

Activity #2: Explore replacement alternatives for bridges in need of replacement.

Analysis: As the city bridges age and experience floodwaters, they may suffer wear and damage to the extent they become dangerous and unusable. As this occurs the City intends to explore funding options to aid in the replacement of deteriorated bridges.

Timeline: Ongoing

Responsible Party: City Council, City Engineer

Related Hazard Mitigation Goal #: 2 and 3

Activity #3: Study and consider the 10th Avenue extension

Analysis: The need for the 10th Avenue South extension became apparent during the 2008 flooding when all three of the bridges across the Cedar were unusable. If an emergency would have occurred Police and Fire would have had to travel an extended route to get to citizens in need. With this extension a larger bridge will be built with the intention of it being able to be used during a high water event. This additional route will also alleviate traffic significantly in the downtown area.

Timeline: Immediate

Responsible Party: City Engineer

Related Hazard Mitigation Goal #: 2, 3, and 4

Land Slides/ Mud Flows Mitigation**Activity #1: Educate the Public**

Analysis: Although this hazard it is not common to this particular region of the state the possibility still exists. Neglecting this possibility often leads to preventable property damage, injury and loss of life. Informing the public is a benefit to public that comes at minimal or no cost.

Timeline: Ongoing

Responsible Party: City Council, City Staff

Related Hazard Mitigation Goal #: 2, 3, 4, and 5

Activity #2: Zoning and building ordinance

Analysis: Use zoning ordinances to steer people away from areas prone to landslides and/or mud flows.

Timeline: Long-term

Responsible Party: City Zoning Official, City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #3: Discourage tree and shrubbery removal in vulnerable areas

Analysis: The primary challenge to this mitigation activity will be convincing private property owners to not remove trees and shrubbery. Essentially the city has limited control over this activity on private property. This is however a cost-effective strategy that could produce significant positive results. The roots from the trees and shrubbery stabilize and prevent soil erosion.

Timeline: Ongoing

Responsible Party: City Engineer, City Zoning Official

Related Hazard Mitigation Goal #: 2, 3, and 4

Emergency Management Mitigation**Activity #1: Update Emergency Response Plan.**

Analysis: The regular review of the Emergency Response Plan is a necessary step in ensuring that the appropriate measures are in place in the event of a disaster. The Plan should be reviewed to ensure the maximum level of response and emergency responses for each department/participant should be coordinated so as not to interfere or overlap responsibilities between responsible parties, unless that is the intent of the plans.

Timeline: Ongoing

Responsible Party: City Council, Fire Department, Police Department, Ambulance Service, Bremer County Emergency Management

Related Hazard Mitigation Goal #: 2, 3, 4, and 5

Activity #2: Review and update Incident Command process as needed.

Analysis: Standard review of the Incident Command process would ensure the city emergency response units were prepared for any emergency and/or hazard events that may occur.

Timeline: Ongoing

Responsible Party: Fire Department, Police Department, Ambulance Service, Waverly Hospital, City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #3: Develop a Continuity of Operations plan.

Analysis: Development and adoption of a Continuity of Operations Plan would aid the emergency services personnel and the community in their response to emergency and hazard events.

Timeline: Immediate

Responsible Party: Fire Department, Police Department, Ambulance Service, Public Works Department, Waverly Hospital, City Council

Related Hazard Mitigation Goal #: 2, 3, 4, and 5

Activity #4: Continue to provide necessary training to Fire Department personnel, Police Department personnel and ambulance crews.

Analysis: In the past the City has been active in providing necessary training to its emergency service personnel. This training helps to ensure that emergency personnel are prepared to respond to hazard events and are trained in the most current emergency response techniques. The City plans to offer this training on an annual basis in the future.

Timeline: Ongoing

Responsible Party: Fire Department, Police Department, Ambulance Service, City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #5: Maintain existing and purchase new fire, police, and ambulance equipment as needed.

Analysis: The City recognizes the importance of providing necessary equipment and training thereon to its emergency response departments. Provision of updated and necessary equipment helps to ensure that emergency personnel are prepared to respond to hazard events and are equipped with the most current emergency response equipment.

Timeline: Ongoing

Responsible Party: Fire Department, Police Department, Ambulance Service, City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #6: Regularly review and amend Fire, Medical, and Hazardous Material response standard operating procedures.

Analysis: Regular review of the standard operations regarding disaster response is a necessary step in ensuring that the appropriate measures are taken in time of disaster. Plans should be reviewed to ensure the maximum level of response and the plans should be coordinated so as not to interfere or overlap responsibilities between responsible parties, unless that is the intent of the plans.

Timeline: Ongoing

Responsible Party: Police Department, Fire Department, Ambulance Department, Bremer County Emergency Management, Waterloo Hazmat

Related Hazard Mitigation Goal #: 2, 3, 4, and 5

Activity #7: Maintain existing Mutual Aid Agreements with surrounding communities for mutual aid fire assistance.

Analysis: The City of Waverly currently holds several agreements with surrounding communities to provide and be provided mutual assistance in times of disaster. The communities within Bremer County have been and should continue to cooperate to ensure mutual assistance to one another.

Timeline: Ongoing

Responsible Party: City Council, County Fire Association, County Police Association, Ambulance Department

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #8: Develop a list of structures/sites to be used as gathering sites in the event of an emergency situation.

Analysis: In the event of a catastrophic event, the city would need to have a list of gathering sites for residents. Development and distribution of this would serve to improve community and emergency response in the event of such a situation.

Timeline: Immediate

Responsible Party: City Council, Police Department

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #9: Review and improve evacuation plans and file with LEPC.

Analysis: Periodically the City administration and departments should review and update their evacuation planning documents. Improvements or adjustments should then be filed with the County Emergency Management Coordinator and County LEPC.

Timeline: Ongoing

Responsible Party: Fire Department, Police Department, Ambulance Service, Public Works Department, Waverly Hospital, City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

Activity #10: Install Automatic Vehicle Locators (AVL) in all emergency vehicles

Analysis: The installation of AVL (**Automatic Vehicle Locator**) units would speed response routes and allow for easy monitoring of the location of said emergency vehicles. This activity is especially attractive when the city fire department or medical units must travel to rural areas that may not be familiar to the driver of the unit.

Timeline: Long-term

Responsible Party: Fire Department, Police Department, City Council, E911 Board

Related Hazard Mitigation Goal #: 4

Activity #11: Purchase new generators to provide emergency power in times of need.

Analysis: Currently, the city maintains generators as an emergency backup at the fire department and law center. In addition, the public works department has one portable generator for use in emergency situations. Purchasing additional generators would help to ensure continued communications during and after a disaster.

Timeline: Long-term

Responsible Party: City Council

Related Hazard Mitigation Goal #: 2, 3, and 4

FUNDING OF ALTERNATIVES

In an attempt to fully analyze the future mitigation activities identified, the following tables seek to estimate the costs associated with each mitigation activity. Some of the costs were easily available, such as activities that called for the continuation of an ongoing activity. Other cost estimates were available from previous planning documents or project plans currently on file with the city. In addition, some costs estimates were based on the local knowledge of the activity in question.

Finally, the costs estimates are intended to encompass all of the costs associated with the activity for the five-year time frame of this plan.

Other factors or information necessary for further consideration of the future mitigation activities:

Estimated Cost = Estimated cost to construct or purchase.

Federal Funds = Federal Funds identified as possible source of funds.

State funds = State funds identified as possible source of funds.

Local Funds = Funds from local budget that are or would be budgeted for proposed project.

Feasibility = A rating on feasibility of project moving forward within this planning period.

- Good = Funding sources available, significant mitigation impact, capacity to implement the project
- Fair = Partial funding sources available, some mitigation impact, some barriers to implementing the project.
- Poor = Very little to no funding sources available, dismal mitigation impact, many barriers to implementing the project.

Cost Effectiveness = Estimated cost of completing the project versus estimated costs of not completing the project.

Alternative	Estimated Cost (\$)	Funding Sources			Feasibility Good, Fair, or Poor	Comments
		Federal Funds (\$)	State Funds (\$)	Local Funds (\$)		
Winter Storm Mitigation Activities						
1.Continue to enforce tree inspection / trimming program	\$40,000	\$	\$	\$40,000	Good	Program currently in operation and will continue.
2.Continue enforcement of snow ordinance	\$5,000	\$	\$	\$5,000	Good	Includes staff time involved.
3.Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000	Fair	*Costs would be incurred by Waverly Light & Power.
Thunderstorm/Lightning /Hail Mitigation Activities						
1.Continue to update & install surge protectors	NA	\$	\$	NA	Good	Costs would be incurred by Waverly Light & Power.
2.Work with utility to develop a program to bury existing lines	NA	\$	\$	NA	Good	Costs would be incurred by Waverly Light & Power.
3.Continue to enforce tree inspection / trimming program	\$40,000	\$	\$	\$40,000	Good	Program currently in operation and will continue.
4.Review/update/enforce building code requirements	\$50,000	\$	\$	\$50,000	Good	Cost reflects staff time for implementation, review, and counsel.
5.Develop NOAA Weather Radio Awareness Program	\$1,000	\$	\$	\$1,000	Good	Cost reflects cost of publication and dispersal.
6. Continue to utilize Code Red System	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time and

						maintenance costs.
7. Continue to recruit volunteer 1 st Responders	\$1,000	\$	\$	\$1,000	Good	Cost reflects cost of marketing and training.
8. Create a crisis communication task force w/ protocol	\$5,000	\$	\$	\$5,000	Good	Costs reflect staff and planning time.
Tornado/High Wind Mitigation Activities						
1.Improve Awareness of Proper Steps to be taken during a Tornado Event	\$1,000	\$	\$	\$1,000	Good	Cost reflects cost of publication and dispersal.
2.Develop a "Tornado Safe Room" Awareness Program	\$1,000	\$	\$	\$1,000	Good	Cost reflects cost of publication and dispersal.
3.Work with utility to develop a program to bury existing lines	NA	\$	\$	NA	Good	Costs would be incurred by Waverly Light & Power.
4.Review/update/enforce building code requirements	\$50,000	\$	\$	\$50,000	Good	Cost reflects staff time for implementation, review, and counsel.
5.Continue to enforce tree inspection / trimming program	\$40,000	\$	\$	\$40,000	Good	Program currently in operation and will continue.
6.Expand weather spotter training program	NA	\$	\$	NA	Good	Cost incurred by the County Emergency Management Office
7.Develop NOAA Weather Radio Awareness Program	\$1,000			\$1,000	Good	Cost reflects cost of publication and dispersal.
8. Research grant dollars for shelters/safe rooms	\$2,000	\$	\$	\$2,000	Good	Costs reflect staff time dedicated to research.
9. Construct Shelters/Safe rooms	\$200,000-\$750,000	75% of total funding	10% of total funding	15% of total funding	Good	Costs reflects engineering, planning and construction
10. Retrofit current facilities to include safe rooms	\$400,000-\$1,500,000	75% of total funding	10% of total funding	15% of total funding	Good	Costs reflects engineering, planning and construction
11. Enhance Building Code to include safe rooms in newly constructed pub. facility	\$2,000			\$2,000	Good	Costs reflects engineering, planning and construction
Flood (Riverine & Flash) Mitigation Activities						
1.Replace existing power dam	\$4,200,000	\$3,000,000	\$1,200,000	\$	Good	Total estimated project cost. Project currently in doubt due to low cost/ benefit ratio
2.Continue NFIP Participation	\$625	\$	\$	\$625	Good	\$125 annual training expenditure.
3.Continue to develop & update Storm Water Management Program	\$275,000	\$	\$	\$275,000	Poor	May be soon required by law
4.Maintain, Enforce, and Update Zoning &	\$75,000	\$	\$	\$75,000	Good	Cost reflects staff time for review and

Floodplain Ordinance						counsel.
5.Ensure Proper Training of Flood Plain Managers	\$0*	\$	\$	\$0*	Good	*Cost accounted for in NFIP Membership Section
6. Continue acquisition and removal of homes from floodplain	\$	Will likely require a combination of funding resources from all three levels of government of which the majority will need to be acquired from federal funding sources.	Good	Cost and continuation of program will depend on access to funding.		
7.Flood Proof structures in the Floodplain	NA	\$	\$	NA	Fair	Many alternatives available depending on situation.
8.Replace or increase capacity of 3 rd Street Bridge	\$2,000,000	\$	\$	\$2,000,000	Fair	Total estimated project cost
9.Construct levee or floodwall in Kohlmann Park	\$742,000	\$	\$	\$742,000	Poor	Aesthetics aside, seems to be very attractive option.
10.Construct floodwalls along the left bank across from Kohlmann Park	\$438,750	\$	\$	\$438,750	Poor	Cost/benefit ratio not as attractive as previous option.
11.Implement projects identified for the Cedar Lane Bike Path	\$675,981	\$	\$	\$675,981	Fair	Must satisfy DNR Regulations
12. Construct Dike and Levee System near SE 7 th Avenue	\$2,000,000-\$6,000,000	\$	\$	\$2,000,000-\$6,000,000	Poor	City will likely need to bond for the project over time, this will be a gradual project over the next several years
13. Enhance and maintain storm sewer	\$2,000,000-\$6,000,000	\$	\$	\$2,000,000-\$6,000,000	Poor	City will likely need to bond for the project over time, this will be a gradual project over the next several years
14. Create Regional Plan to address flooding concerns	Unknown	\$	\$	Unknown	Poor	Cost reflect staff and planning time
15. Monitor and enforce drainage regulations in developments	\$5,000	\$	\$	\$5,000	Good	Cost reflect staff time
16. Dredge the river	\$6,000,000	\$4,500,000	\$	\$1,500,000	Fair	Costs reflect cost of the project, does not include cost of maintenance
17. Dry Run Creek	\$4,000,000 for	\$	\$	\$4,000,000	Fair	Costs of consultants

Obstruction Analysis	implementation			for implementation		services paid for future costs will be cost of implementing activities
18. Purchase removable, rubber flood barriers	\$1,000,000-\$2,000,000	\$	\$	\$1,000,000-\$2,000,000	Good	Costs reflect purchase price of the flood barriers
Transportation Hazard Mitigation Activities						
1.Continue to provide necessary training to FD, PD, & Ambulance crews	\$45,000	\$	\$	\$45,000	Good	Ongoing training provided on an annual basis.
2.Maintian existing Mutual Aid Agreements	\$6,250	\$	\$	\$6,250		Cost reflects staff review, legal counsel, recording fees and joint purchases.
3.Educate local residents about safe driving	\$10,000	\$	\$	\$10,000		Costs reflect staff time devoted to community education.
4. Enforce Existing Laws	\$1,000	\$	\$	\$1,000	Good	Reflects any additional costs of staff time that may be above and beyond normal operations
5. Manage lights for emergencies	\$1,000,000-\$1,500,000	\$	\$	\$1,000,000-\$1,500,000	Poor	Reflects cost on upgrading current lighting system
6. Upgrade traffic lights	\$50,000 per light	\$	\$	\$50,000 per light	Poor	Reflects direct cost of a new unit
7. Bremer Avenue Traffic Analysis	\$50,000-\$100,000	\$	\$	\$50,000-\$100,000	Fair	Reflect cost of consultant
8. Research railway concerns	\$10,000-\$50,000	\$	\$	\$10,000-\$50,000	Fair	Reflect cost of consultant or staff time
Communications Failure Mitigation Activities						
1.Upgrade radio communications equipment as needed	NA	\$	\$	NA	Good	Financial responsibility of the E911 Board
2.Regular Review and Update of Fire, Medical, and HAZMAT SOPs	\$20,000	\$	\$	\$20,000	Poor	Cost reflects staff time for review and counsel.
3.Install GPS in all emergency vehicles	\$200 per unit	\$	\$	\$200 per unit	Good	Very affordable activity with great benefits
4.Work with County to acquire a Shared Mobile Command Center	\$5,000	\$	\$	\$5,000	Good	Most of the cost will be incurred by the County.
5.Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000*	Poor	*Costs would be incurred by Waverly Light & Power.
6. Continue to develop and maintain Crisis Communication Plan	\$10,000	\$	\$	\$10,000	Good	Costs reflects staff and planning time
7. Enhance coordination of disaster plans in the community	\$5,000	\$	\$	\$5,000	Good	Cost Reflects staff and planning time

Watershed Pollution Mitigation Activities						
1. Follow monitoring requirements set forth by the IDNR	\$60,000	\$	\$	\$60,000	Good	Program currently active and up to date
2. Continue to develop & update Storm Water Management Program	\$275,000	\$	\$	\$275,000	Poor	May be soon required by law
3. Continue Wastewater Facility Storm Water Program.	\$1,200	\$	\$	\$1,200	Good	Program currently active and up to date
Fire Mitigation Activities						
1. Continue to provide necessary training to FD, PD, & Ambulance crews	\$53,500	\$	\$	\$53,500	Good	Ongoing training provided on an annual basis.
2. Maintain existing / purchase new firefighting equipment as needed	\$186,000	\$	\$	\$186,000	Good	Equipment maintenance & purchase is included in the annual budget.
3. Upgrade radio communications equipment as needed	\$25,000	\$	\$	\$25,000	Good	Financial responsibility of the E911 Board
4. Maintain existing Mutual Aid Agreements	\$6,250	\$	\$	\$6,250	Good	Cost reflects staff review, legal counsel, recording fees and joint purchases.
5. Review/update/enforce building code requirements	\$250,000	\$	\$	\$250,000	Good	Cost reflects staff time for implementation, review and counsel.
6. Enforce City guidelines for burning	\$5,000	\$	\$	\$5,000	Good	Includes staff time involved.
7. Create annual fire inspection program	\$5,000	\$	\$	\$5,000	Fair	Includes staff time to develop the program.
8. Create alternate site for storage of emergency vehicles	\$250,000 - \$500,000	\$	\$	\$250,000 - \$500,000	Fair	Currently many unofficial sites are available.
9. Continue to update & install surge protectors	NA	\$	\$	NA	Good	Costs would be incurred by Waverly Light & Power
10. Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000*	Poor	*Costs would be incurred by Waverly Light & Power
11. Create and Participate in an annual fire inspection program	\$5,000	\$	\$	\$5,000	Fair	Costs include an additional staff time used beyond normal operations
12. Develop a comprehensive list of alternative routes	\$1,000	\$	\$	\$1,000	Good	Costs would include staff time and marketing efforts
13. Enhance communication amounts all sectors and the media	\$1,000	\$	\$	\$1,000	Good	Costs would include staff time and marketing efforts
14. 10 th Avenue East Extension	\$8,000,000	\$6,000,000	\$	\$2,000,000	Fair	Federal funds would be part of 2009 Stimulus bill
Expansive Soils Activities						
1. Educate the Public	\$1,000	\$	\$	\$1,000	Good	Costs reflect staff time

2. Utilize water sampling	\$50,000	\$	\$	\$50,000	Fair	Cost of a soil sampling survey
3. Map Vulnerable Areas	\$1,000	\$	\$	\$1,000	Good	Costs of staff time required to do mapping or consultant time
Hazardous Materials Mitigation Activities						
1.Continue to provide necessary training to FD, PD, & Ambulance crews	\$45,000	\$	\$	\$45,000	Good	Ongoing training provided on an annual basis.
2.Provide hazardous materials education	\$7,500	\$	\$	\$7,500	Good	Part of city-wide ongoing education process.
3.Continue working relationship with Tri-County Drug Task Force	NA	\$	\$	NA	Good	No direct cost incurred by the City.
4.Maintian existing 28E Agreements	\$6,250	\$	\$	\$6,250	Good	Cost reflects staff review, legal counsel, recording fees and joint purchases.
Dam Failure Mitigation Activities						
1.Continue to make necessary inspections/repairs to existing dam	NA	\$	\$	NA	Good	Costs would be incurred by Waverly Light & Power.
2.Replace the power dam	\$4,200,000	\$3,000,000	\$1,200,000	\$	Good	Total estimated project cost. Another very attractive option that may salvage view from park.
Grass or Wild land Fires Activities						
1. Educate the Public	\$1,000	\$	\$	\$1,000	Good	Costs of staff time and marketing efforts
2. Identify Alternative Water Sources	\$1,000	\$	\$	\$1,000	Fair	Costs of staff time
3. Ensure appropriate organizations are equipped and trained	\$100,000 - \$200,000 annually	\$	\$	\$100,000 - \$200,000 annually	Fair	Costs typically budgeted for annually
4. Maintain Mutual Aid Agreements	\$1,100	\$	\$	\$1,100	Good	Costs of staff time
5. Maintain Fire equipment and trained personnel	\$100,000 - \$200,000 annually	\$	\$	\$100,000 - \$200,000 annually		Costs typically budgeted for annually
Extreme Heat Mitigation Activities						
1.Establish local "Cooling Sites" for at risk populations	\$1,000	\$	\$	\$1,000	Fair	Costs reflect staff time spent to compile list and costs to advertise sites.
Explosion Mitigation Activities						
1.Continue to provide necessary training to FD,	\$45,000	\$	\$	\$45,000	Good	Ongoing training provided on an

PD, & Ambulance crews						annual basis.
2. Maintain existing Mutual Aid Agreements	\$6,250	\$	\$	\$6,250	Good	Cost reflects staff review, legal counsel, recording fees and joint purchases.
3. Encourage local utility to upgrade equipment used to locate underground lines	NA	\$	\$	NA	Fair	Costs would be incurred by Waverly Light & Power.
4. Upgrade radio communications equipment as needed	N/A	\$	\$	NA	Good	Financial responsibility of the E911 Board
5. Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000*	Poor	*Costs would be incurred by Waverly Light & Power.
Terrorism Mitigation Activities						
1. Continue to review/update Incident Command procedures	\$35,000	\$	\$	\$35,000	Fair	Cost reflects staff time for review and counsel.
2. Evaluate current terrorism mitigation efforts	\$5,000	\$	\$	\$5,000	Good	Cost reflects staff time for review and counsel.
3. Increase measures taken to protect/secure the City water/sewer systems	Unknown	\$	\$	Unknown	Fair	Will include time and funds from the IDNR.
Earthquake Mitigation Activities						
1. Review/update/enforce building code requirements	\$5,000	\$	\$	\$5,000	Good	Cost reflects staff time for, implementation, review and counsel.
2. Improve public awareness of steps to take in the event of an earthquake	\$1,000	\$	\$	\$1,000	Poor	Likelihood of occurrence reduces cost/benefit ratio.
Drought Mitigation Activities						
1. Enforce City guidelines for burning	\$5,000	\$	\$	\$5,000	Good	Includes staff time involved.
2. Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000*	Poor	*Costs would be incurred by Waverly Light & Power.
Disease Mitigation Activities						
1. Educate the community about dangerous human and animal diseases	\$1,000	\$	\$	\$1,000	Good	Most education performed by the Visiting Nurses Association and County Public Health Office.
2. Create a Quarantine Plan	\$10,000	\$	\$	\$10,000	Fair	Costs of staff and planning time
3. Maintain Current FAD Plan	\$1,000	\$	\$	\$1,000	Good	Costs of staff time
4. Implement training and exercises	\$10,000	\$	\$	\$10,000	Good	Costs of staff time and training costs

5. Evaluate equipment and personnel capacity	\$1,000	\$	\$	\$1,000	Good	Costs of staff time
Nuclear Event Mitigation Activities						
1.Continue to review/update Incident Command procedures	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time for review and counsel.
2.Determine possible sheltering locations	NA	\$	\$	NA	Good	Included in the County Multi-Hazard Plan
3. Monitor the transportation of radioactive chemicals	\$5,000	\$	\$	\$5,000	Fair	Costs above and beyond the normal operations of the Police Department
Civil Disturbance Mitigation Activities						
1.Ensure police & other public safety officials have proper training	\$45,000	\$	\$	\$45,000	Good	Ongoing training provided on an annual basis.
Sinkhole Mitigation Activities						
1.Educate City personnel & the public regarding sinkholes	\$2,500	\$	\$	\$2,500	Good	Ongoing training provided on an annual basis.
Levee Failure Activities						
Bridge Failure Activities						
1. Continue bridge inspection program	\$25,000	\$	\$	\$25,000	Good	Currently Inspected every three years
2. Explore replacement alternatives for bridges in need	\$5,000,000-\$10,000,000	\$	\$	\$5,000,000-\$10,000,000	Fair	Could be part of 10 th avenue south extension, 2009 stimulus bill
Land Slides/ Mud Flows Activities						
1. Educate the public	\$1,000	\$	\$	\$1,000	Good	Costs reflects staff time and marketing efforts
2. Create Zoning Ordinance	\$5,000	\$	\$	\$5,000	Fair	Costs reflects staff time and consultant fees for drafting the ordinance
3. Discourage the clearing of trees and shrubbery from cliffs and steep sloping areas	\$1,000	\$	\$	\$1,000	Good	Costs reflects staff time and marketing efforts
Emergency Management						
1.Update Emergency Response Plan	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time for review and counsel.
2.Review/Update Incident Command Process	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time for review and counsel.
3.Develop a Continuity of Operations Plan	\$5,000	\$	\$	\$5,000	Good	Cost reflects staff time for review and counsel.
4.Continue to provide necessary training to FD, PD, & Ambulance crews	\$45,000	\$	\$	\$45,000	Good	Ongoing training provided on an annual basis.

5.Maintain existing & purchase new equipment as needed	Ongoing	\$	\$	Ongoing	Good	Equipment maintenance & purchase is included in the annual budget.
6.Regular Review and Update of Fire, Medical, and HAZMAT SOPs	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time for review and counsel.
7.Maintian existing Mutual Aid Agreements	\$6,250	\$	\$	\$6,250	Good	Cost reflects staff review, legal counsel, recording fees and joint purchases.
8.Develop a list of structures to be used as gathering sites	NA	\$	\$	NA	Good	Included in the County Multi-hazard Plan
9.Review/improve evacuation plans and file with the LEPC	\$10,000	\$	\$	\$10,000	Good	Cost reflects staff time for review and counsel.
10.Install GPS Units in Emergency Vehicles	\$200 per unit			\$200 per unit	Good	Likely will cooperate with all emergency services.
11.Purchase new generators to provide emergency power	\$100,000	\$	\$	\$100,000	Poor	*Costs would be incurred by Waverly Light & Power.

MITIGATION PRIORITIZATION

As shown above, there are a number of hazards that could potentially affect the residents of Waverly. In relation, there are also a large number of activities that could be undertaken to mitigate the effects of these hazards. Unfortunately, the City of Waverly does not have an unlimited amount of funds or staff for mitigation projects. In the previous update of the City's Hazard Mitigation plan the planning committee made a decision to prioritize the selected menu of mitigation activities for each hazard. In addition, the previous committee made an attempt to determine the most mitigation needs by identifying the nine most immediate mitigation activities needed to be undertaken by the city to protect it using the scoring system in the hazard evaluation portion of the plan..

The committee appointed to complete the 2008 five-year hazard mitigation update elected to not prioritize mitigation activities or particular hazards beyond scoring the hazards. Additional analysis of the mitigation activities was however completed by city staff and INRCOG which grouped the mitigation activities into general feasibility categories, including funding availability, level of mitigation impact, and an assessment of the City's capacity to implement projects. The committee made up of citizens varying in profession expressed that the knowledge and expertise specific to hazards and mitigation activities was not sufficient within the group. The committee felt hazards and mitigation activities would be better analyzed by city staff, elected officials and consultants. The task force did however express interest in regard to remaining part of the long term hazard mitigation planning process. Formalizing a hazard mitigation committee was discussed as a method for holding city staff and elected officials accountable for implementing the most effective, efficient, and feasible mitigation activities. The primary priority for the City of Waverly in this plan is to address concerns on a continual basis. In the following section there is an outline in which the City can utilize if it decides to consider formalizing a Hazard Mitigation Planning Committee.

Formalizing the Hazard Mitigation Committee would likely consider adopting an ordinance designed to establish the committee. Upon creation, it is recommended that the committee draft By Laws or Rules of Procedure. A checklist of items that may be addressed in the By Laws is provided below.

- ✓ **OFFICERS** - How many offices with the body have?
 - ✓ Selection. - How will officers be chosen?
 - ✓ Tenure. - What are the officers' terms?
 - ✓ Duties. - What duties do the officers have?
- ✓ **MEETINGS** - When and where will the meetings be held?
 - ✓ Special meetings. - Will the body be allowed to hold special meetings?
 - ✓ Public. All regular and special meetings, subcommittee meetings; hearings; records and accounts shall be open to the public. The agenda shall be posted, per the Code of Iowa.
 - ✓ Quorum. - What is a quorum and how is it accomplished?
 - ✓ Agenda. - The order of business may be as follows:
 - ✓ Call to Order
 - ✓ Roll Call of Members in Attendance.
 - ✓ Consideration of the Agenda
 - ✓ Consideration of the Minutes from the previous meeting(s).
 - ✓ Old Business.
 - ✓ New Business. - Comments from the Public and general discussion.
 - ✓ Adjournment.
 - ✓ Motions - How is a motion made?
 - ✓ Voting - What is the process?
 - ✓ Committee action - What actions can the committee take (i.e. recommend)?
 - ✓ Parliamentary procedure. "Roberts Rules of Order, Revised".
- ✓ **HEARINGS** - Will the committee hold public hearings? If yes, define the procedures for the

hearings.

✓ EXPENSES

✓ Reimbursement - training related mileage, meals, etc.

✓ Gifts. Committee members may not receive any type of gift for their personal use or enjoyment.

✓ MEETING ATTENDANCE - Commission members are expected to attend all regular and special meetings of the Commission.

✓ Removal of members committee

✓ MATTERS TO BE CONSIDERED BY THE COMMITTEE

✓ SUB-COMMITTEES -The Committee may create, by motion, standing and special committees for certain purposes as determined by the Committee.

✓ Appointment and tenure of sub-committees.

✓ Spokesperson position created.

✓ MUNICIPAL STAFF - Municipal staff may be appointed to represent and assist the committee.

✓ RECORDS - All records shall be kept as public records.

✓ INFORMAL ADVICE - The Committee should not consider any requests for informal advice.

✓ ADOPTION AND AMENDMENT - A two-thirds vote of the Committee would generally be required to adopt and/or amend the By Laws.

PLAN MAINTENANCE, REVIEW, & AMENDMENT

Plan Adoption and Amendment

This is a five-year plan, commencing upon FEMA Certification, and any future amendments to the plan shall occur only after an official Public Notice has been posted in a local publication announcing a Public Hearing on the matter. After the public has had the opportunity to review the proposed amendments the City Council may, by resolution, choose to accept any amendment to the plan. Any and all amendments made to this plan should be shared with the Bremer County Emergency Management Agency and the Iowa Department of Homeland Security and Emergency Management Division.

Phasing

Phasing is a process by which the completion of a project occurs over several budget cycles. It is recommended that this review be incorporated into the City's annual Capital Improvements Program update procedure. For projects that require a local match commitment, the Council should begin setting aside appropriate resources to meet their match liability.

Continued Public Participation

In order to ensure that the public remains involved in the future implementation of this plan a file shall remain on hand at City Hall. This plan shall be made available to any party who requests to see it. If the City intends to make amendments to the plan, a posted public notice should be made available so that the public can be made aware. Furthermore, if a Hazard Mitigation Committee is eventually formalized, each amendment, recommendation or action could go in front of the committee for review and/or approval. Public notice should also be posted for any meetings that deal with the amendment of this plan. Said meetings are to remain open to the public.

Evaluation And Review Process

The Planning Committee whether formal or informal will be comprised of representatives from all City Departments, members of the public, and elected officials. This committee will be tasked with reviewing and evaluating progress on the Mitigation Plan. The Planning committee will invite a cross section of the community to participate in any future meetings regarding the update or amendment of the Plan. Public notice will be posted at City Hall inviting the general public in an attempt to gather additional comments. Copies of the Plan and the Committee's review will be available at City Hall. Following the Planning Committee's completion of the review process, the findings of the annual review and recommended changes, if applicable, will be presented during the City Council meeting. A public meeting will be held at that time.

Program evaluation worksheets

Worksheet # 1: Progress Report

Progress Report Period: _____ (Date) to _____ (Date)

Project Title: _____ Project ID#: _____

Responsible Agency: _____

Address: _____

City/County: _____

Contact Person: _____ Title: _____

Phone #(s): _____ e-mail address: _____

List Supporting Agencies and Contacts: _____

Total Project Cost: \$ _____ Anticipated Cost Overrun/Under run: _____

Date of Project Approval: _____ Start date of the project: _____

Anticipated completion date: _____

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

Milestones	Complete	Projected Date of Completion

Plan Goal(s)/Objective(s) Addressed:

Goal: _____

Objective: _____

Indicator of Success (e.g., losses avoided as a result of the acquisition program):

In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.

Status (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 – to complete a project evaluation):

Project Status

(1) Project on schedule

(2) Project completed

(3) Project delayed*
*explain: _____

(4) Project canceled

Project Cost Status

(1) Cost unchanged

(2) Cost overrun*
*explain: _____

(3) Cost under run*
*explain: _____

Summary of progress on project for this report:

- A. What was accomplished during this reporting period?

- B. What obstacles, problems, or delays did you encounter, if any?

- C. How was each problem resolved?

Next Steps: What is/are the next step(s) to be accomplished over the next reporting period?

Other comments:

Worksheet #2: Evaluating Your Planning Team

When gearing up for the plan evaluation, the planning team should reassess its composition and ask the following questions:

	YES	NO
Have there been local staffing changes that would warrant inviting different members to the planning team? Comments/Proposed Action:		
Are there organizations that have been invaluable to the planning process or to project implementation that should be represented on the planning team? Comments/Proposed Action:		
Are there any representatives of essential organizations who have not fully participated in the planning and implementation of actions? If so, can someone else from this organization commit to the planning team? Comments/Proposed Action:		
Are there procedures (e.g., signing of MOAs, commenting on submitted progress reports, distributing meeting minutes, etc.) that can be done more efficiently? Comments/Proposed Action:		
Are there ways to gain more diverse and widespread cooperation? Comments/Proposed Action:		
Are there different or additional resources (financial, technical, and human) that are now available for mitigation planning? Comments/Proposed Action:		

If the planning team determines the answer to any of these questions is "yes," some changes may be necessary.

Worksheet #3: Evaluate Your Project Results

<p>Project Name and Number:</p> <p>Project Budget:</p> <p>Project Description:</p> <p>Associated Goal and Objective (s):</p> <p>Indicator of Success (e.g., losses avoided):</p>	<p><i>Insert location map</i></p> <p><i>include before and after photos if appropriate</i></p>
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