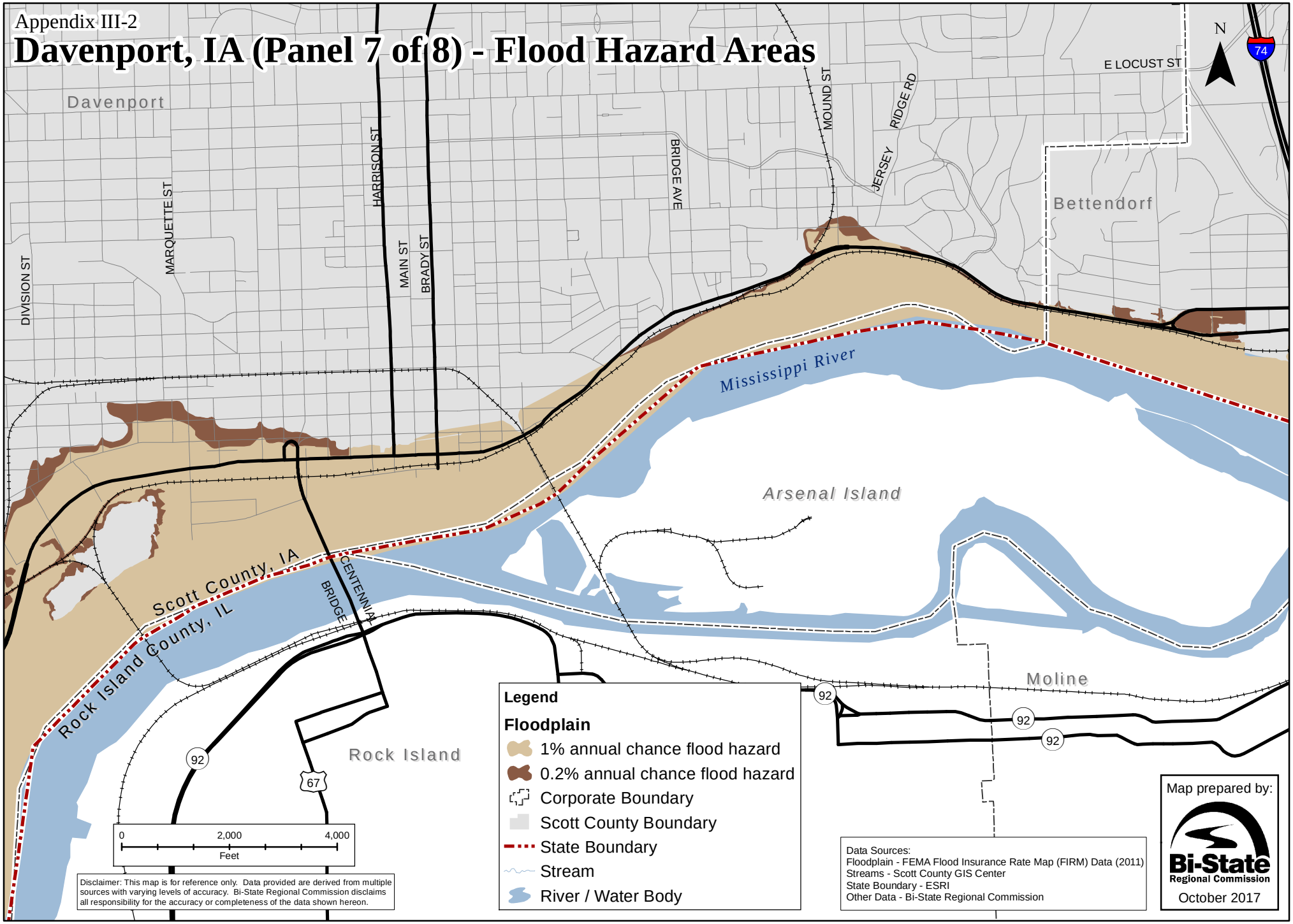
Appendix III-2

Davenport, IA (Panel 6 of 8) - Flood Hazard Areas



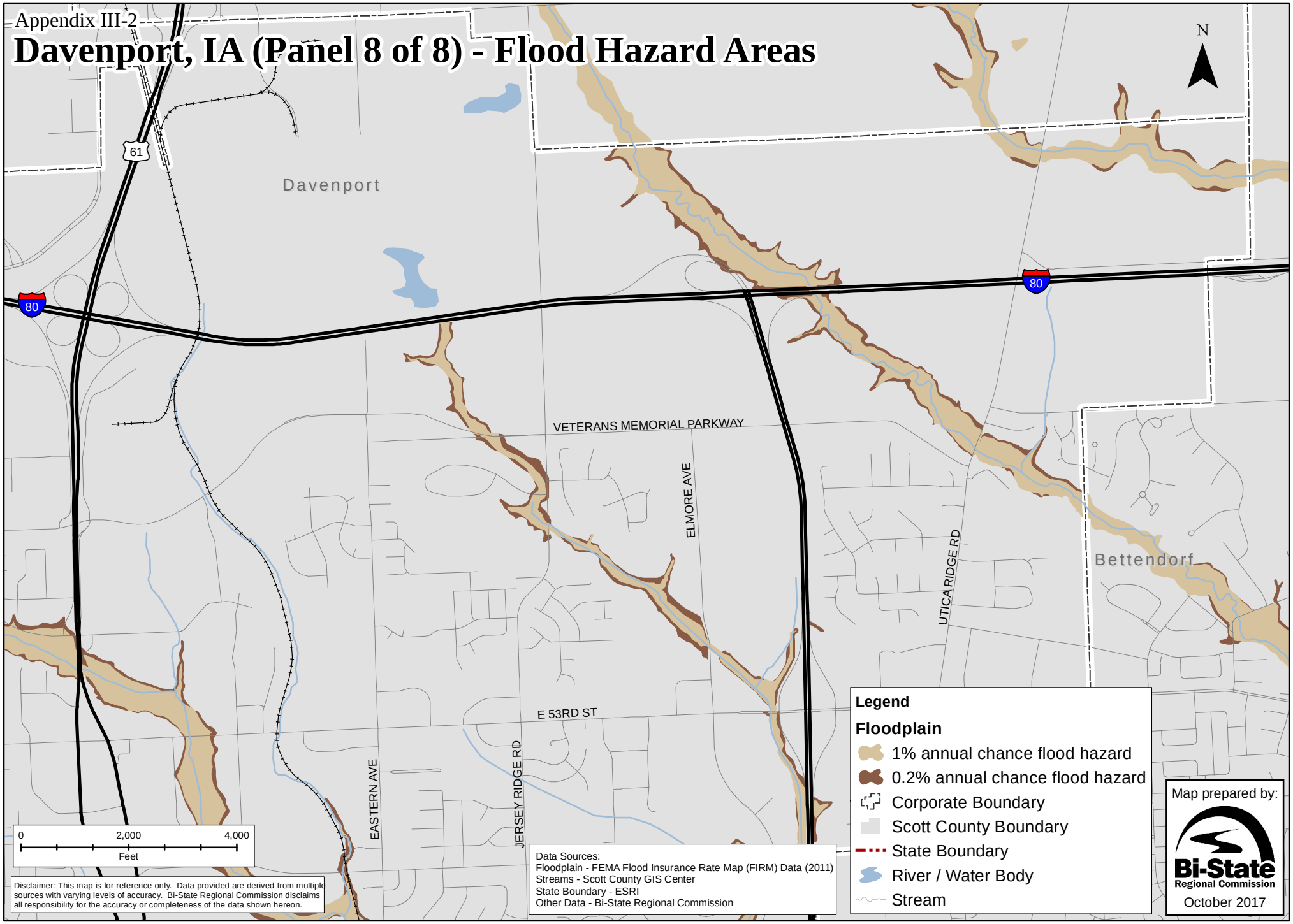
Appendix III-2

Davenport, IA (Panel 7 of 8) - Flood Hazard Areas



Appendix III-2

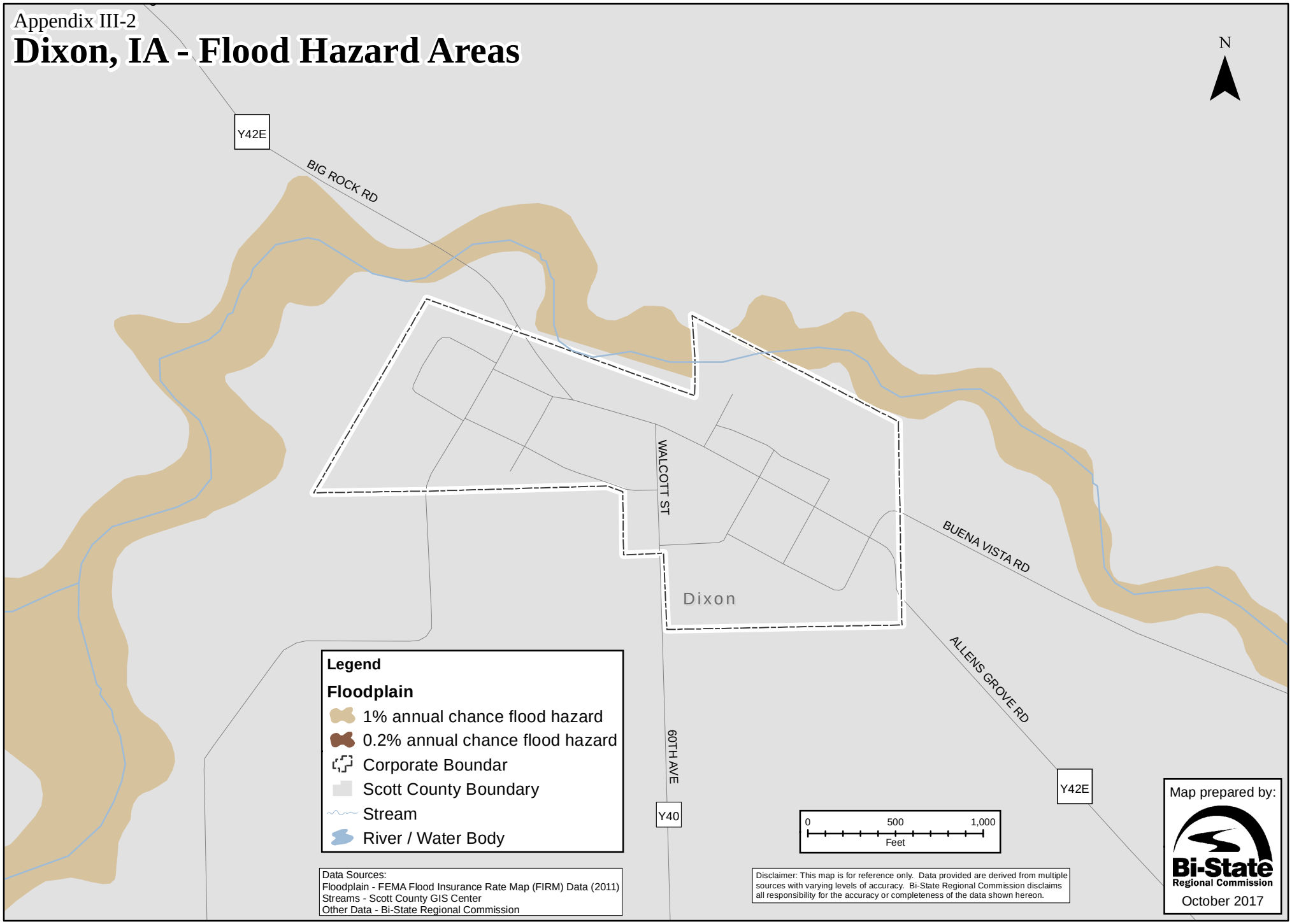
Davenport, IA (Panel 8 of 8) - Flood Hazard Areas



Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

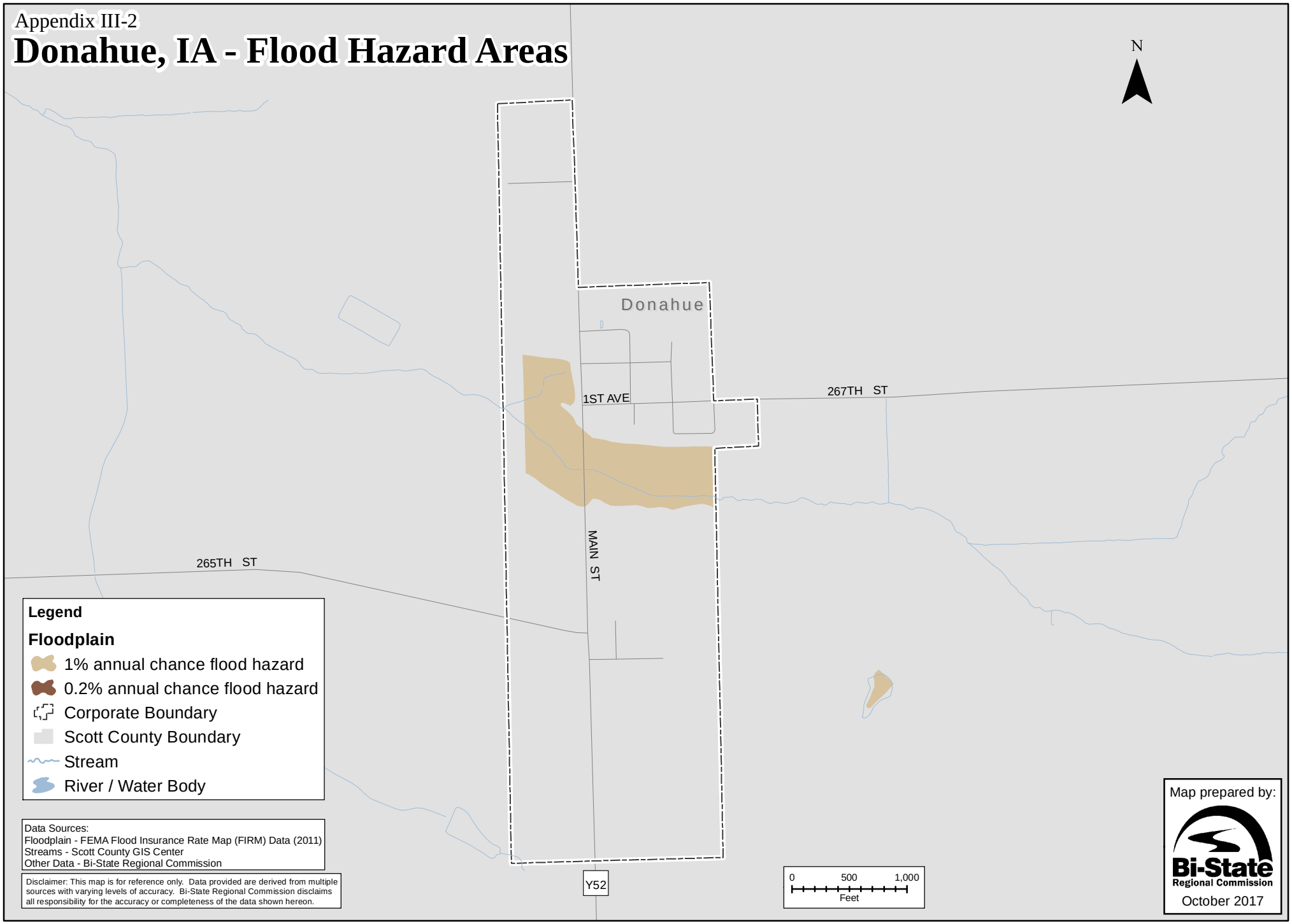
Appendix III-2

Dixon, IA - Flood Hazard Areas



Appendix III-2

Donahue, IA - Flood Hazard Areas

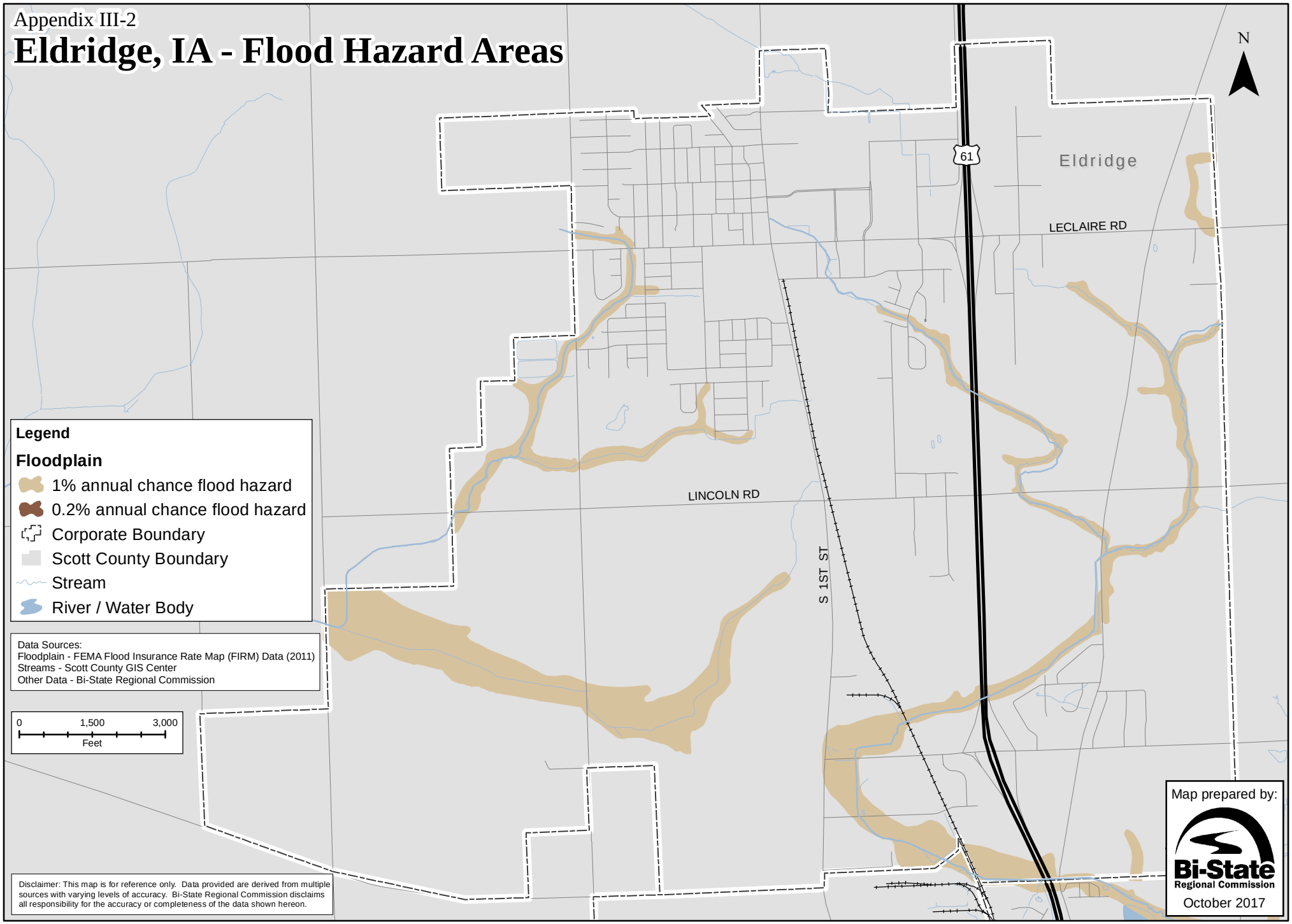


Data Sources:
Floodplain - FEMA Flood Insurance Rate Map (FIRM) Data (2011)
Streams - Scott County GIS Center
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

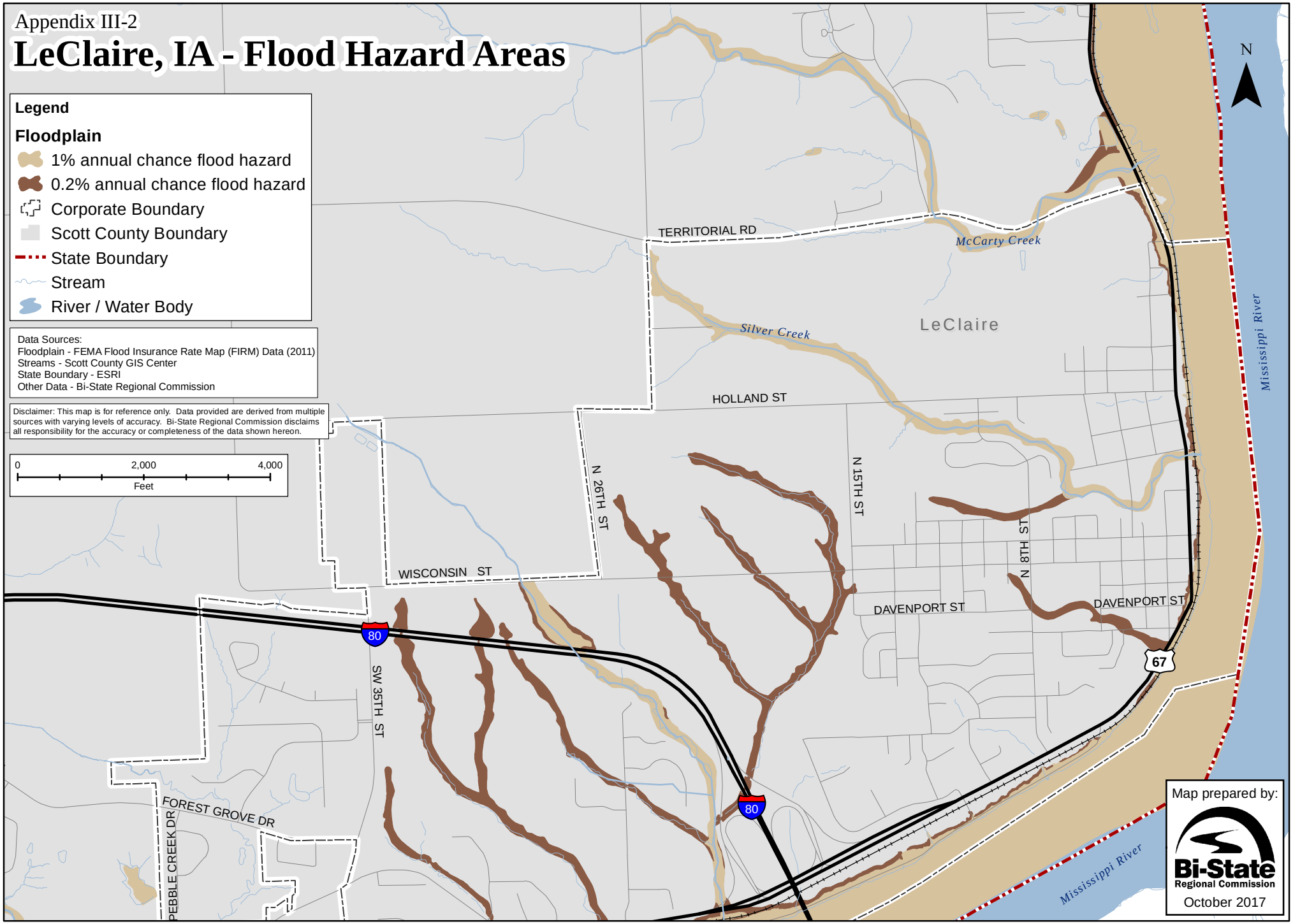
Appendix III-2

Eldridge, IA - Flood Hazard Areas



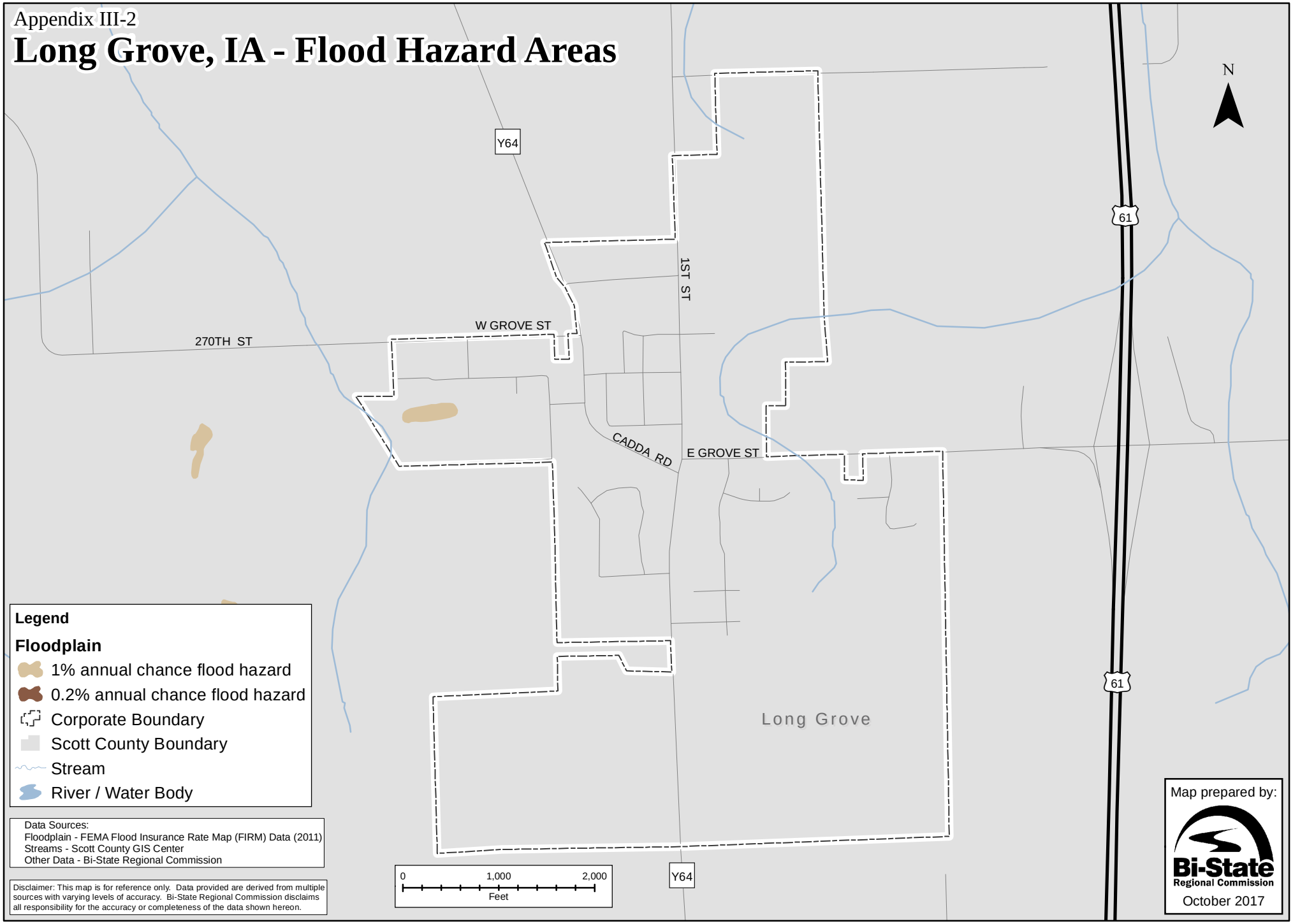
Appendix III-2

LeClaire, IA - Flood Hazard Areas



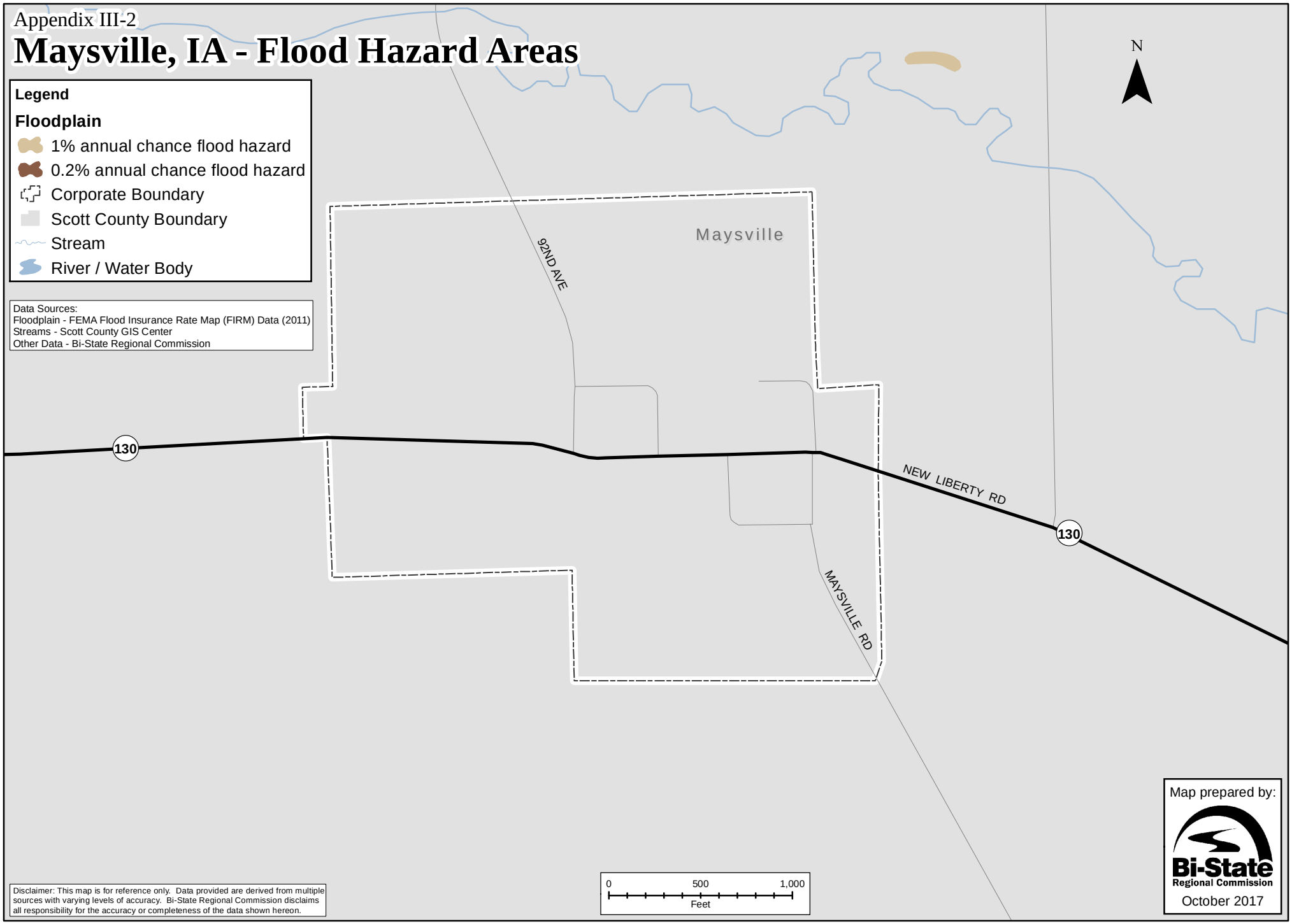
Appendix III-2

Long Grove, IA - Flood Hazard Areas



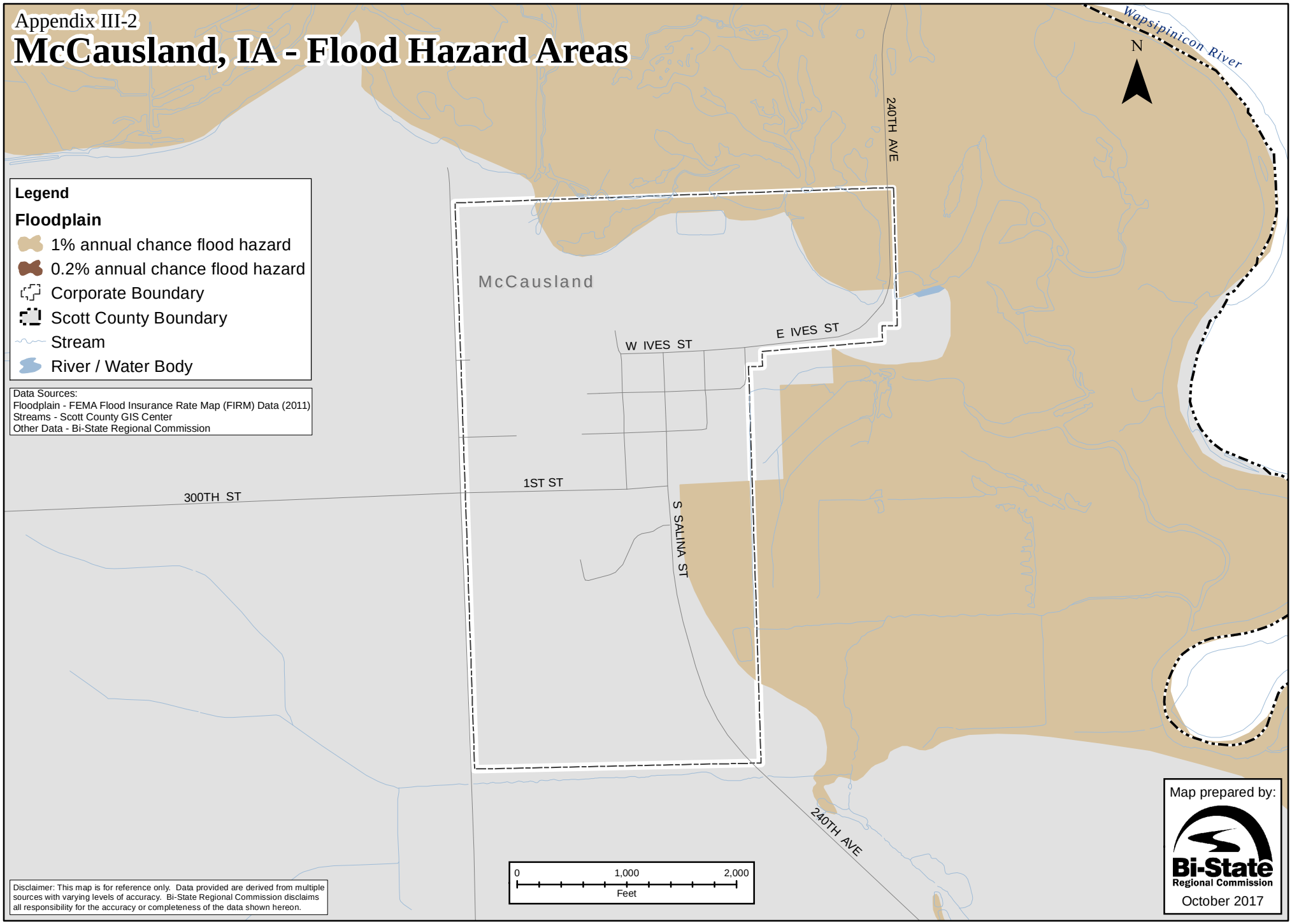
Appendix III-2

Maysville, IA - Flood Hazard Areas



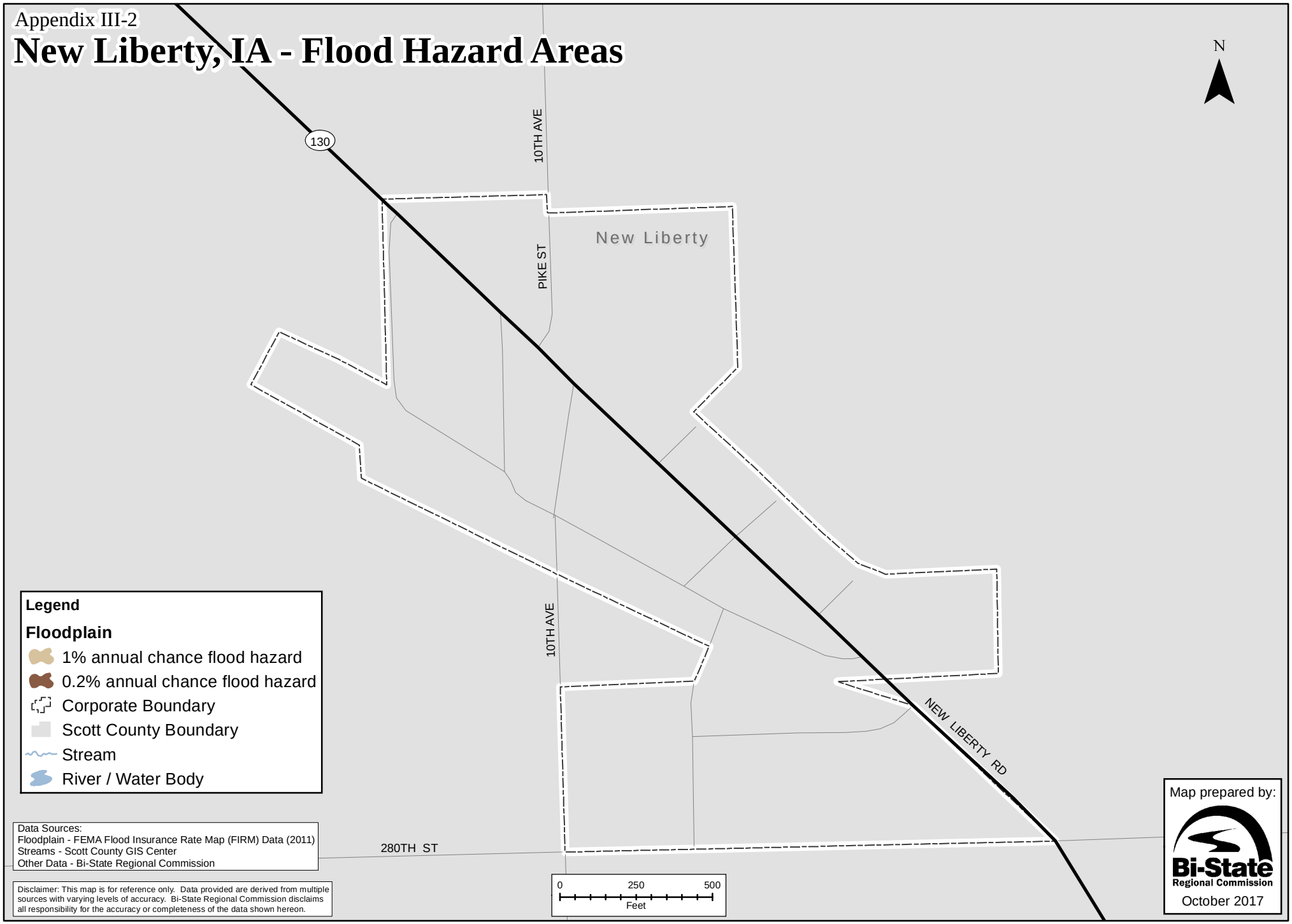
Appendix III-2

McCausland, IA - Flood Hazard Areas



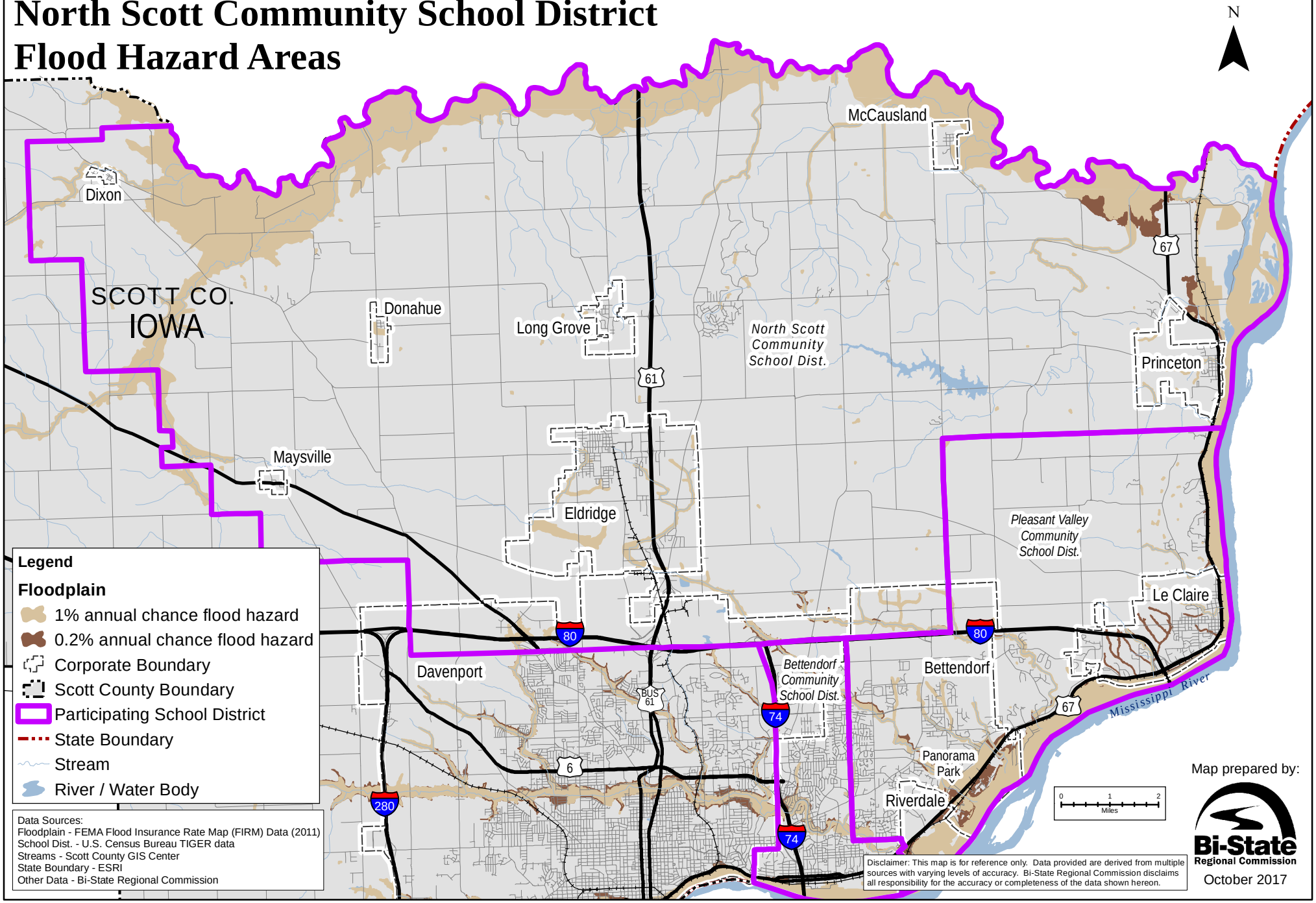
Appendix III-2

New Liberty, IA - Flood Hazard Areas



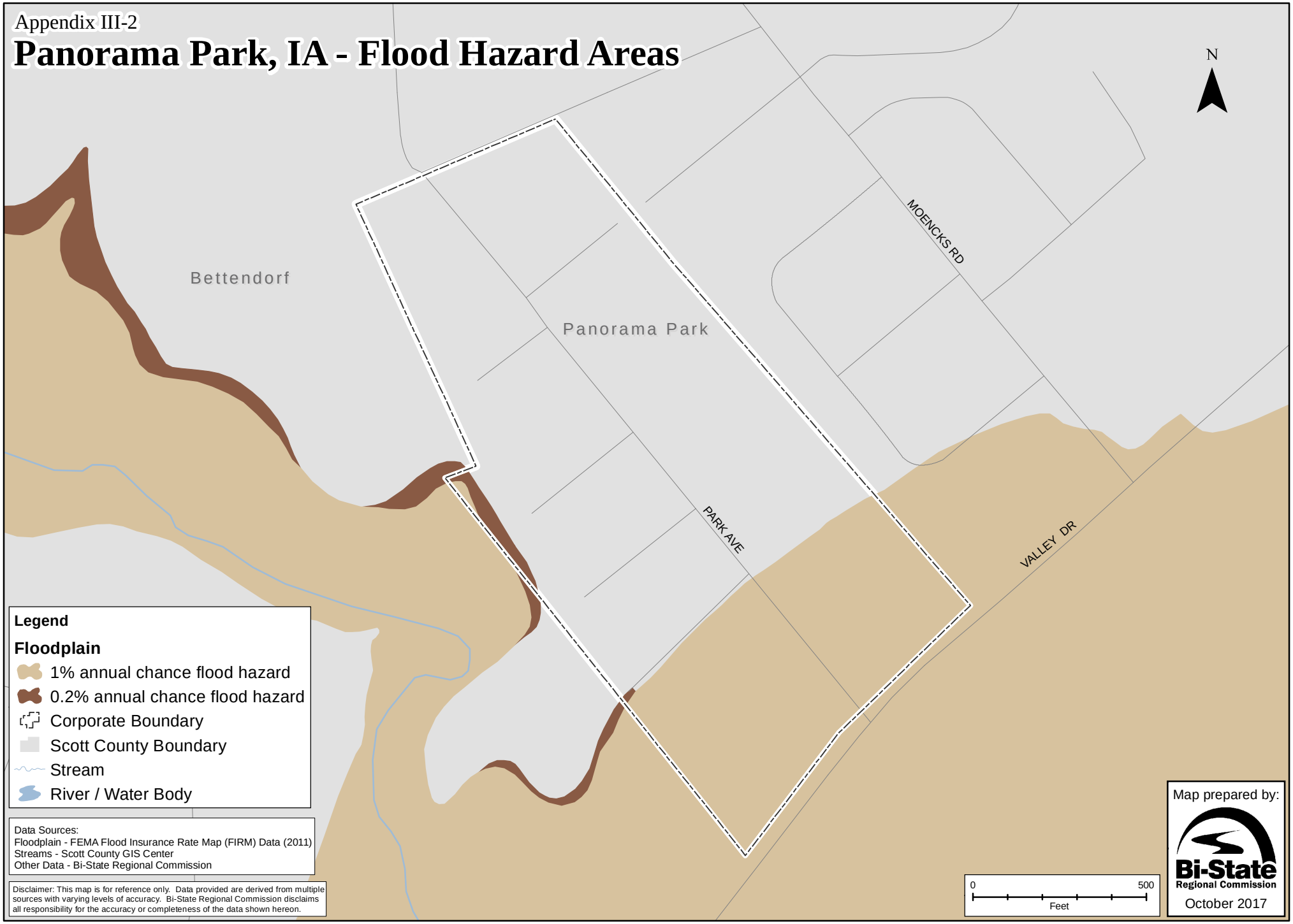
Appendix III-2

North Scott Community School District
Flood Hazard Areas



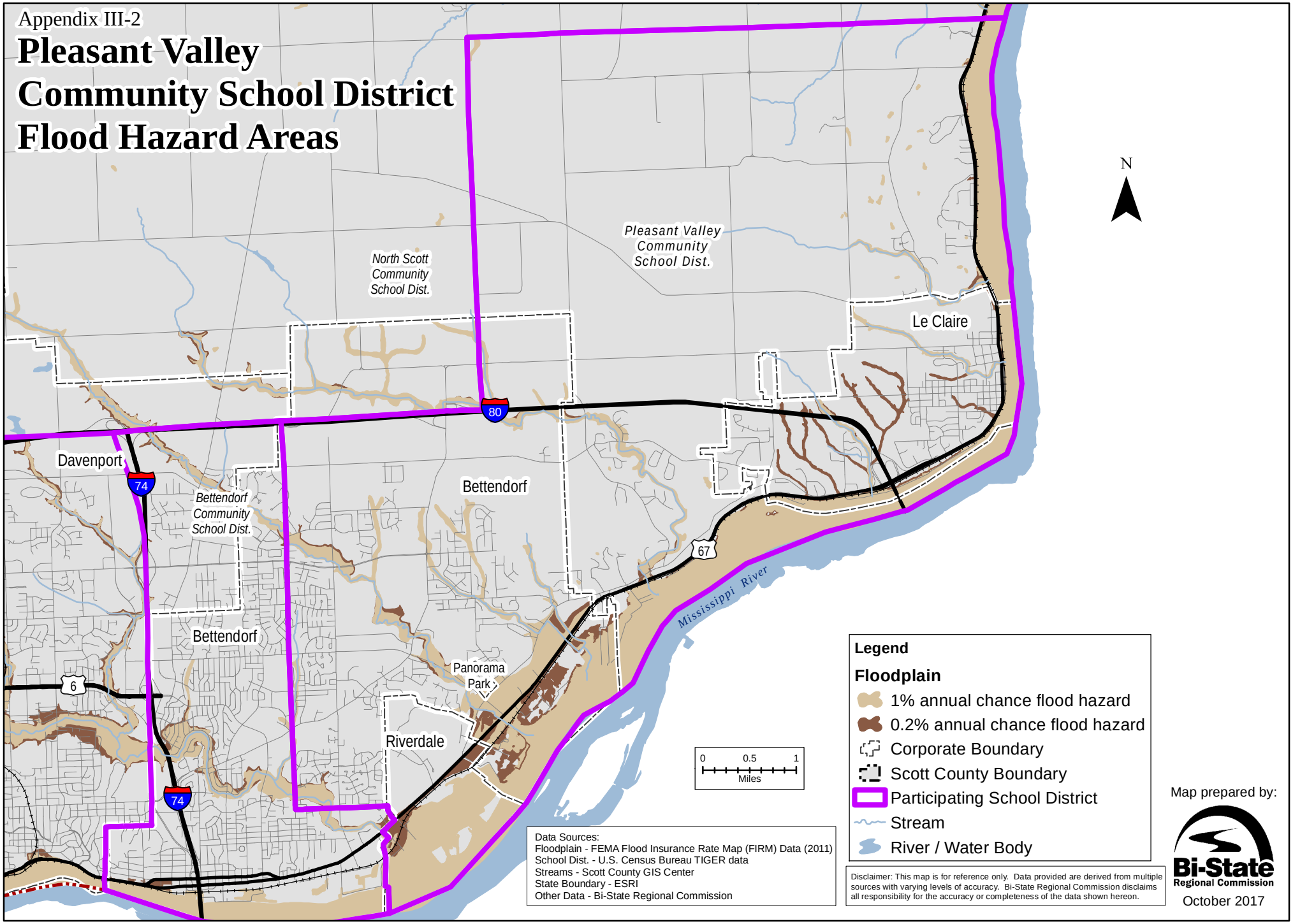
Appendix III-2

Panorama Park, IA - Flood Hazard Areas



Appendix III-2

Pleasant Valley Community School District Flood Hazard Areas



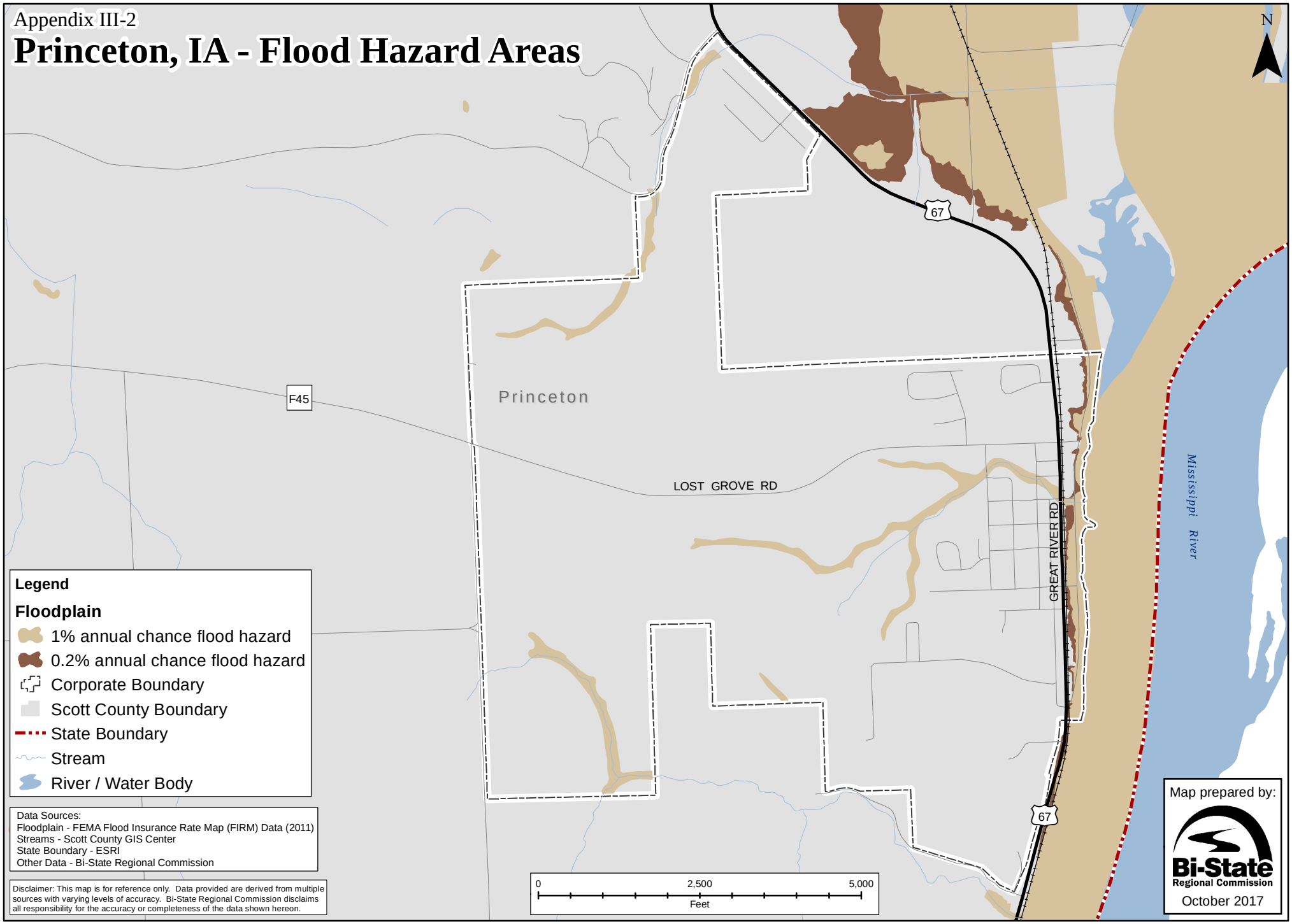
Data Sources:
Floodplain - FEMA Flood Insurance Rate Map (FIRM) Data (2011)
School Dist. - U.S. Census Bureau TIGER data
Streams - Scott County GIS Center
State Boundary - ESRI
Other Data - Bi-State Regional Commission

Disclaimer: This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.

Map prepared by:
Bi-State Regional Commission
October 2017

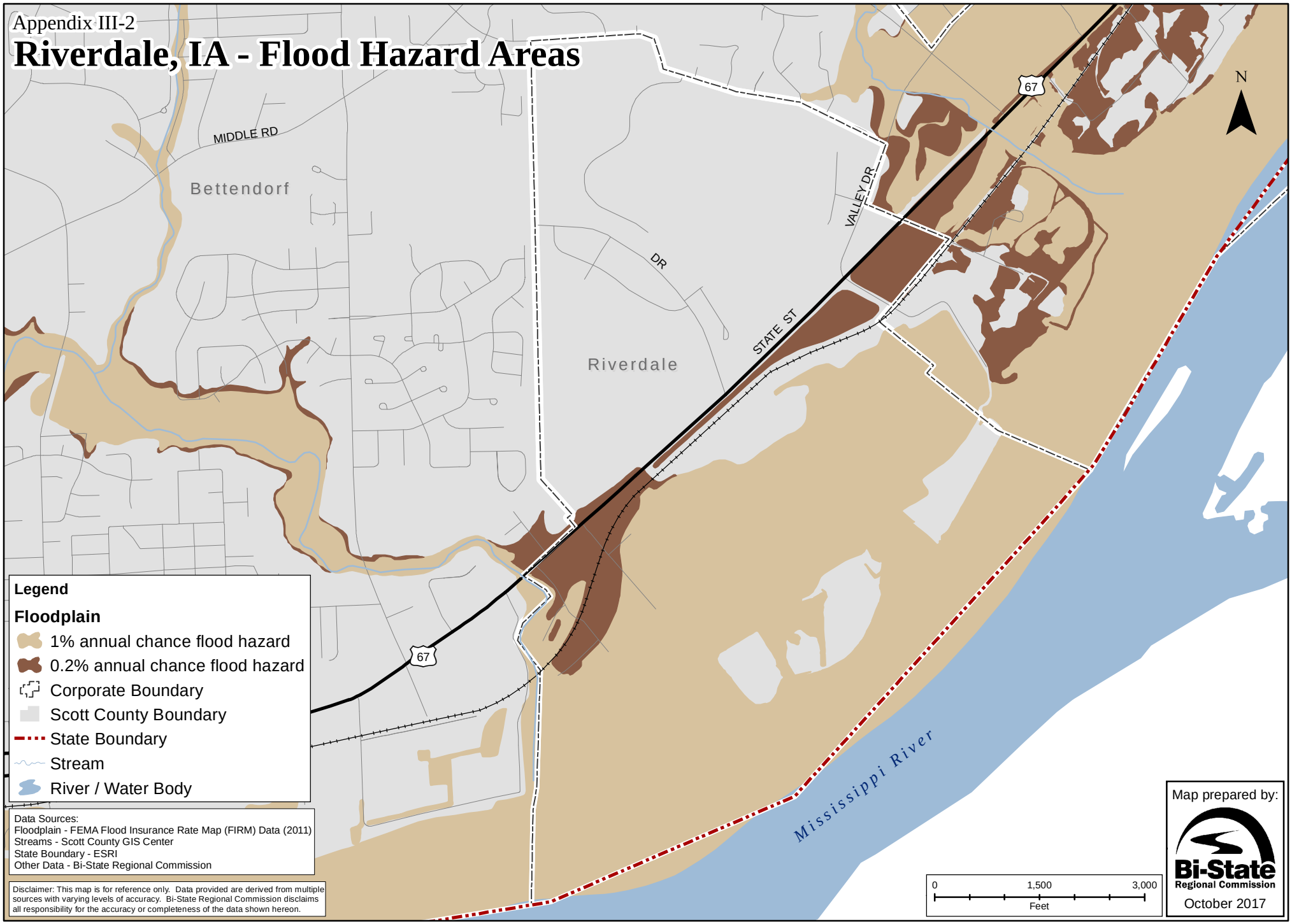
Appendix III-2

Princeton, IA - Flood Hazard Areas



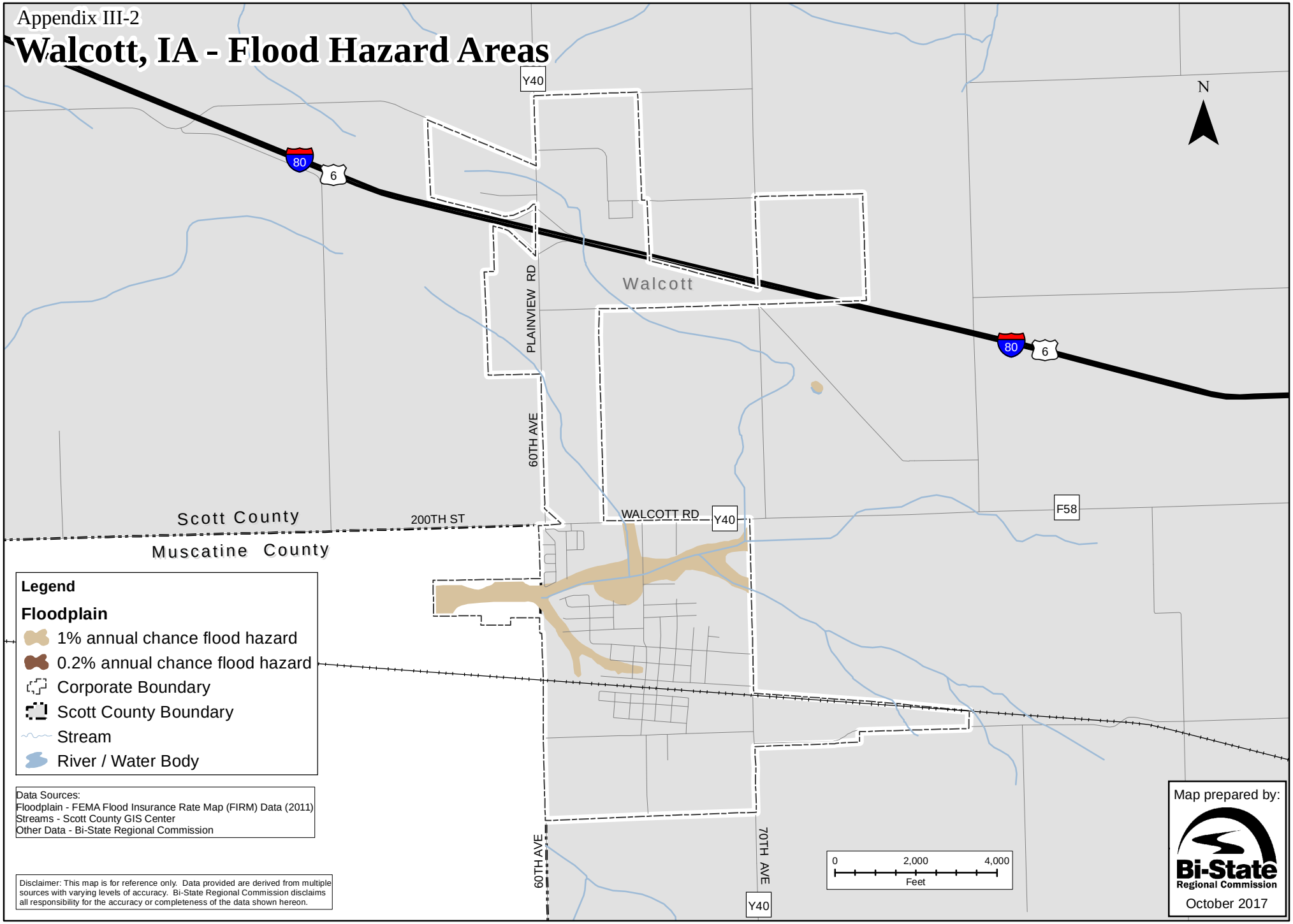
Appendix III-2

Riverdale, IA - Flood Hazard Areas



Appendix III-2

Walcott, IA - Flood Hazard Areas



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	**S** Social		**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	Consistent w/ Federal Laws

Comments:

Benefit:

Cost/Funding Source:

Responsible Party:

Timeframe for Completion:

APPENDIX IV-2 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	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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: Complete

Action ID: 1.2

Action considered: Create detour and road closure plans for flooded areas

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	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: Complete

Action ID: 1.3

Action considered: Encourage use of NOAA weather radios

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 1.4

Action considered: Identify potential treatment locations for biological, radiological and chemical exposure

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 1.5

Action considered: Provide treatment locations for pandemic disease and fixed radiological incident

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	–	+	–	+	+	+	+	+	+	+	+	+	–	+	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: Ongoing – Continuous Cycle

Action ID: 1.6

Action considered: Encourage certain routes to be used for transportation of hazardous materials

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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

Timeframe for Completion: Complete

Action ID: 1.7

Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 1.8

Action considered: Encourage those dependent on oxygen extractors to install back-up generators

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 1.9

Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 2.1

Action considered: Create additional railroad right-of-way separation requirements from residential areas

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – In Process

Action ID: 2.2

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State Iowa Model Code

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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: Complete

Action ID: 2.3

Action considered: Maintain controlled burn measures and procedures implemented by fire department

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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: Complete

Action ID: 2.4

Action considered: Require utility companies mark approximate utility locations of pipelines

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 2.5

Action considered: Adopt and enforce current building codes

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 2.6

Action considered: Educate public about plant disease, infestation and plant removal techniques

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 2.7

Action considered: Ensure hazardous materials sites are monitored

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 2.8

Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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 – Continuous Cycle

Action ID: 2.9

Action considered: Develop and implement storm water regulations and drainage plans

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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

Timeframe for Completion: Ongoing – In Process

Action ID: 2.10

Action considered: Seek all appropriate available grants for the purpose of mitigating flood prone residential properties by use of buyout programs and return the properties in the flood zone back to open space eliminating future flood threats

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Comments:

Benefit: Removing homes from flood prone areas will reduce exposure to the hazard

Cost/Funding Source: General Fund, Capital Improvements Project Fund and some grants

Responsible Party: Public Works and Community Development

Timeframe for Completion: Ongoing

Action ID: 3.1

Action considered: Encourage planting of more drought resistant landscape

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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: Complete

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	S Social		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	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: Complete

Action ID: 3.3

Action considered: Analyze high traffic accident locations for possible solutions

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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: Complete

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	S Social		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	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 area

Cost/Funding Source: General Fund or Grants. Contingent on funding availability.

Responsible Party: Community Development, Public Works, Corps of Engineers

Timeframe for Completion: Complete

Action ID: 3.5

Action considered: Be proactive with virus protection and shore back up data in offsite location

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 3.6

Action considered: Assist in the promotion of vaccination programs with local, state and federal officials

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	–	+	+	–	–	–	+	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: Complete

Action ID: 3.7

Action considered: Ensure all critical municipal facilities have backup generators

STAPLEE Criteria	S Social		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	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 – In Process

Action ID: 4.1

Action considered: Implement wildfire prevention program

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.2

Action considered: Educate the public on the dangers of lightning

STAPLEE Criteria	S Social		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	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 Social		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	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

Timeframe for Completion: Complete

Action ID: 4.4

Action considered: Utilize ITS signs to communicate safe driving messages and to alert drives to hazardous conditions

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.5

Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 4.6

Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.7

Action considered: Educate the public on maintaining a fire safe home or business

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.8

Action considered: Educate the public on the danger of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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: Complete

Action ID: 4.9

Action considered: Communicate the locations of community shelters

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 4.10

Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.11

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.12

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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: Complete

Action ID: 4.13

Action considered: Educate the public on what river flood levels o the Mississippi and Wapsi actually mean

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.14

Action considered: Educate the public about sandbagging techniques and flood prevention technologies

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.15

Action considered: Educate the public on the dangers of flash flooding

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 4.16

Action considered: Promote state and federal remediation programs for windstorm and animal/crop/plant disease incidents

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	+	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: Ongoing – Continuous Cycle

Action ID: 4.18

Action considered: Educate the public on river flooding and what they need to do when an event occurs

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 4.19

Action considered: Educate the public on how to minimize damage to their residences and businesses

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

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 Social		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	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: Complete

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 Social		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	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: Ongoing – Continuous Cycle

Action ID: 4.22

Action considered: Monitor water levels and notify the public when flooding will occur and where

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 5.1

Action considered: Make sure hazardous materials sites keep their inventory of materials current

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 5.2

Action considered: Have regular training for water rescue and updated equipment

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 5.3

Action considered: Maintain mutual aid response policy established by local agencies

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 5.4

Action considered: Ensure First Responders have rescue plans for severe weather

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 5.5

Action considered: Encourage First Responders to share resources and equipment

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 5.6

Action considered: Maintain communication and training with military and law enforcement in case of enemy attack

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

Action ID: 5.7

Action considered: Clear driveways of first responders in order to ensure quicker response times

STAPLEE Criteria	S Social		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	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: Complete

Jurisdiction: Blue Grass

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 1.2

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	S Social		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	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: About $50

Benefit: Fast warning times

Cost/Funding Source: Minimal - Individual citizens

Responsible Party: Police, Fire

Timeframe for Completion: Complete

Action ID: 1.3

Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria	S Social		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	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: Incomplete (0-5 years)

Action ID: 2.1

Action considered: Join the National Flood Insurance Program

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	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: Incomplete (0-5 years)

Action ID: 2.2

Action considered: Ensure hazardous materials sites are monitored

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 2.3

Action considered: Ensure hydrants are maintained and well identified

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Remove

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 Social		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	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: Ongoing – Continuous Cycle

Action ID: 4.1

Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.2

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.3

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.4

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

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	S Social		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	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

Timeframe for Completion: Ongoing – In Process

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	S Social		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	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: Ongoing – In Process

Action ID: 4.7

Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria	S Social		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	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: Establish network

Benefit: Health and safety

Cost/Funding Source: Minimal

Responsible Party: Mayor, Council

Timeframe for Completion: Ongoing – In Process

Action ID: 5.1

Action considered: Make sure hazardous materials sites keep their inventory of materials current

STAPLEE Criteria	S Social		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	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 Dept. to follow up annually

Benefit: Safety of First Responders

Cost/Funding Source: Minimal/staff time

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 5.2

Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 5.3

Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria	S Social		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	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: 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 – In Process

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 Social		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	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: Incomplete (0-5 years)

Action ID: 1.2

Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	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: Ongoing – In Process

Action ID: 2.1

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	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 – Continuous Cycle

Action ID: 3.1

Action considered: Replace or retrofit bridges and culverts to meet capacity requirements

STAPLEE Criteria	S Social		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	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: -

Responsible Party: Public Works Director

Timeframe for Completion: Complete

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	S Social		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	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: Ongoing – Continuous Cycle

Action ID: 4.1

Action considered: Communicate the locations of community shelters

STAPLEE Criteria	S Social		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	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: 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: Incomplete (1-2 Years)

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 Social		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	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: Ingoing – In Process

Jurisdiction: Davenport

Action ID: 1.1

Action considered: Maintain and enhance city procedures for communicating flood, weather and transportation related warnings and advisories when risk to people and property are possible, probable or imminent

STAPLEE Criteria	S Social		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	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: Provides earlier and/or better warnings for emergency responders and public; reduced risk of loss of life

Cost/Funding Source: N/A

Responsible Party: PW, DPD, DFD, and PIO

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Fund flood & other mitigation programs either as cost share for grants or full funding (Flood Acquisition Program FAP), for buyout/demolition, elevation, flood-proofing actions and safe room construction

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing

Action ID: 1.3

Action considered: Conduct & document inspections and M&O activities for Garden Addition levee and IA-American floodwall projects

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	n/a	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+

Comments:

Benefit: Enhances protection for flood prone properties

Cost/Funding Source: N/A

Responsible Party: CPED

Timeframe for Completion: Ongoing

Action ID: 1.4

Action considered: Continue DFD HAZMAT program

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+

Comments:

Benefit: Provides emergency response for environmental hazards; reduces risk of loss of life

Cost/Funding Source: Local-Service fees

Responsible Party: DFD

Timeframe for Completion: Ongoing

Action ID: 1.5

Action considered: Adopt e-Plan review for ensuring accountability, consistency or review and application of codes for all buildings and land improvement assuring enforcement of all codes

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	-	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+

Comments:

Benefit: Improve review process to ensure accountability and consistency with city code

Cost/Funding Source: Local

Responsible Party: CPED

Timeframe for Completion: 0-5 years

Action ID: 1.6

Action considered: Maintain/update disease and pest management plans for City's Urban Forest. Reduce hazards of dead/dying trees; grow tree canopy; reduce heat islands

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	n/a	+	+	n/a	+	+	+	n/a	+	+	+	n/a	+	+	+	+	n/a

Comments:

Benefit: Improve the city aesthetics and the benefits of trees in an urban environment. Improve reliability of transportation network. Avoid potential threat to human wellness from extreme heat

Cost/Funding Source: N/A

Responsible Party: CPED

Timeframe for Completion: 0-5 years

Action ID: 2.1

Action considered: Continue program compliance and accreditations for NFIP, CRS (upgrade CRS class), StormReady Community, Weather Ready Nation Ambassador and STAR Community programs, among others.

STAPLEE Criteria	S Social		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	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. Provides for reduced insurance rates for citizens

Cost/Funding Source: N/A

Responsible Party: CPED, PW

Timeframe for Completion: Ongoing

Action ID: 2.2

Action considered: Continue to maintain and implement a comprehensive Stormwater Management and Floodplain Management Plans that address the regulations, policies, procedures, inspection, maintenance and capital improvement planning and prioritization of natural and built surface water infrastructure, including but not limited to: streams and streambanks; detention, retention, and infiltration practices; levee system; and structural and non-structural flood control measures, structures, and systems.

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	+	+	+	+	n/a	+	n/a	n/a

Comments:

Benefit: Reduces risk of loss of life and property

Cost/Funding Source: N/A

Responsible Party: CPED, PW

Timeframe for Completion: Ongoing

Action ID: 2.3

Action considered: Develop and implement public and private stream buffer regulations, policies, and procedures, and include in revisions to Subdivision and Flood Damage Prevention ordinances

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	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

Timeframe for Completion: Ongoing

Action ID: 2.4

Action considered: Inspect and evaluate private stream/streambank conditions not previously inspected as funding is available and continue regular creek inspection and bank stabilization programs

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	n/a	+	+	+	+	+	-	+	+	+	+	+	n/a	+	+	n/a	n/a	+	+	n/a	+	n/a

Comments:

Benefit: Enhances protection for flood prone properties

Cost/Funding Source: N/A

Responsible Party: CPED, PW

Timeframe for Completion: 0-5 years

Action ID: 2.5

Action considered: Develop for future implementation a residential infiltration program to mitigate the effects of increased impervious surface/build-out

STAPLEE Criteria	S Social		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	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: Reduces risk for flood prone properties

Cost/Funding Source: N/A

Responsible Party: CPED, PW

Timeframe for Completion: Ongoing

Action ID: 3.1

Action considered: Fund and implement approved river front flood mitigation measures as identified in RiverVision, Riverfront Conceptual Development Plan and the Davenport Flood Mitigation Study

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	n/a	+	+	+	+	-	n/a	+	+	+	+	+	+	+	+	n/a	-	n/a	n/a	n/a	n/a	n/a

Comments:

Benefit: Enhances protection for flood prone properties

Cost/Funding Source: Grants

Responsible Party: PW, CPED

Timeframe for Completion: Ongoing

Action ID: 3.2

Action considered: Develop and conduct periodic risk and vulnerability assessments of critical facilities for corrective action that reduces or eliminates risk or vulnerability

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	n/a	+	+	+	+	+	-	+	+	+	+	+	n/a	+	+	n/a	n/a	+	+	n/a	+	n/a

Comments:

Benefit: Reduce risk and vulnerability to critical facilities

Cost/Funding Source: Local

Responsible Party: CPED, PW

Timeframe for Completion: Ongoing

Action ID: 4.1

Action considered: Maintain, continue to enhance/implement public education/outreach programs with respect to hazards. Develop and implement a Program for Public Information based on the CRS

STAPLEE Criteria	S Social		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	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: Support/partner with Scott County efforts to establish a Safeguard Iowa Chapter

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Comments:

Benefit: Enhance resources for recovery from disasters

Cost/Funding Source: N/A

Responsible Party: CPED, Scott County Health Department

Timeframe for Completion: 0-3 years

Action ID: 4.3

Action considered: Identify and map at risk/vulnerable populations based on age, disability and income. Target outreach to groups

STAPLEE Criteria	S Social		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	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: 4.4

Action considered: Maintain and enhance all relevant hazard mitigation, preparedness and response GIS data and services(up-to-date and ready for use) including but not limited to: asset and infrastructure detail, flood risk data, HAZUS – MH (multi-hazard), US National Grid and locally defined map grid services, IDNR watershed details, rail infrastructure and most recent land contour data received during aerial photography.

STAPLEE Criteria	S Social		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	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: Ensures the best information is available to respond to hazardous incidents

Cost/Funding Source: Local

Responsible Party: CPED, IT

Timeframe for Completion: Ongoing

Action ID: 4.5

Action considered: Develop and maintain resource inventories of equipment type and personnel credentials/certifications for use during disasters

STAPLEE Criteria	S Social		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	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: Ensures the best information is available to respond to hazardous incidents

Cost/Funding Source: Local

Responsible Party: PW, IT, HR

Timeframe for Completion: Ongoing

Action ID: 4.6

Action considered: Develop resiliency plans (post disaster recovery planning) by utilizing data from past and continued participation in the Notre Dame Global Adaptation Initiative, ND-Gain Urban Adaptation Assessment and STAR Community programs

STAPLEE Criteria	S Social		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	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: Prepares for potential disasters based on best information available

Cost/Funding Source: Local

Responsible Party: CPED

Timeframe for Completion: Ongoing

Action ID: 4.7

Action considered: Maintain, train/exercise and enhance the city's Flood Plan and associated resources

STAPLEE Criteria	S Social		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	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: Prepares for potential disasters and improves city's response to reduce loss of life and property

Cost/Funding Source: Local

Responsible Party: CPED, PW, PIO, DFD, DPD

Timeframe for Completion: Ongoing

Action ID: 4.8

Action considered: Develop, maintain, train/exercise and enhance the city's Debris Management Plan and associated resources

STAPLEE Criteria	S Social		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	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: Prepares for potential disasters and improves city's response to reduce loss of life and property

Cost/Funding Source: Local

Responsible Party: CPED, PW, PIO, DFD, DPD

Timeframe for Completion: Ongoing

Action ID: 4.9

Action considered: Maintain, train/exercise and enhance the city's Snow and Ice Control Plan and associated resources

STAPLEE Criteria	S Social		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	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: Prepares for potential disasters and improves city's response to reduce loss of life and property

Cost/Funding Source: Local

Responsible Party: CPED, PW, PIO, DFD, DPD

Timeframe for Completion: Ongoing

Action ID: 5.1

Action considered: Participate in and engage stakeholders in periodic maintenance and exercises of the Davenport/Scott County Local Energy Assurance Plan

STAPLEE Criteria	S Social		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	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: Provides for continued assessment with changing circumstances

Cost/Funding Source: N/A

Responsible Party: CPED, PW

Timeframe for Completion: Ongoing

Action ID: 5.2

Action considered: Participate in developing flood inundation mapping resources with the Iowa flood Center when opportunity is identified

STAPLEE Criteria	S Social		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	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: Ensures the best information is available to respond to hazardous incidents

Cost/Funding Source: Local

Responsible Party: IT, CPED

Timeframe for Completion: Ongoing

Jurisdiction: Dixon

Action ID: 1.1

Action considered: Promote use of NOAA Weather Radios

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 1.2

Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	–	+	+	+	+	+	n/a	+	–	n/a	+	n/a	n/a	n/a	n/a	n/a

Comments:

Benefit: Safer roads during storms

Cost/Funding Source: $500 City Budget Road Use Line Item

Responsible Party: City Maintenance

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 2.1

Action considered: Ensure hydrants are maintained and well identified

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.1

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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: Church quarter newsletter or monthly water bill

Benefit: Public awareness

Cost/Funding Source: Minimal

Responsible Party: Mayor

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.2

Action considered: Develop a check-on neighbor program for vulnerable populations

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

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 Social		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	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

Timeframe for Completion: Ongoing – In Process

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 Social		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	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 – In Process

Action ID: 1.2

Action considered: Enforce building codes for prevailing winds

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 1.3

Action considered: Evaluate traffic hazards in likely areas

STAPLEE Criteria	S Social		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	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: 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 – Continuous Cycle

Action ID: 2.1

Action considered: Enforce flood plain regulations

STAPLEE Criteria	S Social		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	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: 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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 2.2

Action considered: Enforce property maintenance and building codes

STAPLEE Criteria	S Social		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	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: 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 – Continuous Cycle

Action ID: 2.3

Action considered: Evaluate storm sewer system and detention ponds

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 3.1

Action considered: Have a water conservation plan in place

STAPLEE Criteria	S Social		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	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: 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 – In Process

Action ID: 3.2

Action considered: Maintain water system (adequate well, storage and treatment capacity)

STAPLEE Criteria	S Social		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	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: 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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.1

Action considered: Make sure hazardous materials warning signs are posted as required

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.2

Action considered: Educate public on thunderstorms and lightning, windstorm hazards and tornados and inform on siren use

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.3

Action considered: Inform public on value of managing trees properly (remove dead branches, etc.)

STAPLEE Criteria	S Social		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	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: 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 – Continuous Cycle

Action ID: 4.4

Action considered: Inform public on availability of emergency shelter

STAPLEE Criteria	S Social		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	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: Gives public options during power emergencies and times of severe weather

Cost/Funding Source: Minimal – general fund

Responsible Party: Administration

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.5

Action considered: Educate public on need to be prepared for severe winter storms

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.6

Action considered: Educate public to stay indoors during severe winter storms, thunderstorms and lightning, tornados and hailstorms

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.7

Action considered: Educate public on need for water conservation

STAPLEE Criteria	S Social		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	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: Community is prepared during emergency

Cost/Funding Source: Minimal

Responsible Party: Administration and Utility Departments

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 5.1

Action considered: Verify siren operation

STAPLEE Criteria	S Social		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	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: 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 Social		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	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: 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 – Continuous Cycle

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 Social		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	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: Ongoing – In Process

Action ID: 1.2

Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 1.3

Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

Action ID: 2.1

Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 3.1

Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteria	S Social		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	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.

Timeframe for Completion: Complete

Action ID: 3.2

Action considered: Complete watershed and hydrology studies of the creeks and rivers within Scott County

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 3.3

Action considered: Utilize traffic calming measures

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 3.4

Action considered: Identify critical facilities such as lift stations where back-up power generators should be installed

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Complete

Action ID: 3.6

Action considered: Develop stream modification/channel improvement project

STAPLEE Criteria	S Social		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	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: Incomplete

Action ID: 3.7

Action considered: Remove asbestos from public buildings

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	–	–	+	+	+	+	+	+	+	+	–	+	+	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

Timeframe for Completion: Incomplete

Action ID: 4.1

Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 4.2

Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.3

Action considered: Communicate the locations of community shelters

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

Action ID: 5.1

Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	–	+	+	+	+	+	+	–	+	+	+	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: Ongoing – Continuous Cycle

Action ID: 5.2

Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

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	S Social		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	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 – Continuous Cycle

Jurisdiction: Long Grove

Action ID: 2.1

Action considered: Adopt and enforce most current building codes

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 3.1

Action considered: Construct sand and salt storage facility

STAPLEE Criteria	S Social		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	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: 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: Complete

Action ID: 3.2

Action considered: Ensure each public critical facility has back-up generators

STAPLEE Criteria	S Social		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	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: 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: Complete

Action ID: 3.3

Action considered: Install second well

STAPLEE Criteria	S Social		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	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: Complete

Action ID: 3.4

Action considered: Adopt SUDAS for Infrastructure Construction standards

STAPLEE Criteria	S Social		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	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: 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: Ongoing – In Process

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 Social		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	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 – Continuous Cycle

Action ID: 4.2

Action considered: Communicate the location of community shelter

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.3

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Jurisdiction: McCausland (Non-Participating)

Action ID: 1.1

Action considered: Pre-treat roads before severe winter storms

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	n/a	+	n/a	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a

Comments:

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 Social		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	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 Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 2.1

Action considered: Join the National Flood Insurance Program

STAPLEE Criteria	S Social		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	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: 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	S Social		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	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

Timeframe for Completion: Ongoing

Action ID: 3.2

Action considered: Identify critical facilities such as lift stations where back-up power generators should be installed

STAPLEE Criteria	S Social		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	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: 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 Social		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	Consistent w/ Federal Laws
	+	+	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

Timeframe for Completion: Ongoing

Action ID: 4.2

Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	S Social		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	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 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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.4

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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 Social		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	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

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

STAPLEE Criteria	S Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.8

Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria	S Social		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	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 (Non-Participating)

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	S Social		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	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 Social		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	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 Social		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	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 Social		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	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: 4.2

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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 Social		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	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: 4.4

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria	S Social		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	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: 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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.6

Action considered: Develop a check-on-neighbor program for vulnerable populations

STAPLEE Criteria	S Social		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	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

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 Social		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	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

Timeframe for Completion: Ongoing

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 Social		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	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 Social		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	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: Ongoing

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 Social		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	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 Social		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	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

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 Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 1.2

Action considered: Create detour and road closure plans for flooded areas

STAPLEE Criteria	S Social		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	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 Criteria	S Social		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	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: 1.4

Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria	S Social		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	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 Social		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	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: 2.1

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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 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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 2.3

Action considered: Develop and implement stormwater regulations and drainage plans

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	n/a	+	+

Comments:

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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: 4.2

Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	S Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.4

Action considered: Communicate the location of community shelters

STAPLEE Criteria	S Social		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	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 Social		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	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: Hazard Mitigation Grants

Responsible Party: Scott County Planning and Development

Timeframe for Completion: 0-5 years

Action ID: 4.6

Action considered: Encourage citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.7

Action considered: Develop a check-on- neighbor program for vulnerable populations

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing

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 Social		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	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 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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 4.10

Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria	S Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Action ID: 5.1

Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	S Social		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	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 Social		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	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

Timeframe for Completion: Ongoing

Jurisdiction: Princeton (Non-participating)

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	S Social		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	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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	+

Comments:

Benefit:

Cost/Funding Source: Minimal

Responsible Party: Fire Department and Public Works Department

Timeframe for Completion: 0-5 years

Action ID: 1.3

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	-	+	-	+	+	+	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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	+	+	n/a

Comments:

Benefit:

Cost/Funding Source: N/A

Responsible Party: Princeton Fire Department

Timeframe for Completion: 0-5 years

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

STAPLEE Criteria	S Social		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	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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	n/a	+	+	n/a

Comments:

Benefit:

Cost/Funding Source: N/A

Responsible Party: City

Timeframe for Completion: 0-5 years

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 Social		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	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. 6th 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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	n/a	+	+	+	+	+	+	+	+	n/a

Comments:

Benefit:

Cost/Funding Source: N/A

Responsible Party: Public Works Department, Fire Department, DNR

Timeframe for Completion: Ongoing

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	–	+	+	+	+	+	+	+	+	+

Comments:

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 Social		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	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

STAPLEE Criteria	S Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	n/a	+	+	+	n/a	+	+	n/a	+	+	+	+	+	n/a

Comments:

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 Social		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	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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	–	+	n/a	+	+	+	–	n/a	+	–	+	+	-	+	–	+

Comments:

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 Social		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	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: Ongoing – In Process

Action ID: 1.2

Action considered: Maintain existing fire equipment

STAPLEE Criteria	S Social		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	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 and rescue equipment in a response ready state

Cost/Funding Source: Riverdale's annual budget

Responsible Party: Fire Chief

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 1.3

Action considered: Purchase additional fire equipment as required

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	n/a	–	–	+	+	–	+	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: Complete

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 Social		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	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 – Continuous Cycle

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	n/a	–	–	+	+	-	+	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: Ongoing – Continuous Cycle

Action ID: 5.1

Action considered: Continue education and certification of firefighters

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Jurisdiction: Walcott

Action ID: 1.1

Action considered: Ensure First Responders are aware of hazardous materials kept at each site

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 1.2

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	S Social		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	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: 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 – Continuous Cycle

Action ID: 1.3

Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria	S Social		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	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: Incomplete (5-10 years)

Action ID: 1.4

Action considered: Monitor tree health and remove damaged or weak branches

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

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 Social		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	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: Ongoing – In Process

Action ID: 4.1

Action considered: Educate the public on the dangers of lightning

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.2

Action considered: Notify the public on warming shelter locations

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.3

Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.4

Action considered: Communicate snow removal policies with the public to ensure most efficient removal of snow

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.5

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.6

Action considered: Educate citizens on fire hazards and what to do in the event of a fire

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 4.7

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

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 Social		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	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 – Continuous Cycle

Action ID: 4.9

Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

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 Social		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	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 – Continuous Cycle

Action ID: 1.2

Action considered: Create detour and road closure plans for flooded areas

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 1.3

Action considered: Promote use of NOAA weather radios

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 1.4

Action considered: Consider safe room construction where vulnerable populations may not have other sources of shelter

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

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 Social		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	Consistent w/ Federal Laws
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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 – Continuous Cycle

Action ID: 1.6

Action considered: Ensure each public critical facilities have back-up generators

STAPLEE Criteria	S Social		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	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 – In Process

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 Social		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	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: Ongoing – Continuous Cycle

Action ID: 2.1

Action considered: Continue NFIP compliance by enforcing floodplain ordinances based on the State of Iowa Model Code

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 2.2

Action considered: Adopt and enforce current building codes

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 2.3

Action considered: Encourage development where adequate facilities and infrastructure exists

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 2.4

Action considered: Develop and implement stormwater regulations and drainage plans

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 2.5

Action considered: Participate in the Community Rating System

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 3.1

Action considered: Be proactive with virus protection and store back-up data in offsite location

STAPLEE Criteria	S Social		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	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 – Continuous Cycle

Action ID: 3.2

Action considered: Complete watershed and hydrology studies of the creeks and rivers within Scott County

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

Action ID: 3.3

Action considered: Replace or retrofit bridges and culverts to meet capacity requirements

STAPLEE Criteria	S Social		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	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: Ongoing – Continuous Cycle

Action ID: 4.1

Action considered: Educate the public and businesses about NFIP and the floodplain in general

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.2

Action considered: Educate the public on the dangers of traveling during severe winter storms

STAPLEE Criteria	S Social		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	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: Remove

Action ID: 4.3

Action considered: Educate the public on the dangers of tornados and what to do during a tornado

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.4

Action considered: Communicate the locations of community shelters

STAPLEE Criteria	S Social		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	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: Incomplete

Action ID: 4.5

Action considered: Educate citizens on the importance of smoke detectors and encourage their use

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.6

Action considered: Create multi-lingual educational materials for hazards

STAPLEE Criteria	S Social		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	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: Incomplete

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 Social		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	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 residents

Benefit: Residents of Scott County

Cost/Funding Source: Existing tipping fees

Responsible Party: Waste Commission of Scott County

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 4.8

Action considered: Encourage the public to check on the disabled, elderly, and other vulnerable populations

STAPLEE Criteria	S Social		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	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: Incomplete (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 Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 5.1

Action considered: Require First Responders to have rescue plans for severe weather

STAPLEE Criteria	S Social		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	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: Incomplete

Action ID: 5.2

Action considered: Encourage First Responders to share resources and equipment and have intergovernmental agreements in place

STAPLEE Criteria	S Social		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	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

Timeframe for Completion: Ongoing – Continuous Cycle

Action ID: 5.3

Action considered: Join the Iowa Floodplain and Stormwater Management Association

STAPLEE Criteria	S Social		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	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: Incomplete

Action ID: 5.4

Action considered: Establish workshops and training functions for all community floodplain managers

STAPLEE Criteria	S Social		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	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: Incomplete

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 Social		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	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: Ongoing – In Process

Action ID: 1.2

Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

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 Social		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	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: Complete

Action ID: 1.2

Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria	S Social		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	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	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: Ongoing – In Process

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 Social		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	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 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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

Action ID: 1.2

Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

Action ID: 1.2

Action considered: Ensure each public critical facilities have backup generators

STAPLEE Criteria	S Social		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	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: Ongoing – In Process

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 Social		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	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: Ongoing – In Process

APPENDIX V-1 PLAN UPDATES

This appendix serves as a placeholder for any updates that may occur in between plan updates.

APPENDIX VI-1 MAN-MADE OR HUMAN-CAUSED HAZARDS FROM SCOTT COUNTY, IOWA MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN, 2012

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	**Magnitude/Severity**	**Warning Time**	**Duration**	**Weighted Score**
0.46	0.56	0.59	0.30	1.91

Evaluation Criteria	Description
	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.
	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.
	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.
	Agro–terrorism could occur in most parts of Scott County. However, an incident would be mainly confined to the agricultural facility affected.
	A. *Health and safety of persons in affected areas:* Depending on the type of incident, safety could be affected especially when chemicals are involved. B. *Health and safety of response personnel:* Depending on the type of incident, safety could be affected especially when chemicals are involved. C. *Continuity of operations:* Depends on the location and extent of incident. D. *Property, facilities, and infrastructure:* Damage and/or destruction likely in case of an event. E. *Delivery of services:* Depends on the location and extent of incident. F. *Environment:* Depends on location and extent of incident. 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. 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. I. *Reputation of the entity:* No known impact.
	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)	*USDA Homeland Security Efforts* *http://www.usda.gov/documents/factsheet0504.pdf*

Please note that these profiles have not been updated since the *2012 Scott County Multijurisdictional Hazard Mitigation Plan* was adopted. They were retained in this appendix for reference. Maps noted are not included in this document. Said maps can be found in the full version of the previous plan.

Air Transportation Incident

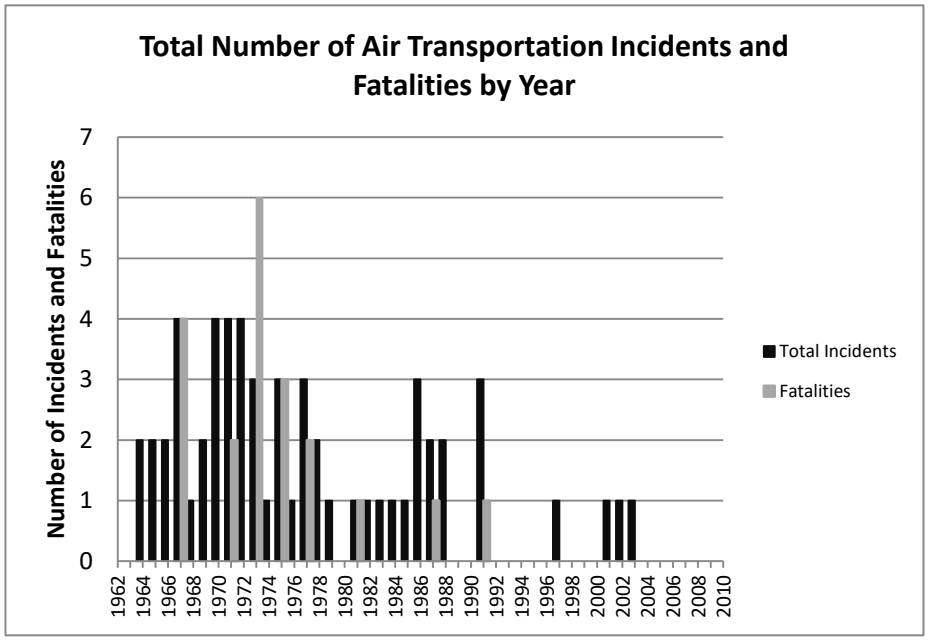
Definition: Any incident involving a military, commercial, or private aircraft.

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
	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 pre-existing crack on one of the wings that had not been detected in previous inspections.

Evaluation Criteria	Description
	
	Based on the information provided by the National Transportation Board, Scott County is likely to experience over one incident in any given year (100% chance). There is a 19% chance an incident will include a fatality; however there is a high likelihood of multiple fatalities in occurring during those incidents.
	People aboard airplanes are the most vulnerable. Statistics from the National Transportation Safety Board and the airline industry show that the majority (over 75%) of airplane crashes and accidents occur during the takeoff and landing phases of a flight. As a result, developed areas adjacent to the airports and in airport flight paths are particularly vulnerable to this hazard. For areas away from the airport, a smaller percentage of the population would be directly in the area of impact. Because of the infrequency of aircraft in the skies above areas away from the airport, these areas would not be considered as vulnerable. Damages in dollar amounts were not reported; so no estimates on potential loss can be made at this time. Damages would be repairs or replacement of airplanes, repairs to facilities, and medical/legal costs associated with any incident.
	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. Following is the breakdown of where incidents occurred.

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Location</th><th>Number of Incidents</th><th>Fatalities</th><th>Serious Injuries</th><th>Minor or No Injuries</th></tr>
<tr><td>Bettendorf</td><td>1</td><td>0</td><td>0</td><td>2</td></tr>
<tr><td>Davenport</td><td>46</td><td>18</td><td>4</td><td>69</td></tr>
<tr><td>Dixon</td><td>2</td><td>1</td><td>0</td><td>2</td></tr>
<tr><td>Donahue</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Durant</td><td>1</td><td>0</td><td>0</td><td>4</td></tr>
<tr><td>Eldridge</td><td>2</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>LeClaire</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Maysville</td><td>3</td><td>0</td><td>0</td><td>8</td></tr>
<tr><td>New Liberty</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
</table>
</td></tr>
<tr><td></td><td>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.
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.</td></tr>
<tr><td></td><td>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.</td></tr>
</table>

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 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. Plant Disease outbreaks in Scott County: • 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. • 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. • 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.

Evaluation Criteria	Description
	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 Diseases		
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
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		
Root Rots		

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Corn</th><th></th><th></th></tr>
<tr><td>Seed Decay and Seedling Blight</td><td></td><td></td></tr>
<tr><td>Southern Leaf Blight</td><td></td><td></td></tr>
<tr><td>Southern Rust</td><td></td><td></td></tr>
<tr><td>Stewart's Disease</td><td></td><td></td></tr>
<tr><td>Trichoderma Ear Rot</td><td></td><td></td></tr>
</table>
<table>
<tr><th colspan="3">Animal Diseases (Present in the United States)</th></tr>
<tr><th>Cattle</th><th>Swine</th><th>Multiple Species Diseases</th></tr>
<tr><td>Bovine Anaplasmosis</td><td>Porcine Reproductive and Respiratory Syndrome</td><td>Anthrax</td></tr>
<tr><td>Bovine Genital Campylobacteriosis</td><td>Transmissible Gastroenteritis</td><td>Aujeszky's Disease</td></tr>
<tr><td>Bovine Tuberculosis</td><td></td><td>Bluetongue</td></tr>
<tr><td>Bovine Viral Diarrhea</td><td></td><td>Brucellosis</td></tr>
<tr><td>Enzootic Bovine Leucosis</td><td></td><td>Echinococcosis/Hydatidosis</td></tr>
<tr><td>Infectious Bovine Rhinotracheitis/ Infectious Pustular Vulvovaginitis</td><td></td><td>Leptospirosis</td></tr>
<tr><td>Trichomonosis</td><td></td><td>Paratuberculosis (Johne's Disease)</td></tr>
<tr><td></td><td></td><td>Q Fever</td></tr>
<tr><td></td><td></td><td>Rabies</td></tr>
<tr><td></td><td></td><td>Tularemia</td></tr>
<tr><td></td><td></td><td>West Nile Virus/Encephalitis</td></tr>
</table>
</td></tr>
<tr><td></td><td>The majority of the agriculture is located in the north-west portion of the county, where the majority of the crop diseases could occur. Plant and animal diseases can occur anywhere within the county. See Map III-2 for locations of Emerald Ash Borer in the United States.</td></tr>
<tr><td></td><td>A. Health and safety of persons in affected areas: Depending on the severity and type of diseases and whether or not they could spread to humans, there could be a high risk for health concerns.
B. Health and safety of response personnel: Limited, if any.
C. Continuity of operations: Depending on type and scale of outbreak. A large animal or crop disease could have a major impact on the agricultural industry.
D. Property, facilities, and infrastructure: None directly.
E. Delivery of services: None directly, unless products were coming from quarantined areas.
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: Depends on how situation is handled.</td></tr>
<tr><td></td><td>If the diseases or pests are highly infectious (many animals that are infected with the disease can be transmitting disease before they show clinical signs), by the time they are discovered, they will 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 to prevent further spreading.</td></tr>
</table>

Sources	
State of Iowa, IHSEMD	*Iowa Hazard Mitigation Plan, 2007* *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.htm* *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 Agricultural Statistics Service	*2007 Census of Agriculture, Scott County Iowa Profile – http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/Iowa/cp19163.pdf*
U.S Department of Agriculture Animal and Plant Health Inspection Service	*2008 Untied States Animal Health Report - http://www.aphis.usda.gov/animal_health/animal_health_report/downloads/AHR_08/2008_US_Animal_Health_Report.pdf*
U.S. Department of Agriculture Animal and Plant Health Inspection Service	*Emerald Ash Borer Quarantine Map (September 16, 2010) - http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_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
	There have been no known acts of biological terrorism in Scott County.
	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.
	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.
	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.

Evaluation Criteria	Description
	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. B. *Health and safety of response personnel:* Responders may not initially be aware that they 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 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
	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.
	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.
	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.
	Incidents of a terrorist attack can take place anywhere in the county; there is no way of telling where an incident could take place.
	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. 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. C. *Continuity of operations:* Depends on location of incident. D. *Property, facilities, and infrastructure:* Chemicals may be corrosive or otherwise damaging over time if not remediated. E. *Delivery of services:* Depends on location of event. 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.

Evaluation Criteria	Description
	G. *Economic and financial conditions:* Adverse effects intended in terrorism, but unknown at this time. 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 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
	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.
	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.
	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.
	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.
	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. B. *Health and safety of response personnel:* None directly. C. *Continuity of operations:* Inter-agency and intra-agency communications would be limited. Data transmission could also be affected. D. *Property, facilities, and infrastructure:* Financial losses would be incurred due to the direct damage to electronic equipment and the communications infrastructure. 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

Evaluation Criteria	Description
	of their needs. The event of a full system overload is reduced by having more than one service provider. F. *Environment:* None directly. Failed communications could result in malfunctioning systems and potential does exist for facilities to discharge hazardous materials into the environment. 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. H. *Regulatory and contractual obligations:* None known. 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.
	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
	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).
	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.
	Energy decreases logarithmically as a function of distance from the seat of the blast. Terrain, forestation, structures, etc. can provide shielding by absorbing or deflecting energy and debris. 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 2002 mailbox bombing so no estimate of potential loss is available at this time. Damages could range from negligible to catastrophic depending on individual incidents.
	Incidents of a terrorist attack can take place anywhere in the county. There is no way of telling where an incident could take place.

	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. B. *Health and safety of response personnel:* Could be severe. C. *Continuity of operations:* Depends on location of incident. D. *Property, facilities, and infrastructure:* Damage and/or destruction likely intent of terrorist event. E. *Delivery of services:* Depends on location of incident. F. *Environment:* Depends on scope and location of incident. G. *Economic and financial conditions:* Threats and scares have psychological effects and disrupt activities at a cost to productivity. H. *Regulatory and contractual obligations:* No known impact. I. *Reputation of the entity:* No known impact.
	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 given 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	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. B. *Health and safety of response personnel:* None directly. 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.

Evaluation Criteria	Description
	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. E. *Delivery of services:* Only effects would result if system was infiltrated and directed to 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/*

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
	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 a fixed facility between 1995 and February of 2010 by jurisdiction and the average number of incidents per year.

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

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Jurisdiction</th><th>Fixed Hazardous Materials Incidents</th><th>Average Number of Incidents per Year</th></tr>
<tr><td>City of Donahue</td><td>1</td><td>0.07</td></tr>
<tr><td>City of Eldridge</td><td>16</td><td>1.13</td></tr>
<tr><td>City of LeClaire</td><td>9</td><td>0.64</td></tr>
<tr><td>City of Long Grove</td><td>3</td><td>0.21</td></tr>
<tr><td>City of Maysville</td><td>1</td><td>0.07</td></tr>
<tr><td>City of McCausland</td><td>2</td><td>0.14</td></tr>
<tr><td>City of New Liberty</td><td>1</td><td>0.07</td></tr>
<tr><td>City of Panorama Park</td><td>0</td><td>0.00</td></tr>
<tr><td>City of Princeton</td><td>6</td><td>0.42</td></tr>
<tr><td>City of Riverdale</td><td>14</td><td>0.99</td></tr>
<tr><td>City of Walcott</td><td>15</td><td>1.06</td></tr>
<tr><td>Unincorporated Area</td><td>11</td><td>0.78</td></tr>
</table>
</td></tr>
<tr><td></td><td>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.</td></tr>
<tr><td></td><td>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 City of Davenport, which also has the largest amount of industrial land. Other jurisdictions with a larger portion of the fixed-hazardous materials facilities include the Cities of Bettendorf, Eldridge, and Walcott. Fixed-hazardous material facilities within Scott County tend to cluster along the railroads as well as major highways and interstates.</td></tr>
<tr><td></td><td>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.
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.
C. Continuity of operations: None directly unless the incident occurs on or near critical facilities or services.
D. Property, facilities, and infrastructure: Damage is usually limited to the immediate property involved. Proper decontamination is needed before facilities go back in service.</td></tr>
</table>

Evaluation Criteria	Description
	E. *Delivery of services:* Contaminated water resources may be unsafe and unusable, depending on the amount of contaminant. 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 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 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	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. 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:* Power plants may be taken off line for extended periods of time. Other effects would be indirect and only if in the contaminated area. F. *Environment:* Damage to the environment can be very long-lasting depending on the half-life of the products involved. 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. 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. 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.
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*

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.

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td>Location</td><td>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.
<table>
<tr><th>Place</th><th>Crashes</th><th>Fatalities</th><th>Injuries</th><th>Major Injuries</th><th>Minor Injuries</th><th>Possible Injuries</th><th>Unknown Injuries</th></tr>
<tr><td>Unincorporated Scott Co.</td><td>338</td><td>4</td><td>112</td><td>12</td><td>37</td><td>62</td><td>1</td></tr>
<tr><td>Bettendorf</td><td>544</td><td>1</td><td>233</td><td>9</td><td>85</td><td>139</td><td>0</td></tr>
<tr><td>Blue Grass</td><td>4</td><td>0</td><td>4</td><td>1</td><td>2</td><td>1</td><td>0</td></tr>
<tr><td>Buffalo</td><td>11</td><td>0</td><td>5</td><td>1</td><td>0</td><td>4</td><td>0</td></tr>
<tr><td>Davenport</td><td>2960</td><td>6</td><td>1223</td><td>73</td><td>341</td><td>774</td><td>35</td></tr>
<tr><td>Donahue</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Eldridge</td><td>54</td><td>0</td><td>14</td><td>0</td><td>5</td><td>7</td><td>2</td></tr>
<tr><td>LeClaire</td><td>21</td><td>3</td><td>5</td><td>1</td><td>2</td><td>2</td><td>0</td></tr>
<tr><td>Long Grove</td><td>3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Princeton</td><td>5</td><td>0</td><td>2</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>Riverdale</td><td>9</td><td>0</td><td>2</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>Walcott</td><td>12</td><td>0</td><td>3</td><td>0</td><td>2</td><td>1</td><td>0</td></tr>
</table>
Source: Iowa DOT, Office of Traffic and Safety. Areas Selected Using a Spatial Join of crashes to Corporate Limits using ArcMap (GIS).</td></tr>
<tr><td>Severity</td><td>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 significant impact on the reputation of the jurisdiction.</td></tr>
<tr><td>Speed of Onset</td><td>There is usually no warning of highway incidents. During snow storms and other weather events that may impede travel, travelers, response agencies, and hospitals alike can be notified of hazardous travel conditions.</td></tr>
</table>

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
	Main concerns in Scott County include West Nile Virus and Lyme disease; both of which are transmitted by insects. West Nile virus is transmitted by infected mosquitoes and can cause meningitis or encephalitis in some individuals. There is no vaccination available for West Nile virus, the best way to prevent contracting West Nile is to use insect repellent, wear long sleeve clothing, and avoid high mosquito activity hours (dawn and dusk). The Scott County Health Department works in conjunction with Iowa State University to monitor and test for infected mosquitoes in the county; the yearly cost is $2,500. Scott County has not had a confirmed case of West Nile since 2005. Lyme disease is caused by the bacterium transmitted by infected blacklegged ticks. Symptoms of Lyme disease include fever, headache, fatigue, and skin rash. The best way to prevent Lyme disease is to use insect repellent, remove ticks promptly, and keeping yards cleaned up of brush and weeds. The risk of human infection is the greatest in late spring and summer. Scott County averages 5 cases of Lyme disease per year. Scott County does not have a Lyme disease program; they partner with Iowa State University who tests for Lyme disease on ticks that have been collected off people. The county does not run or pay for this program. The table below shows confirmed cases of both West Nile virus and Lyme disease in Scott County. Scott County has also had past incidents of food borne disease outbreaks and the Norovirus outbreak, none of which have been out of the ordinary or that could not be handled by the county's protocols.

Year	West Nile Virus Confirmed Cases	Lyme Disease Confirmed Cases
2000	n/a	0
2001	0	3
2002	3	7
2003	2	8

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Year</th><th>West Nile Virus Confirmed Cases</th><th>Lyme Disease Confirmed Cases</th></tr>
<tr><td>2004</td><td>0</td><td>6</td></tr>
<tr><td>2005</td><td>1</td><td>3</td></tr>
<tr><td>2006</td><td>0</td><td>5</td></tr>
<tr><td>2007</td><td>0</td><td>6</td></tr>
<tr><td>2008</td><td>0</td><td>9</td></tr>
<tr><td>2009</td><td>0</td><td>11</td></tr>
</table>
</td></tr>
<tr><td></td><td>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 health agencies.</td></tr>
<tr><td></td><td>Public health agencies also work to reduce the impact of communicable diseases in Iowa and to eliminate the morbidity associated with these diseases. Programs guide community-based prevention planning, monitor current infectious disease trends, prevent transmission of infectious diseases, provide early detection and treatment for infected persons, and ensure access to health care for refugees in Iowa. While vaccines are available for many diseases, Iowans remain vulnerable to other diseases known and unknown. The 2010 State of Iowa Hazard Mitigation Plan states that $2,500 in monitoring mosquitoes for West Nile Virus. This does not include the costs of spraying or any other forms of human disease incidents.</td></tr>
<tr><td></td><td>Incident of disease can occur in every part of the county, it is not isolated to a particular area. 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.</td></tr>
<tr><td></td><td>A. Health and safety of persons in affected areas: 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. 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.
C. Continuity of operations: Minor.
D. Property, facilities, and infrastructure: None.
E. Delivery of services: Limited impact on critical services. Healthcare services may be at the limits of capacity.
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.</td></tr>
<tr><td></td><td>The private practitioner is the first line of defense and will undoubtedly be the first to witness the symptoms of human disease incidents. The Scott County Health Department, Iowa Department of Public Health and the Centers for Disease Control (CDC) monitors reports submitted by 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 community on medical concerns.</td></tr>
</table>

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

Evaluation Criteria	Description
	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.S.-born persons compared to only 70% in 2003. The 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	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. 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. C. *Continuity of operations:* Potential for severe or complete disruption. D. *Property, facilities, and infrastructure:* None. E. *Delivery of services:* Healthcare and essential services infrastructure and human resource personnel infrastructure would be affected. F. *Environment:* Potential impact to essential environmental service personnel. 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. H. *Regulatory and contractual obligations:* None known. I. *Reputation of the entity:* None known.
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/*

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
	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.

Evaluation Criteria	Description
	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, 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 *Pipelines* for more information.
Severity	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. 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. 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. 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. 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. F. *Environment:* Effects to the area result from saturating the soil with hazardous materials and/or causing rapid erosion. G. *Economic and financial conditions:* These evacuations potentially save lives and limit injury, but they also disrupt businesses and inconvenience residents. H. *Regulatory and contractual obligations:* None known. 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.
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
	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.
	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.
	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.

	Incidents of public disorders can take place anywhere in the county; there is no way of telling where an incident could take place.
	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. B. *Health and safety of response personnel:* Moderate. C. *Continuity of operations:* Minimal. Usually localized event. D. *Property, facilities, and infrastructure:* Some damages, destruction possible based on nature or unrest. E. *Delivery of services:* Minor impact. F. *Environment:* No impact. G. *Economic and financial conditions:* Business disruptions and damages may occur at location of event. H. *Regulatory and contractual obligations:* Impact unknown. I. *Reputation of the entity:* Depends on how response is handled.
	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
	There have been no historical occurrences of radiological terrorism within Scott County.
	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.
	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.
	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.
	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. 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).

Evaluation Criteria	Description
	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. D. *Property, facilities, and infrastructure:* The extent of destruction to property and 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. *Environment:* 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. G. *Economic and financial conditions:* Disruption of business due to potential evacuations. H. *Regulatory and contractual obligations:* None known. I. *Reputation of the entity:* Could be very damaging because of the high profile of these events. The negative impact can be felt for decades following a contamination.
	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 at-grade 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
	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.
	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.
	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.
	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.
	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. 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. C. *Continuity of operations:* No significant effects. 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.

Evaluation Criteria	Description
	E. *Delivery of services:* Rail transportation routes may be out of commission until the accident is cleaned up and the infrastructure repaired. Cargo will be delayed significantly as well as services that depend on that cargo. F. *Environment:* 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.
	Like other transportation incidents, a railway incident could occur with no warning. There may 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/*

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
	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.
	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.
	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.
	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 *Major Roadways and Bridges* for more information.
	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. 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. C. *Continuity of operations:* Functional purpose of the building would be terminated or suspended until the integrity of the structure could be restored. 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. 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. F. *Environment:* No severe impact to the environment unless the structural failure released a hazardous substance that could contaminate the air, water, or soil. 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. 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. 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.
	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
Historical Occurrence	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. **February 2009:** A three-story abandoned building containing 14 apartments burned at 14th 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. **February 2008:** A Davenport apartment building burned. Six people had to be rescued and 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

Evaluation Criteria	Description
	resulted 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. 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 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. H) *Regulatory and contractual obligations:* No significant impact known. 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 water supply or working hydrants.
Speed of Onset	While fires usually start with little or no warning time, alert devices can allow time for 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*

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	**Magnitude/Severity**	**Warning Time**	**Duration**	**Weighted Score**
1.31	0.49	0.60	0.18	2.58

Evaluation Criteria	Description
	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 Spills 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
City of Bettendorf	35	2.47
City of Blue Grass	2	0.14
City of Buffalo	1	0.07
City of Davenport	88	6.21
City of Dixon	1	0.07
City of Donahue	0	0
City of Eldridge	2	0.14
City of LeClaire	11	0.78
City of Long Grove	2	0.14
City of Maysville	3	0.21
City of McCausland	0	0

<table>
<tr><th>Evaluation Criteria</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>City of New Liberty</td><td>2</td><td>0.14</td></tr>
<tr><td>City of Panorama Park</td><td>0</td><td>0.00</td></tr>
<tr><td>City of Princeton</td><td>3</td><td>0.21</td></tr>
<tr><td>City of Riverdale</td><td>5</td><td>0.35</td></tr>
<tr><td>City of Walcott</td><td>23</td><td>1.62</td></tr>
<tr><td>Unincorporated Area</td><td>22</td><td>1.55</td></tr>
</table>
</td></tr>
<tr><td></td><td>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.</td></tr>
<tr><td></td><td>A hazardous materials incident can occur almost anywhere within Scott County.</td></tr>
<tr><td></td><td>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 the body.
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.
C. Continuity of operations: None directly unless the incident occurs on or near critical facilities or services. Transportation corridors can be shut down for many hours at a time while the scene is stabilized, the product is off-loaded, and reloaded on a replacement container.
D. Property, facilities, and infrastructure: Damage may be limited to the cargo liner involved, but it could also include highway, interstate, or street infrastructure, and adjacent property.
E. Delivery of services: Contaminated water resources may be unsafe and unusable, depending on the amount of contaminant.
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 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: Transportation of hazardous materials is regulated by the Department of Transportation. However, if a release of a hazardous material were to take place, the Department of Natural Resources becomes the regulatory and managing agency.
I. Reputation of the entity: Although citizens are aware of the shipping industry, they may not be aware of the dangers that some cargo may pose. 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 jurisdiction’s reputation.</td></tr>
<tr><td></td><td>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</td></tr>
</table>

Evaluation Criteria	Description
	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
	There have been no occurrences of transportation radiological incidents reported in Scott County or the State of Iowa.
	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%.
	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.
	An accident involving the transportation of hazardous materials can occur anywhere within Scott County.
	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

Evaluation Criteria	Description
	from 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 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
	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.
	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.
	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
	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.
	A. *Health and safety of persons in affected areas:* Effects would be limited to personal injuries and possibly death of the persons directly involved. B. *Health and safety of response personnel:* Small fuel spills could result from damaged watercraft. 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. D. *Property, facilities, and infrastructure:* Property damage would be restricted to the craft involved. 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. F. *Environment:* Environmental damage could affect aquatic flora and fauna, as well as water quality (if hazardous materials are released from boats or barges). G. *Economic and financial conditions:* Varies. 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. 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.
	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	**Body of Water**	**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.

Commercial Waterway Incidents					
Date	**Body of Water**	**Location**	**River Mile**	**River Flow**	**Incident**
					Vessel 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	**Body of Water**	**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	Body of Water	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

Recreational Waterway Incidents					
Date	**Body of Water**	**Location**	**Type of Accident**	**Cost Estimates**	**Incident**
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
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)*