

## **6. Communications Failure Mitigation Activities**

- a. Work in conjunction with Bremer County to acquire a shared Mobile Command Center.
- b. Upgrade radio communications equipment as needed.
- c. Regularly review and amend Fire, Medical, and Hazardous Material response standard operating procedures.
- d. Install Global Positioning Systems in all emergency vehicles.
- e. Purchase new generators to provide emergency power in times of need

## **7. Fire Mitigation Activities**

- a. Upgrade radio communications equipment as needed.
- b. Maintain existing Mutual Aid agreements with surrounding communities for mutual aid emergency assistance.
- c. Continue to provide necessary training to Fire Department personnel, Police Department personnel, and ambulance crews.
- d. Purchase new firefighting equipment as needed.
- e. Enforce City guidelines for burning.
- f. Purchase new generators to provide emergency power in times of need.
- g. Systematically review and make necessary updates to building code requirements.
- h. Encourage local utility to install surge protectors on major electric lines.
- i. Create a bay in the existing and future public works buildings that can serve as an emergency storage site for emergency vehicles.

## **8. Hazardous Materials Mitigation Activities (Including Methamphetamine Labs)**

- a. Continue to provide necessary training to Fire Department personnel, Police Department personnel, and ambulance crews.
- b. Continue working relationship with Tri-County Drug Task Force.
- c. Provide hazardous materials education for industry and community, including household chemical education.
- d. Maintain existing 28E agreements with surrounding communities for mutual aid assistance.

## **9. Dam Failure Mitigation Activities**

- a. Replace the Power Dam.
- b. Continue to make necessary inspections and repairs to existing dam.

## **10. Drought Mitigation Activities**

- a. Purchase new generators to provide emergency power in times of need.
- b. Enforce City guidelines for burning.

## **11. Extreme Heat Mitigation Activities**

- a. Establish local "Cooling Sites" for at risk populations such as the elderly and/or disabled.

## **12. Terrorism Mitigation Activities (Including All Types of Terrorism)**

- a. Evaluate current terrorism mitigation efforts.
- b. Continue to review and update Incident Command procedures.
- c. Increase measures taken to protect and secure the city water and sewer systems.
  - i. Install video cameras at the well site and wastewater treatment plant

## **13. Disease Mitigation Activities**

- a. Educate the community about dangerous human and animal diseases.

## **14. Earthquake Mitigation Activities**

- a. Systematically review and make necessary updates to building code requirements.
- b. Improve public awareness of proper steps to be taken in the event of an earthquake.

## **15. Bridge Failure Mitigation Activities**

- a. Continue bridge inspection program.
- b. Explore replacement alternatives for bridges in need of replacement.

## **16. Nuclear Event Mitigation Activities**

- a. Determine possible sheltering locations to be used in the event of a nuclear emergency.
- b. Continue to review and update Incident Command procedures.

## **17. Groundwater Contamination Mitigation Activities**

- a. Development of a Storm Water Management Program.
- b. Follow monitoring requirements set forth by the Iowa Department of Natural Resources

## **18. Power Failure Mitigation Efforts**

- a. Purchase new generators to provide emergency power in times of need.
- b. Develop a tree inspection and trimming program.
- c. Encourage local utility to install surge protectors on major electric lines.
- d. Work with local utility to develop a program for the burying of existing lines.

## **19. Explosion Mitigation Activities**

- a. Upgrade radio communications equipment as needed.
- b. Maintain existing Mutual Aid agreements with surrounding communities for mutual aid emergency assistance.
- c. Continue to provide necessary training to Fire Department personnel, Police Department personnel, and ambulance crews.
- d. Purchase new generators to provide emergency power in times of need.
- e. Encourage local utilities to upgrade equipment used to locate and identify underground utility lines.

## **20. Civil Disturbance Mitigation Activities**

- a. Ensure police and other public safety officials have proper training.

## **21. Sinkhole Mitigation Activities**

- a. Educate city personnel and the public regarding sinkholes.

## **22. Emergency Management Mitigation Activities**

- a. Regularly review and amend Fire, Medical, and Hazardous Material response standard operating procedures
- b. Maintain existing Mutual Aid agreements with surrounding communities for mutual aid emergency assistance.
- c. Install Global Positioning Systems in all emergency vehicles.
- d. Purchase new generators to provide emergency power in times of need.
- e. Purchase fire, police, and ambulance equipment as needed.
- f. Continue to provide necessary training to Fire Department personnel, Police Department personnel and ambulance crews.
- g. Review and improve evacuation plans and file with LEPC.
- h. Adopt a recovery ordinance.
- i. Develop a Continuity of Operations Plan.
- j. Update Emergency Response Plan
- k. Review and update Incident Command process as needed.
- l. Develop a list of structures to be used as gathering sites in the event of an emergency situation.

## **Appendix D:**

### **Section Changes to the Plan Update**

Appendix D- Section Changes- Plan Update

100% of the Waverly five year Hazard Mitigation Plan was reviewed and updated by the Hazard Mitigation Taskforce. However, as required by FEMA, the major updates and the process in which the plan was reviewed and analyzed are noted in the table below.

Section	Updates	Comments
Executive Summary	Yes	<ul style="list-style-type: none"> <li>Plan update comments</li> </ul>
The Planning Process	Yes	<ul style="list-style-type: none"> <li>Formation of the taskforce</li> <li>Update activities performed</li> </ul>
Community Profile Information	Yes	<ul style="list-style-type: none"> <li>Updated Census numbers</li> <li>Updated all tables</li> <li>Updated all local information</li> </ul>
Hazard Analysis & Risk Assessment	Yes	<ul style="list-style-type: none"> <li>Added and analyzed four additional hazards: Landslides/Mudflows, Grass &amp; Wildland Fires, Levee Failure, Expansive Soils</li> <li>Updated information in each hazard analysis</li> <li>Modified Fujita Scale to Enhanced Fujita Scale</li> <li>Re-ranked 2003 hazards and ranked newly added hazards</li> <li>Revised the composite scoring table</li> </ul>
Inventory of Assets & Vulnerability Section	Yes	<ul style="list-style-type: none"> <li>Updated table information</li> <li>Completed vulnerability assessments on newly added hazards</li> </ul>
Current Mitigation Activities	Yes	<ul style="list-style-type: none"> <li>Reviewed, added, and corrected current mitigation activities</li> <li>Removed completed projects</li> </ul>
Hazard Mitigation Plan Goals	Yes	<ul style="list-style-type: none"> <li>Reviewed and adjusted existing mitigation goals</li> <li>Added Goals #6 &amp; 7</li> <li>Moved goals to the section before the Future Mitigation Activities Section, in the 2003 plan the goals were listed after.</li> </ul>
Future Mitigation Activities	Yes	<ul style="list-style-type: none"> <li>Reviewed, added and deleted mitigation activities from the 2003 menu of potential strategies.</li> <li>Added mitigation activities which address the four newly added hazards.</li> </ul>
Analysis of Mitigation Activities	Yes	<ul style="list-style-type: none"> <li>Reviewed, added and deleted mitigation activities analysis from the 2003 menu of potential strategies.</li> <li>Analyzed newly established mitigation activities, by determining a timeline and responsible party/ies for implementation, and related goals.</li> </ul>
Funding Alternatives	Yes	<ul style="list-style-type: none"> <li>Established funding sources, level of feasibility, and projected costs for all newly added mitigation activities.</li> <li>Revised projected costs for many mitigation activities which were retained from the previous plan.</li> </ul>

Mitigation Prioritization	Yes	<ul style="list-style-type: none"> <li>The committee did not rank mitigation activities similar to the 2003 plan. Instead the committee decided to provide an outline for formalizing a committee which could review each activity annually to determine feasibility and make recommendation to the city council and city staff.</li> </ul>
Plan Maintenance, Review, & Amendment	Yes	<ul style="list-style-type: none"> <li>Added FEMA developed Mitigation Review Worksheets #1-5.</li> </ul>
Maps	Yes	<ul style="list-style-type: none"> <li>Updated maps accordingly.</li> <li>No additional maps were added and none from the previous plan were deleted.</li> </ul>
Appendices	Yes	<ul style="list-style-type: none"> <li>Added Appendices A- D.</li> <li>Appendix A: Copies of all meeting agenda, meeting notices, invitation letters, press releases, sign in sheets, and meeting minutes.</li> <li>Appendix B: 2003 Hazard Ranking Score Table</li> <li>Appendix C: 2003 Hazard Mitigation Activities</li> <li>Appendix D: Section Changes to the Plan Update</li> </ul>

## Appendix D

As part of the plan update, the table below illustrates the committee's analysis of mitigation activities from both the 2004 and Waverly Hazard Mitigation Plan Update. The committee looked at each 2004 activity and determined those that had been completed; those that had not been implemented, but remained relevant; ongoing activities; and those that were no longer applicable. The committee also completed a similar assessment of the activities that were added to the list of 2004 mitigation strategies during the HMP Update planning sessions. Finally the committee developed comments to justify including each activity in the plan update.

<b><i>Hazard Mitigation Activities</i></b>	<b><i>Plan</i></b>	<b><i>Committee Determination</i></b>	<b><i>Committee Comments</i></b>
<b>Winter Storm Mitigation Activities</b>			
Continue enforcement of snow ordinance.	2004/Update	Ongoing	Continuing Community Need
Purchase new generators to provide emergency power in times of need.	2004/Update	Ongoing	Continuing Community Need
Continue to enforce tree inspection and trimming program.	Update	New/ Will be ongoing	Continuing Community Need
Portable power generation	Update	New	Identified as a result of DR-1763
Power generation for police and fire	Update	New	Identified as a result of DR-1763
Power generation for storm shelters	Update	New	Identified as a Community Need
<b>Thunderstorm/Lightning/Hail Mitigation Activities</b>			
Develop a NOAA Weather Radio awareness program.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Work with local utility to develop a program for the burying of existing lines.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion

Continue to enforce tree inspection and trimming program.	2004/Update	Ongoing	Continuing Community Need
Systematically review, make necessary updates to, and enforce building code requirements.	2004/Update	Ongoing	Continuing Community Need
Continue to install and update surge protectors on major electric lines.	2004/Update	Ongoing	Continuing Community Need
Continue to utilize and develop the Code Red System	Update	New/ Will be ongoing	Identified as a Community Need
Continue to recruit volunteer first responders, market opportunities	Update	New/ Will be ongoing	Identified as a Community Need
<b>Tornado/High Wind Mitigation Activities</b>			
Develop a NOAA Weather Radio awareness program.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Develop a "Tornado Safe Room" awareness program.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Work with local utility to develop a program for the burying of existing lines.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Systematically review, make necessary updates to, and enforce building code requirements.	2004/Update	Ongoing	Ongoing Community Need
Continue to enforce tree inspection and trimming program.	2004/Update	Ongoing	Ongoing Community Need
Expand weather spotter training.	2004/Update	Ongoing	Ongoing Community Need
Improve public awareness of proper steps to be taken in the event of a possible tornado.	2004/Update	Ongoing	Continuing Community Need
Research and secure grant dollars for shelter and safe room construction	Update	New	Identified as a result of DR-1763



Construct additional storm shelters and tornado safe rooms	Update	New	Identified as a result of DR-1763
Retrofit current facilities to include tornado safe rooms	Update	New	Identified as a result of DR-1763
Encourage including tornado safe rooms in newly constructed public facilities	Update	New/ Will be ongoing	Identified as a result of DR-1763
<b>Flood (Riverine &amp; Flash) Mitigation Activities</b>			
Consider replacing the existing power dam with an Inflatable Dam.	2004/Update	Retained, but not yet implemented	Grants awarded, project underway
Replace or Increase Capacity of 3 <sup>rd</sup> Street Bridge.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Consider construction of a levee, floodwall, or other flood protection system in Kohlmann Park.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Construct floodwalls along the east bank of the river across from Kohlmann Park.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Implement projects identified for the Cedar Lane Bike Path.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Continue Participation in the National Flood Insurance Program.	2004/Update	Ongoing	Continuing Community Need
Continue further development of and update of the Storm Water Management Program.	2004/Update	Ongoing	Continuing Community Need
Maintain, enforce, and update Zoning and Floodplain Ordinances as needed.	2004/Update	Ongoing	Continuing Community Need
Ensure proper training and certification of Floodplain Manager(s).	2004/Update	Ongoing	Continuing Community Need
Continue acquisition and removal of homes from the floodplain.	2004/Update	Ongoing	Continuing Community Need

Flood proof of structures in the floodplain.	2004/Update	Ongoing	Continuing Community Need
Monitor and enforce drainage regulations on residential, commercial and industrial developments	Update	New/ Will be ongoing	Identified as a result of DR-1763
Enhance and maintain storm sewer capacity	Update	New/ Will be ongoing	Identified as a result of DR-1763
Create a regional plan to address flooding concerns	Update	New	Identified as a result of DR-1763
*Wetland Areas	Update	New	Identified as a result of DR-1763
*Detention Ponds	Update	New	Identified as a result of DR-1763
Construct a dike and levee system in SE Waverly, near SE 7 <sup>th</sup> Avenue	Update	New	Identified as a result of DR-1763
Consider dredging the river	Update	New	Identified as a result of DR-1763
Complete the Dry Run Creek obstruction and flash flooding analysis and consider other mitigation activities.	Update	New	Identified as a result of DR-1763
*3 <sup>rd</sup> Street Bridge Removal	Update	New	Identified as a result of DR-1763
*Cedar River Trail Bridge Removal	Update	New	Identified as a result of DR-1763
Purchase removable, portable flood barriers	Update	New	Identified as a result of DR-1763
Create a flood mitigation and evacuation brochure	Update	New	Identified as a result of DR-1763
Develop a flood response protocol for response, sand bagging and evacuation procedures	Update	New	Identified as a result of DR-1763
Continue to study additional mitigation alternative for SE Waverly	Update	New	Identified as a result of DR-1763
<b>Transportation Hazard Mitigation Activities</b>			

Continue to provide necessary training to Fire Department personnel, Police Department personnel, and ambulance crews.	2004/Update	Ongoing	Continuing Community Need
Maintain existing agreements with surrounding communities for mutual aid emergency assistance.	2004/Update	Ongoing	Continuing Community Need
Educate local residents about safe driving techniques.	2004/Update	Ongoing	Continuing Community Need
Enforce existing laws	Update	New/ Will be ongoing	Continuing Community Need
Manage traffic control signals	Update	New/ Will be ongoing	Continuing Community Need
Upgrade current traffic signals	Update	New	Identified as a Community Need
*Integrate pedestrian friendly features	Update	New	Identified as a Community Need
*ADA friendly features	Update	New	Identified as a Community Need
*Alternative lighting schemes	Update	New	Identified as a Community Need
Research railway concerns	Update	New	Identified as a Community Need
Study and potentially consider the 10 <sup>th</sup> Street Southeast extension/bridge.	Update	New	Identified as a result of DR-1763
<b>Communications Failure Mitigation Activities</b>			
Work in Conjunction with Bremer County to acquire a shared Mobile Command Center.	2004	Completed	Remains to be an effective mitigation Activity
Install Global Positioning Systems in all emergency vehicles.	2004	Completed	Remains to be an effective mitigation Activity
Upgrade radio communications equipment as needed.	2004/Update	Ongoing	Continuing Community Need
Regularly review and amend Fire, Medical, and Hazardous Material response standard operating procedures.	2004/Update	Ongoing	Continuing Community Need

Purchase new generators to provide emergency power in times of need.	2004/Update	Ongoing	Continuing Community Need
Continue to develop and maintain Crisis Communication Plan	Update	New/ Will be ongoing	Identified as a result of DR-1763
Enhance coordination of disaster plans in the community	Update	New/ Will be ongoing	Identified as a result of DR-1763
<b>Watershed Pollution Mitigation Activities</b>			
Follow monitoring requirements set forth by the Iowa Department of Natural Resources.	2004/Update	Ongoing	Continuing Community Need
Continue further development of and update of the Storm Water Management Program.	2004/Update	Ongoing	Continuing Community Need
Continue Wastewater Facility Storm Water Program.	Update	New/Ongoing	As a result of DR- 1763
<b>Fire Mitigation Activities</b>			
Create a bay at an alternate site that can serve as an emergency storage site for emergency vehicles.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Continue to provide necessary training to Fire Department personnel, Police Department personnel, ambulance crews and hospital staff.	2004/Update	Ongoing	Continuing Community Need
Maintain existing and purchase new firefighting equipment as needed.	2004/Update	Ongoing	Continuing Community Need
Upgrade radio communications equipment as needed.	2004/Update	Ongoing	Continuing Community Need
Maintain existing Mutual Aid agreements with surrounding communities for mutual aid emergency assistance.	2004/Update	Ongoing	Continuing Community Need

Systematically review, make necessary updates to, and enforce building code requirements.	2004/Update	Ongoing	Continuing Community Need
Enforce City guidelines for burning.	2004/Update	Ongoing	Continuing Community Need
Continue to update and install surge protectors on major electric lines.	2004/Update	Ongoing	Continuing Community Need
Purchase new generators to provide emergency power in times of need.	2004/Update	Ongoing	Continuing Community Need
Enhance communication amongst the private sector, public sector, media outlets and citizens.	Update	New/ Will be ongoing	Identified as a Community Need
Create an annual fire inspection program for commercial and industrial properties.	Update	New	Identified as a Community Need
Develop a comprehensive list of alternative routes for different fire scenarios	Update	New	Identified as a Community Need
Develop the 10 <sup>th</sup> Avenue Southeast Extension	Update	New	As a result of DR- 1763
<b>Expansive Soils</b>			
Educate the public on potential hazards	Update	New/ Will be ongoing	Identified as a Community Need
Utilize water sampling as required	Update	New/ Will be ongoing	Identified as a Community Need
Map vulnerable areas	Update	New	Identified as a Community Need
<b>Hazardous Materials Mitigation Activities (Including Methamphetamine Labs)</b>			

Department personnel, Police Department personnel, ambulance crews, first responders, and hospital staff.	2004/Update	Ongoing	Continuing Community Need
Provide hazardous materials education for industry and community, including household chemical education.	2004/Update	Ongoing	Continuing Community Need
Continue working relationship with Tri-County Drug Task Force.	2004/Update	Ongoing	Continuing Community Need
Maintain existing agreements with surrounding communities for mutual aid assistance.	2004/Update	Ongoing	Continuing Community Need
<b>Dam Failure Mitigation Activities</b>			
Consider replacing the Power Dam with Inflatable Dam.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
If retained continue to make necessary inspections and repairs to existing dam.	2004/Update	Ongoing	Continued Community Need
<b>Grass/Wild land Fires</b>			
Educate the public	Update	New/ Will be ongoing	Identified as a Community Need
Information on the proper ditch and open burning, when permitted, who to contact in case of an emergency, how to recognize the presence of explosive gasses, how to contain and manage an approved open fire and/or ditch burning, and how to react in the event of a fire.	Update	New/ Will be ongoing	Identified as a Community Need
Ensure that appropriate organizations are equipped and trained in the event of a grass or wild land fire.	Update	New/ Will be ongoing	Identified as a Community Need

Maintain Mutual Aid Agreements between fire departments in the surrounding region.	Update	New/ Will be ongoing	Identified as a Community Need
*Maintain membership in the Iowa Mutual Aid Compact.	Update	New/ Will be ongoing	Identified as a Community Need
Maintain fire department equipment and personnel training.	Update	New/ Will be ongoing	Identified as a Community Need
Maintain inter-governmental cooperation (i.e. cost sharing, etc.)	Update	New/ Will be ongoing	Identified as a Community Need
Identify alternative water sources whether they be dry hydrants, ponds, etc.	Update	New	Identified as a Community Need
<b>Extreme Heat Mitigation Activities</b>			
Establish local "Cooling Sites" for at risk populations such as the elderly and/or disabled.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
<b>Explosion Mitigation Activities</b>			
Department personnel, Police Department personnel, hospital staff, first responders and ambulance crews.	2004/Update	Ongoing	Continuing Community Need
Maintain existing Mutual Aid agreements with surrounding communities for mutual aid emergency assistance.	2004/Update	Ongoing	Continuing Community Need
Encourage local utilities to upgrade equipment used to locate and identify underground utility lines.	2004/Update	Ongoing	Continuing Community Need
Upgrade radio communications equipment as needed.	2004/Update	Ongoing	Continuing Community Need
Purchase new generators to provide emergency power in times of need.	2004/Update	Ongoing	Continuing Community Need

Terrorism Mitigation Activities (Including All Types of Terrorism)			
Continue to review and update Incident Command procedures and implement training and exercises for the appropriate agencies.	2004/Update	Ongoing	Continuing Community Need
Evaluate current terrorism mitigation efforts.	2004/Update	Ongoing	Continuing Community Need
Increase measures taken to protect and secure the city's critical infrastructure.	2004/Update	Ongoing	Continuing Community Need
Earthquake Mitigation Activities			
Systematically review, make necessary updates to, and enforce building code requirements.	2004/Update	Ongoing	Continuing Community Need
Develop the proper steps to be taken in the event of an earthquake and communicate these procedures to the public.	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Drought Mitigation Activities			
Continue to enforce City/County guidelines for burning.	2004/Update	Ongoing	Continuing Community Need
Purchase new generators to provide emergency power in times of need.	2004/Update	Ongoing	Continuing Community Need
Disease Mitigation Activities			
Educate the community about dangerous human and animal diseases.	2004/Update	Ongoing	Continuing Community Need



Adhere to the Quarantine Plan	Update	New/ Will be ongoing	Identified as a Community Need
Adhere to the current FAD (foreign animal disease) Plan	Update	New/ Will be ongoing	Identified as a Community Need
Implement training and exercises for appropriate agencies and personnel	Update	New/ Will be ongoing	Identified as a Community Need
Evaluate equipment and personnel capacity	Update	New/ Will be ongoing	Identified as a Community Need
<b>Nuclear Event Mitigation Activities</b>			
Continue to review and update Incident Command procedures.	2004/Update	Ongoing	Continuing Community Need
Determine possible sheltering locations to be used in the event of a nuclear emergency	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Monitor the transportation of radioactive chemicals, to the best of city's ability	Update	New/ Will be ongoing	Identified as a Community Need
<b>Riot/Violent Demonstration Mitigation Activities</b>			
Ensure police, other public safety officials and hospital staff has proper training.	2004/Update	Ongoing	Continuing Community Need
Purchase specialized equipment as needed.	Update	New/ Will be ongoing	Identified as a Community Need
<b>Sinkhole Mitigation Activities</b>			
Educate city personnel and the public regarding sinkholes.	2004/Update	Ongoing	Continuing Community Need

<b>Levee Failure</b>			
Educate the public	2004/Update	Ongoing	Continuing Community Need
<b>Bridge Failure Mitigation Activities</b>			
Continue bridge inspection program.	2004/Update	Ongoing	Continuing Community Need
Explore replacement alternatives for bridges	2004/Update	Retained, but not yet implemented	Lack of staff time and funding prohibited completion
Study and potentially consider the 10 <sup>th</sup> Street Southeast extension/bridge.	Update	New	Identified as a Community Need
<b>Land Slides/ Mud Flows</b>			
Educate the public on the dangers of land slides and mud flows.	Update	New/ Will be ongoing	Identified as a Community Need
Discourage the clearing of trees and shrubbery from cliffs and steep sloping hills.	Update	New/ Will be ongoing	Identified as a Community Need
near the top and bottom of steep sloping cliffs and hills. Residential, commercial and infrastructure restrictions.	Update	New	Identified as a Community Need
<b>Emergency Management Activities</b>			
Install Global Positioning Systems in all emergency vehicles.	2004	Complete	Remains to be an effective mitigation Activity