

Multi-Hazard Mitigation Plan

City of
Urbandale



Polk County Emergency Management Agency
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Des Moines, Iowa 50309
March 2001

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Executive Summary

To summarize, this document contains:

- The City of Urbandale Hazard Analysis results;
- Hazard Mitigation strategies, goals, and results;
- Proposed alternatives by the Hazard Mitigation Steering Committee to reduce short and long term vulnerability to the identified hazards;
- Methods of implementing, monitoring, evaluating, and updating the mitigation plan;
- The establishment of a Hazard Mitigation Steering Committee to assist in the further development, prioritization of and implementation of the Hazard Mitigation alternatives
- This document also provides a framework for identification of coordination of Hazard Mitigation strategies developed in Polk County and the State of Iowa and with other plans; especially those developed by State and Federal agencies and those plans developed in order to file for Federal disaster assistance, as required by Section 409 of the Robert T. Stafford Relief and Emergency Assistance Act.

Introduction

Definition of Hazard Mitigation

Hazard Mitigation is any action taken in advance to eliminate or reduce the long-term risk to human life, property, and the environment posed by natural, technical, and civil emergencies.

Concept and Purpose of Mitigation Planning

Mitigation planning combines technical analysis and community participation to enable the community to choose wisely between alternative strategies for managing change, and thereby to achieve long-term community sustainability. Making a plan serves several purposes, some obvious and some not so obvious.

- Planning process gives Urbandale the opportunity to consider community issues in a systematic and comprehensive manner. This requires much input of information such as data on hazards, their geographic variation, and the degree of threat they pose.
- The process demonstrates the connection, the rational nexus, between public interests and proposed policies or programs necessary for both political and legal defensibility.
- In the course of generating the information necessary to making decisions, the planning process educates the community, particularly those with a stake in the outcome of the process, about hazards and what can be done about them.
- After acquiring and assimilating information and debating the issues, the planning process allows participants to reach consensus on goals and alternatives, to resolve conflicts over priorities and methods, and to build commitment to elements of the plan.
- Long-range and comprehensive plan coordinates the multiple issues, goals, and policies of the community. Hazard mitigation goals are integrated with other community goals. Social, human, financial, physical, and environmental capitals are maintained and enhanced.
- The plan documents Urbandale's goals, policies, and programs and communicates them to citizens and interested stakeholders, from developers and property owners to elected officials. The plan alerts everyone to the community's commitment.
- The plan is a means of implementing policy. It is a reference for elected and appointed officials to use in reaching decisions when considering ordinances, allocating money for capital improvements, or granting permits for new developments.
- Finally, the plan and the planning process identifies cost-effective projects that could be implemented when funding opportunities become available in the form of post-disaster assistance or other grants.

The purpose of this plan is to integrate hazard mitigation strategies into the activities and programs of the Federal, State, County, and City governments and neighborhoods and to the extent practical, into the activities of private sector organizations.

The plan identifies and evaluates specific hazard mitigation alternatives to be considered by the City of Urbandale and its agencies and departments. The strategies presented are deemed appropriate and effective by the City of Urbandale Hazard Mitigation Steering Committee. Upon acceptance by the Council, the selected alternatives may be further developed for funding and implementation by the lead departments. It is understood that the mitigation strategies adopted in this plan are alternatives only, and they must be approved and funded to be implemented as official hazard mitigation strategies to be implemented by the City of Urbandale and cooperating

political jurisdictions. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

The plan is based upon the City of Urbandale Hazard Analysis that considers the natural, technological, and human caused risks to which the City and its citizens are vulnerable. The plan describes strategies that the departments and the private sector may utilize as their capabilities to mitigate those hazards.

Planning Process

Steering Committee Representatives

The Polk County Emergency Management Agency shall be the lead agency in coordinating the efforts of the City of Urbandale in formulating and supporting the Hazard Mitigation Plan.

1. City Council Representative
2. City Manager
3. Fire Department
4. Police Department
5. Department of Engineering and Public Works
6. Community Development
7. Parks and Recreation
8. Water Department
9. Polk County Emergency Management Agency

Steering Committee Tasks

1. Coordinate with Polk County Emergency Management to oversee planning process
2. Prioritize hazards vs. resources
3. Select highest and best mitigation strategy alternatives
4. Review planning drafts, alternatives, and updates
5. Develop and implement long and short term goals
6. Integrate the plan with all phases of Comprehensive Community Planning
7. Provide for the implementation of committee decisions
8. Encourage, coordinate, and provide a methodology for the implementation of public input
9. Estimation of implementation costs and time lines where possible

Hazard Analysis and Mitigation Planning Methodology

A hazard analysis provides emergency planners with information about the kinds of emergencies that have occurred or might occur in their jurisdictions and their potential consequences. This analysis helps the planning team decide what hazards merit special attention, what actions must be planned for, what resources are likely to be needed, and which hazards should be priorities for hazard mitigation.

Before we could take a look at specific hazards that could impact Urbandale, it was necessary to provide an accurate and comprehensive profile of the community. By profiling the community's climate, communications, community structure, demographics, history, physical characteristics, and infrastructure, we could begin to have a better understanding of the people and property this process is designed to protect. Vulnerable populations such as elderly, infants, those with language barriers, and people without traditional transportation and communications become apparent through the community profiling process. Is there a need to broadcast warning information in multiple languages? Will there be a need in the future? If Urbandale's elderly population continues to grow, are special evacuation procedures needed such as handicap accessible mass transportation? Other examples include the fact that there are five main television broadcasters in the area. These may be needed for emergency broadcasts or special programs. Over 18% of employed residents are employed in the retail trade sector. If there is a

disruption of this sector because of a disaster, how will Urbandale's economy be affected? If Des Moines' water treatment facility is flooded, which other municipalities may be affected. What about the wastewater treatment facility? You can also begin to gain an understanding of the physical make-up of Urbandale. Urbandale is roughly 21 square miles in area. The main watersheds in Urbandale flow to the Des Moines River through Beaver Creek and the Raccoon River through Walnut Creek and North Walnut Creek. The city is positioned at the farthest reaches of the last glacial flows. Geographic information systems (GIS) allow us to learn what spatial relationships these characters of the community have with each other. GIS played a significant role in this analysis. GIS datasets have been developed and are used in many emergency management functions. This planning effort allowed some of Urbandale's features and populations to be mapped for the first time.

After the community profile was complete, we could begin thinking about the hazards that could potentially impact Urbandale. A fairly exhaustive list was compiled containing natural hazards, threats from technical hazards, as well as hazards such as disease and epidemic and public disorder which did not fall completely into either of the first two categories. From here, we were able to examine each hazard with greater depth. The hazard was defined, described, and broken down into characteristics that were unique to each hazard. Six aspects of the hazards were outlined. These were:

- history of occurrence,
- probability of the hazard occurring again,
- the vulnerability of the people and property in Urbandale to that particular hazard,
- the maximum extent the hazard could invoke affects,
- the severity of its effects, and
- the amount of warning time the community has before its occurrence.

Through the hazard worksheets we could investigate which particular characteristics of the hazard made it a threat to Urbandale and its residents and visitors. Over 50 agencies and organizations were asked to give us further insight into these hazards by commenting and scoring the hazard worksheets for the hazards they had particular responsibilities in or knowledge of. Their score in each of the six aspects provided a hazard worksheet score. This provided verification that we had properly profiled each hazard. Secondly, it allowed the planning team to compare the responses inter-hazard and intra-hazard. The respondents' scores were used as a scoring guide for the planning team and the planning team provided the final hazard score with this input. The hazard worksheet score combined with the number of hazards it could trigger and the number of hazards that could trigger the hazard in question, were totaled into a composite score. The number of triggering and number of resulting hazards were taken from a cascading event matrix that accounted for the complexities of emergencies. For example, a flash flood may create secondary hazards such as erosion, landslides, dam failures, hazardous materials incidents, etc. This composite score can then be used to rank the hazards by the overall risk they pose to Urbandale. Each of the 28 hazards were placed into one of three priority groups based on its final ranking. The priority groups were established by the level of risk the hazard posed to the city and the amount of mitigation that could be done for those particular hazards. The first priority group contains the hazards with the largest degree of risk to the community and an ability to mitigate their impacts, the second priority a lesser degree of risk, and the third priority group contains hazards that can and do occur, but ranked low in the amount of risk they pose to the community.

<p><u>Priority Group 1</u> Hazardous Materials Incident Fire Highway Incident Summer Storm Terrorism Power Failure Winter Storm Pipeline Incident Explosion Tornado</p>	<p><u>Priority Group 2</u> Structural Failure Flash Flood Extreme Heat Energy Shortage Communications Failure Disease & Epidemic Radiological Drought Earthquake</p>	<p><u>Priority Group 3</u> Enemy Attack River Flood Waterway Incident Railway Incident Air Transportation Incident Erosion / Landslide Dam Failure Public Disorder Mining Incident</p>
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This process accomplished multiple goals.

- It enables elected and appointed officials to set priorities commensurate with the degree of needs for public protection;
- it provides descriptive information on every major hazard affecting the community and a methodology for comparison of both similar and vastly different types of hazards;
- it can justify management decisions for altering programming, budgeting, and staffing assignments that may differ from previous norms;
- it encourages identification of technical and research needs in emergency management;
- it provides tools to raise the level of understanding of public officials and to influence the adoption of mitigation alternatives and expenditures of resources to do so;
- it enables the establishment of a viable geographic information system database of hazard vulnerability and other relevant comparable information for planning;
- and it is flexible enough to accommodate hazard analysis that were done in the past as well as those to come in the future.

Now that the risk to the City of Urbandale from these hazards has been quantified, we can use the prioritized mitigation candidates and address them in the hazard mitigation plan.

An effective mitigation plan was then developed through a few basic steps. The Steering Committee focused on actions that will reduce hazard damages. This produced a list of all types of actions that could be taken to reduce losses and eliminate hazards. The actions reflect what needs to be done to reduce future damages, and what improvements could be made of existing systems and programs.

These include strategies in various categories:

- **Prevention** - measures such as planning and zoning, open space preservation, land development regulations, and stormwater management
- **Property protection** - measures such as acquisition, relocation, rebuilding, and floodproofing

- **Natural resource protection** - measures such as erosion and sediment control, and wetland protection
- **Emergency services** - measures such as threat recognition, hazard warning, emergency response, protection of critical facilities, and health and safety maintenance
- **Structural projects** - measures such as dams, reservoirs, dikes, levees, spillways, channel modification, storm sewers and elevated roadways
- **Public information** - measures such as outreach projects, real estate disclosure, hazard information centers, technical assistance, and school age and adult education programs

The Steering Committee also determined whether the mitigation ideas are appropriate measures to solve the identified problems.

- To be successful, the mitigation strategy must be **socially** acceptable
- It is important to determine if the proposed action is **technically** feasible and useful
- Urbandale must have the **administrative** capability to implement the action and accomplish it in a timely manner
- Proposed mitigation strategies must have **political** acceptability
- The community must have the **legal** authority to implement the proposed measure
- **Economic** considerations must include the present economic base, projected growth and opportunity costs, and community plans for economic development
- Impact on the **environment** is an important consideration because of the many statutory considerations, and because public desire for sustainable and environmentally healthy communities

A clear strategy that outlines who will implement the prioritized actions in priority order, and when and how the actions will be implemented. This includes an implementation schedule, a person or agency responsible for ensuring that the schedule is carried out, and identification of the resources required. This strategy takes advantage of technical and financial resources that would become available should a major disaster strike before or while the actions are being implemented. Projects should not be based solely on recovery funds for potential disasters in the future.

The final step in this process is drafting the plan, formally adopting it, and monitoring and evaluating the plan to ensure that actions are completed. It also requires the establishment of a schedule for monitoring, evaluating, and updating the plan at a minimum of every 5 years and in conjunction with a Presidentially-declared disaster for which mitigation assistance is requested.

Goals

1. To protect and provide for the public health, safety, and general welfare of the city.
2. Protection of life before, during, and after the occurrence of disasters from identified hazards
3. Preventing loss of life and reducing the impact of damage where problems cannot be eliminated
4. Protection of emergency response capability
 - Communication and warning systems
 - Emergency medical services and medical facilities
 - Mobile resources
 - Critical facilities
 - Government continuity

5. Protection of developed property, homes and businesses, industry, educational opportunities and the cultural infrastructure by combining hazard loss reduction with the community's environmental, social, and economic needs
6. Promoting public awareness of community hazards and mitigation measures and encouraging public participation in the planning objectives
7. Preserving or restoring natural mitigation values such as floodplains
8. Protection of natural resources and the environment

Objectives

1. Assuring the hazard mitigation plan is a functional document that identifies short and long term alternatives and describing each measure
 - Identification of person, agency, or organization responsible for implementation
 - Projecting a time frame for implementation
 - Explanation of how the project will be financed including the conditions for financing and implementation as information is available
 - Identifying alternative measures, should financing not be available
2. Be consistent with, support, and help implement the goals and objectives of hazard mitigation plans already in place for the City of Urbandale
3. Be based on the City of Urbandale Hazard Analysis
4. Have significant potential to reduce damages to public and/or private property or reduce the cost to local, state, and federal recovery from future disasters
5. Be the most practical, cost-effective, and environmentally sound alternative after consideration of the options
6. Address a repetitive problem, or one that has the potential to have a major impact on an area, reducing the potential loss of life, loss of essential services and personal property, damage to critical facilities, economic loss, hardship or human suffering
7. Meet applicable permit requirements
8. Discourage development in hazardous areas
9. Contribute to both the short and long term solution to the hazard vulnerability risk problem
10. Assuring the benefits of a mitigation measure is equal to or exceeds the cost of implementation
11. Have manageable maintenance and modification costs
12. When possible, be designed to accomplish multiple objectives
 - Improving of life-safety risk
 - Damage reduction
 - Restoration of essential services
 - Protection of critical facilities
 - Security of economic development
 - Environmental enhancement
13. Whenever possible, use existing resources, agencies, and programs to implement the project.

Legal Authority

Federal Laws

- The Federal Civil Defense Act of 1950
- Public Law 96-342 “The Improved Civil Defense Act of 1980”
- Public Law 91-606 “Disaster Relief Act”
- Public Law 93-288 “The Robert T. Stafford Disaster Relief Act of 1974”
- National Flood Insurance Reform Act 1994
- Title 44 Code of Federal Regulations (44 CFR)
- Disaster Mitigation Act of 2000

State Laws

- Code of Iowa Chapter 29C

Local Codes and Ordinances

- Municipal Code of the City of Urbandale, Iowa

Priority I Hazards

Hazardous Materials Incident

Fire

Highway Incident

Summer Storm

Terrorism

Power Failure

Winter Storm

Pipeline Incident

Explosion

Tornado

Hazardous Materials Incident (transportation and fixed facility)

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 2	
Alternative Mitigation Strategy:	Inspection and enforcement of zoning ordinances and building codes; particularly Article 80 of the Uniform Fire Code which addresses requirements germane to hazardous materials and Article 79 related to flammable and combustible liquids.
<p>The Urbandale Fire Department conducts fire inspections in\for commercial buildings for city and state licenses, certificate of occupancy permits, general fire safety inspections, hazardous operations permits, acceptance testing of fire protection systems, installation and removal of underground and above ground storage tanks.</p>	
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Community Development
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 3	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR 1910.120 hazardous waste operations and emergency response.
<p>Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.</p>	
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
	Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
	Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	52
Alternative	Multiple Use Fire Training Facility
Mitigation Strategy:	<p>Use of an on-site training facility could reasonably reduce the certification period to 6 months. The proposed training facility would be constructed from a pre-fabricated metal structure that would be assembled on site. It would be equipped with a burn room, a training tower, training props (vehicle fires, sprinkler systems, fire department connections, a smoke machine for SCBA training), replaceable roof panels for ventilation training, an elevator shaft for confined space training, and lighting for night training. The proposed facility would provide realistic training scenarios to prepare volunteers to handle multiple fire situations.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$470,000
Schedule:	2006 or beyond

Reference Number:	53
Alternative	Rescue Truck Replacement
Mitigation Strategy:	<p>The replacement unit would be sized to transport extrication equipment, extra SCBAs and bottles, equipment for hazardous materials, a portable air cascade system to refill the SCBAs at the incident scene, and reserve space for future rescue capabilities. The unit would satisfy the department's increased responsibilities in confined space, trench rescue, haz mat, incident command functions, and would carry the jays of life and air bags.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$350,000
Schedule:	2003

Reference Number:	54
Alternative	Fire Equipment Replacement
Mitigation Strategy:	<p>Replacement of an engine pumper/ladder truck, and two other units. At the time of replacement, each unit would exceed 20 years old and would be at the end of its economically useful life. Units include a ladder truck at Station No. 2, grass/brush truck at Station No. 2, and a ladder truck at Station No. 1.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$1,300,000
Schedule:	2005 and beyond

Reference Number: 68

Alternative Mitigation Strategy: Continued support of the Des Moines Fire Department's Hazardous Materials Teams

The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.

Lead Agency: Des Moines Fire Department
Supporting Agency: Urbandale Fire Department, Urbandale Police Department
Potential Funding: \$0
Schedule: On-going

Fire (urban and grass/wildfire)

Reference Number:	1
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC). In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	2
Alternative Mitigation Strategy:	Inspection and enforcement of zoning ordinances and building codes; particularly Article 80 of the Uniform Fire Code which addresses requirements germane to hazardous materials and Article 79 related to flammable and combustible liquids. The Urbandale Fire Department conducts fire inspections in\for commercial buildings for city and state licenses, certificate of occupancy permits, general fire safety inspections, hazardous operations permits, acceptance testing of fire protection systems, installation and removal of underground and above ground storage tanks.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Community Development
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	3
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR 1910.120 hazardous waste operations and emergency response. Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
	Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
	Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 7	
Alternative	Continued enforcement of Municipal Code of the City of Urbandale
Mitigation Strategy:	<p>Chapter 24 - Subdivisions Section 43 <i>Utilities</i> Water distribution systems, including the number and location of fire hydrants, shall be designed by a register professional engineer and approved by the Des Moines Water Board prior to installation by the subdivider</p>
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 8	
Alternative	Continued enforcement of Municipal Code of the City of Urbandale
Mitigation Strategy:	<p>New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.</p>
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 52	
Alternative	Multiple Use Fire Training Facility
Mitigation Strategy:	<p>Use of an on-site training facility could reasonably reduce the certification period to 6 months. The proposed training facility would be constructed from a pre-fabricated metal structure that would be assembled on site. It would be equipped with a burn room, a training tower, training props (vehicle fires, sprinkler systems, fire department connections, a smoke machine for SCBA training), replaceable roof panels for ventilation training, an elevator shaft for confined space training, and lighting for night training. The proposed facility would provide realistic training scenarios to prepare volunteers to handle multiple fire situations.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$470,000
Schedule:	2006 or beyond

Reference Number:	53
Alternative	Rescue Truck Replacement
Mitigation Strategy:	<p>The replacement unit would be sized to transport extrication equipment, extra SCBAs and bottles, equipment for hazardous materials, a portable air cascade system to refill the SCBAs at the incident scene, and reserve space for future rescue capabilities. The unit would satisfy the department's increased responsibilities in confined space, trench rescue, haz mat, incident command functions, and would carry the jays of life and air bags.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$350,000
Schedule:	2003

Reference Number:	54
Alternative	Fire Equipment Replacement
Mitigation Strategy:	<p>Replacement of an engine pumper/ladder truck, and two other units. At the time of replacement, each unit would exceed 20 years old and would be at the end of its economically useful life. Units include a ladder truck at Station No. 2, grass/brush truck at Station No. 2, and a ladder truck at Station No. 1.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$1,300,000
Schedule:	2005 and beyond

Reference Number:	67
Alternative	Various Water Supply and Distribution Projects
Mitigation Strategy:	<p>The City has plans for at least 10 water projects that are intended to meet a variety of goals such as creating a looped system for pressures and fire flows, accommodate development, reduce the number of main breaks, and replace undersized mains.</p>
Lead Agency:	Water Department
Supporting Agency:	
Potential Funding:	\$1,873,800
Schedule:	2001-2006 and beyond

Reference Number: 68

Alternative Mitigation Strategy: Continued support of the Des Moines Fire Department's Hazardous Materials Teams

The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.

Lead Agency: Des Moines Fire Department
Supporting Agency: Urbandale Fire Department, Urbandale Police Department
Potential Funding: \$0
Schedule: On-going

Highway Incident

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
<p>Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.</p>	
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
<p>Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.</p>	
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>	
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 9	
Alternative Mitigation Strategy:	Continued use and support of City of Urbandale Snow and Ice Control Manual/Plan
<p>The purpose of the Snow and Ice Control Manual is to establish the City's policy and level of service with respect to ice control and clearing of its street system during the snow season. It serves as a practical guide for the cost effective snow and ice control procedure in and for the City of Urbandale, Iowa.</p>	
Lead Agency:	Urbandale Public Works
Supporting Agency:	Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 10	
Alternative Mitigation Strategy:	Support where appropriate the National Highway Safety Plan
<p>NHTSA is responsible for reducing deaths, injuries and economic losses resulting from motor vehicle crashes. This is accomplished by setting and enforcing safety performance standards for motor vehicles and motor vehicle equipment, and through grants to state and local governments to enable them to conduct effective local highway safety programs. NHTSA investigates safety defects in motor vehicles, sets and enforces fuel economy standards, helps states and local communities reduce the threat of drunk drivers, promotes the use of safety belts, child safety seats and air bags, investigates odometer fraud, establishes and enforces vehicle anti-theft regulations and provides consumer information on motor vehicle safety topics. NHTSA also conducts research on driver behavior and <u>traffic safety</u>, to develop the most efficient and effective means of bringing about safety improvements.</p>	
Lead Agency:	National Highway Traffic Safety Administration
Supporting Agency:	Urbandale Police Department, Department of Engineering and Public Works, Iowa Department of Transportation
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	11
Alternative	Mass Casualty Incident Plan
Mitigation Strategy:	<p>To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.</p>
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	52
Alternative	Multiple Use Fire Training Facility
Mitigation Strategy:	<p>Use of an on-site training facility could reasonably reduce the certification period to 6 months. The proposed training facility would be constructed from a pre-fabricated metal structure that would be assembled on site. It would be equipped with a burn room, a training tower, training props (vehicle fires, sprinkler systems, fire department connections, a smoke machine for SCBA training), replaceable roof panels for ventilation training, an elevator shaft for confined space training, and lighting for night training. The proposed facility would provide realistic training scenarios to prepare volunteers to handle multiple fire situations.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$470,000
Schedule:	2006 or beyond

Reference Number:	53
Alternative	Rescue Truck Replacement
Mitigation Strategy:	<p>The replacement unit would be sized to transport extrication equipment, extra SCBAs and bottles, equipment for hazardous materials, a portable air cascade system to refill the SCBAs at the incident scene, and reserve space for future rescue capabilities. The unit would satisfy the department's increased responsibilities in confined space, trench rescue, haz mat, incident command functions, and would carry the jays of life and air bags.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$350,000
Schedule:	2003

Reference Number:	54
Alternative	Fire Equipment Replacement
Mitigation Strategy:	<p>Replacement of an engine pumper/ladder truck, and two other units. At the time of replacement, each unit would exceed 20 years old and would be at the end of its economically useful life. Units include a ladder truck at Station No. 2, grass/brush truck at Station No. 2, and a ladder truck at Station No. 1.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$1,300,000
Schedule:	2005 and beyond

Reference Number:	58
Alternative	Meredith Drive Bridge at I35/80
Mitigation Strategy:	<p>Proposed is the replacement of the Meredith Drive Bridge, which is currently two lanes without sidewalks or shoulders. The new bridge will be four lanes with sidewalks and shoulders. The existing Meredith Bridge does not comply with contemporary design standards for vertical and horizontal clearances over the Interstate. This condition makes the bridge more vulnerable to structural damage from oversized vehicles. In addition, Meredith Drive, approaching from either direction, is narrow and has a steep grade. These factors, combined with continued development in the area, and the reconstruction of the interchange at Iowa 141 and Interstate 35/80, make this improvement necessary.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Iowa Department of Transportation
Potential Funding:	\$1,954,000
Schedule:	2005

Reference Number:	59
Alternative	Sidewalks at various locations
Mitigation Strategy:	<p>Proposed is the installation of missing sidewalk segments along public streets. The first priorities for this program are to install sidewalks along arterial and collector streets, and designated safe school routes. In 2001, missing sidewalk segments on 100th Street, Townsend Ave., 62nd Street, and 66th Street are proposed for construction. Sidewalk programs for 2002-2006 have been prepared. Sidewalks are necessary for the safe movement of pedestrians, many of whom are children. This program applies only to developed properties which currently lack sidewalks, since vacant parcels will have sidewalks installed as a development requirement.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$2,290,600
Schedule:	Prior work through 2006 and beyond

Reference Number:	63
Alternative	Douglas Avenue and Railroad Crossing
Mitigation Strategy:	<p>Proposed is the replacement of the railroad surface crossings on Douglas Avenue, west of 100th Street. State assistance is anticipated for this project. The current crossing is very rough and consequently slows traffic. The City and the railroad have signed an agreement for the crossing replacement. An agreement with the Iowa Department of Transportation is pending.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Railroad, Iowa Department of Transportation
Potential Funding:	\$183,800
Schedule:	Prior work through 2001

Reference Number:	64
Alternative	Meredith Drive Railroad Crossing Signal
Mitigation Strategy:	<p>Proposed is the installation of a railroad crossing signal on Meredith Drive. This signal would be located between NW Urbandale Drive and 112th Street. The railroad crossing signal would notify vehicles of the presence a train in the vicinity of this crossing. There is currently no automated system to notify drivers of an approaching train. The City applied in 1997 for a Federal Grade Crossing Safety Improvement grant that would provide 90% of the funding. The City would provide the required 10% in matching funds. The level of traffic is a determining factor to receive this grant.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$125,000
Schedule:	2002

Reference Number:	65
Alternative	Various Street and Intersection Improvements
Mitigation Strategy:	<p>The following are specific proposed street and intersection improvements in the City. These seven represent significant accident mitigation projects .</p> <ul style="list-style-type: none"> • Installation of left turn lanes on Douglas Avenue at 79th Street • Reconstruction of east and west bound left turn lanes on Douglas Avenue at 109th Street • 86th Street widening between Madison Avenue and Aurora from 49 feet to 61 feet • Reconfiguration of 100th Street and Hickman Road intersection • 111th Street paving and signal • Douglas Pkwy and I35/80 to 128th street improvements • Douglas Pkwy bridge replacement over I35/80 <p>Each of these projects is designed to increase capacity and reduce the number of accidents</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Iowa Department of Transportation
Potential Funding:	\$11,519,000 (total of the seven projects listed in this strategy)
Schedule:	Prior through 2006 and beyond

Reference Number:	66
Alternative Mitigation Strategy:	Various Traffic Signal Installations and Improvements The City plans on various traffic signal installation and improvements across the City to minimize traffic accidents and increase the efficiency of traffic flow.
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$1,437,500 (total of 10 individual projects)
Schedule:	Prior through 2006 and beyond

Reference Number:	68
Alternative Mitigation Strategy:	Continued support of the Des Moines Fire Department's Hazardous Materials Teams The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.
Lead Agency:	Des Moines Fire Department
Supporting Agency:	Urbandale Fire Department, Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Summer Storm

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	12
Alternative Mitigation Strategy:	Continued enforcement of the Municipal Code of the City of Urbandale, Iowa
	<p>Chapter 24 - Subdivisions Section 43 <i>Utilities</i> All utility lines and mains including telephone, electric, cable television and street lighting lines, gas and water mains and other necessary facilities except electric lines in excess of 15,000 volts shall be installed underground. Incidental appurtenances, such as transformers and their enclosures, pedestal mounted terminal boxes, meters and meter cabinets may be placed above ground subject to the approval of the city engineer but shall be located so as not to be unsightly or hazardous to the public.</p>
Lead Agency:	Community Development
Supporting Agency:	City of Urbandale
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	13
Alternative Mitigation Strategy:	Forestry Improvements
	<p>This project provides for removal of dead trees, shrubbery, and stumps and evaluation, treatment, and trimming of trees in area parks, cemeteries, golf courses, and other park properties. The urban forest can be one of the most valuable infrastructure in the City's park system. Healthy trees stand a much higher chance of surviving the extreme loading that is associated with heavy snow and/or ice. Often, trees and/or tree branches fall onto overhead power lines and disrupt power to homes and businesses. New plantings should be of a hardy variety that stand up well to heavy loading and strong winds.</p>
Lead Agency:	Urbandale Parks & Recreation
Supporting Agency:	Public Works, MidAmerican Energy
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	14
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
	This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Reference Number:	15
Alternative Mitigation Strategy:	Evaluate the need for outdoor warning siren requirements
	Subdivision regulations could require developers pay to install tornado sirens in new subdivisions out of range of current sirens.
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works, Private Sector
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	16
Alternative Mitigation Strategy:	Develop and implement storm shelter requirements in manufactured housing developments
	State enabling legislation allows communities to require new manufactured housing developments, or existing manufacture housing developments that significantly expand, to provide storm shelters for the residents. Because of the characteristics of manufactured homes, even when anchored down, there is a greater risk of damage to the home, injury, or death of the occupants during strong winds and tornadoes
Lead Agency:	Community Development
Supporting Agency:	Private Sector
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	17
Alternative	Develop debris disposal site
Mitigation Strategy:	<p>Summer storms generate large volumes of tree debris. State law prohibits landfill disposal or burning of this material. This project provides for the development of a facility to dispose of tree debris. The disposal site is to be designed for all weather use and capable of grinding as may be required. A shared site may be appropriate and more cost effective.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Community Development, Metro Waste Authority, Iowa Department of Natural Resources, FEMA
Potential Funding:	\$?
Schedule:	

Reference Number:	18
Alternative	Refuge area evaluation
Mitigation Strategy:	<p>Use of this scoring tool allows a school district to identify which building(s) will perform best under natural hazard conditions in the least subjective manner possible. The evaluation checklist has three sections that are applicable. Evaluations on the general building structure, selecting a refuge area in the building, and a wind hazard checklist. All school facilities should utilize this scoring tool to select the best areas within the school building to refuge the students, faculty, and staff. This tool can be used to evaluate other facilities where groups of people gather such as nursing homes, day care centers, community buildings, etc.</p>
Lead Agency:	Urbandale School District
Supporting Agency:	Community Development, Fire Department
Potential Funding:	\$0
Schedule:	2001

Reference Number:	60
Alternative	Drainage Improvements at Various Locations
Mitigation Strategy:	<p>In 2000, the City's Engineering Department prepared a Storm Sewer and Drainage Management Report, based on site reviews of the City's storm sewer and drainage areas. This study identified areas in need of repair and recommended various phased improvements. As part of the report, City staff identified \$504,000 in repairs. The City Council, at its meeting of May 16, 2000, adopted the report and recommended that repairs be accomplished by programming \$50,000 annually to repair public infrastructure that is damaged.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$480,000
Schedule:	2001-2006 and beyond

Reference Number: 61

Alternative Roseland Drive & 70th Street Storm Sewer

Mitigation Strategy:

Proposed is the installation of a 36" storm sewer from Roseland Drive to Rocklyn Creek to the south. The project is located approximately 150 feet east of 70th Street on Roseland Drive. The total length of the new storm sewer would be 375 feet. This project would reduce the flooding that occurs at this intersection and at various private properties in the vicinity. The existing storm sewer is undersized for a 5 year storm.

Lead Agency: Department of Engineering and Public Works

Supporting Agency:

Potential Funding: \$65,000

Schedule: 2001

Terrorism

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
<p>Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.</p>	
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>	
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	19
Alternative Mitigation Strategy:	Law Enforcement Terrorism Training
	Through training, law enforcement personnel should develop the competencies to understand what terrorism is and the risks associated with such an incident, to understand the potential outcomes associated with a terrorist event, and the ability to recognize the presence of, and identify, criminal activity or terrorism in an emergency. Training should also include information on weapons of mass destruction and chemical, biological, and nuclear hazards
Lead Agency:	Urbandale Police Department
Supporting Agency:	Urbandale Fire Department, Federal Bureau of Investigation, Division of Criminal Investigation, Iowa Department of Public Safety, Polk County Sheriff's Office
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	20
Alternative Mitigation Strategy:	Inter- and Intra-agency coordination on potential terrorist activity
	All law enforcement and intelligence agencies should work with the highest degree of communication, coordination, and cooperation. This can be done through training exercises, compatible communication equipment, and networked information systems
Lead Agency:	Urbandale Police Department
Supporting Agency:	Federal Bureau of Investigation, Division of Criminal Investigation, Iowa Department of Public Safety, Polk County Sheriff's Office, Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	21
Alternative Mitigation Strategy:	Continued support of the City of Des Moines Police Department Bomb Squad
	The Des Moines Police Department Bomb Squad provides service not only for the residents of the City of Des Moines, but all Polk County communities, with occasional responses to requests from surrounding counties. Some of the major services provided by the squad include: investigation of suspicious packages, render safe operations performed on explosive devices, disposal of found explosive materials and explosive chemicals, collection of evidence at bombing scenes, technical assistance for the Police Tactical Unit and Fire Department with explosive entry, performing bomb sweeps and security for visiting dignitaries, and providing bomb threat awareness and safety programs for public and private organizations.
Lead Agency:	Des Moines Police Department
Supporting Agency:	Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	22
Alternative Mitigation Strategy:	Continued support of the City of Urbandale Police Department Tactical Unit
	The Tactical Unit operates as a specialized unit providing personnel trained to assist in various situations. The Unit, as a whole, is trained in tear gas deployment and riot training. This Unit is called upon for a variety of operations, including: bicycle patrol, dignitary escort and protection, hostage and barricaded situations (entry team and rifle team), and motorcycle patrol.
Lead Agency:	Urbandale Police Department
Supporting Agency:	West Des Moines Police Department, Des Moines Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	23
Alternative Mitigation Strategy:	Continued to support the Iowa Army National Guard and Iowa Air National Guard where appropriate
	The National Guard postures readiness to mobilize combat ready units and equipment in support of the national military strategy acting as a deterrent to war. The Guard will effectively provide units and equipment to protect life and property, preserve peace, order and public safety of its citizens under the orders of the Governor and participate in local, state, and national programs that constantly improve and add solid value to Iowa and America while serving as the embodiment of the citizen soldier.
Lead Agency:	Iowa Air National Guard, Iowa Army National Guard
Supporting Agency:	Urbandale Police Department, Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	11
Alternative Mitigation Strategy:	Mass Casualty Incident Plan
	To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 68

Alternative Mitigation Strategy: Continued support of the Des Moines Fire Department's Hazardous Materials Teams

The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.

Lead Agency: Des Moines Fire Department
Supporting Agency: Urbandale Fire Department, Urbandale Police Department
Potential Funding: \$0
Schedule: On-going

Power Failure

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	12
Alternative Mitigation Strategy:	Continued enforcement of the Municipal Code of the City of Urbandale, Iowa
	<p>Chapter 24 - Subdivisions Section 43 <i>Utilities</i> All utility lines and mains including telephone, electric, cable television and street lighting lines, gas and water mains and other necessary facilities except electric lines in excess of 15,000 volts shall be installed underground. Incidental appurtenances, such as transformers and their enclosures, pedestal mounted terminal boxes, meters and meter cabinets may be placed above ground subject to the approval of the city engineer but shall be located so as not to be unsightly or hazardous to the public.</p>
Lead Agency:	Community Development
Supporting Agency:	City of Urbandale
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	13
Alternative Mitigation Strategy:	Forestry Improvements
	<p>This project provides for removal of dead trees, shrubbery, and stumps and evaluation, treatment, and trimming of trees in area parks, cemeteries, golf courses, and other park properties. The urban forest can be one of the most valuable infrastructure in the City's park system. Healthy trees stand a much higher chance of surviving the extreme loading that is associated with heavy snow and/or ice. Often, trees and/or tree branches fall onto overhead power lines and disrupt power to homes and businesses. New plantings should be of a hardy variety that stand up well to heavy loading and strong winds.</p>
Lead Agency:	Urbandale Parks & Recreation
Supporting Agency:	Public Works, MidAmerican Energy
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	14
Alternative Mitigation Strategy:	<p>All critical facilities should have access to an auxiliary power supply</p> <p>This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event</p>
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Winter Storm

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>	
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 9	
Alternative Mitigation Strategy:	Continued use and support of City of Urbandale Snow and Ice Control Manual/Plan
<p>The purpose of the Snow and Ice Control Manual is to establish the City's policy and level of service with respect to ice control and clearing of its street system during the snow season. It serves as a practical guide for the cost effective snow and ice control procedure in and for the City of Urbandale, Iowa.</p>	
Lead Agency:	Urbandale Public Works
Supporting Agency:	Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 12	
Alternative Mitigation Strategy:	Continued enforcement of the Municipal Code of the City of Urbandale, Iowa
<p>Chapter 24 - Subdivisions Section 43 <i>Utilities</i> All utility lines and mains including telephone, electric, cable television and street lighting lines, gas and water mains and other necessary facilities except electric lines in excess of 15,000 volts shall be installed underground. Incidental appurtenances, such as transformers and their enclosures, pedestal mounted terminal boxes, meters and meter cabinets may be placed above ground subject to the approval of the city engineer but shall be located so as not to be unsightly or hazardous to the public.</p>	
Lead Agency:	Community Development
Supporting Agency:	City of Urbandale
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	13
Alternative Mitigation Strategy:	Forestry Improvements
	<p>This project provides for removal of dead trees, shrubbery, and stumps and evaluation, treatment, and trimming of trees in area parks, cemeteries, golf courses, and other park properties. The urban forest can be one of the most valuable infrastructure in the City's park system. Healthy trees stand a much higher chance of surviving the extreme loading that is associated with heavy snow and/or ice. Often, trees and/or tree branches fall onto overhead power lines and disrupt power to homes and businesses. New plantings should be of a hardy variety that stand up well to heavy loading and strong winds.</p>
Lead Agency:	Urbandale Parks & Recreation
Supporting Agency:	Public Works, MidAmerican Energy
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	14
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
	<p>This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event</p>
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Reference Number:	17
Alternative Mitigation Strategy:	Develop debris disposal site
	<p>Summer storms generate large volumes of tree debris. State law prohibits landfill disposal or burning of this material. This project provides for the development of a facility to dispose of tree debris. The disposal site is to be designed for all weather use and capable of grinding as may be required. A shared site may be appropriate and more cost effective.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Community Development, Metro Waste Authority, Iowa Department of Natural Resources, FEMA
Potential Funding:	\$?
Schedule:	

Pipeline Incident

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 3	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR 1910.120 hazardous waste operations and emergency response.
<p>Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.</p>	
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
<p>Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.</p>	
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
	Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 24	
Alternative Mitigation Strategy:	Continued support of the Office of Pipeline Safety
	The Department of Transportation's (<u>DOT</u>) Research and Special Programs Administration (<u>RSPA</u>), acting through the Office of Pipeline Safety (OPS), administers the Department's national regulatory program to assure the safe transportation of natural gas, petroleum, and other hazardous materials by pipeline. OPS develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. Since 1986, the entire pipeline safety program has been funded by a user fee assessed on a per-mile basis on each pipeline operator OPS regulates.
Lead Agency:	Office of Pipeline Safety (Federal Dept. of Transportation)
Supporting Agency:	Department of Engineering and Public Works, Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	25
Alternative Mitigation Strategy:	Continued support and promotion of Iowa One Call
	Iowa One Call provides contractors, homeowners, and others who may be excavating, digging or trenching with a single toll-free number to call for locating and marking underground facilities. The toll-free Iowa One Call number is 1-800-292-8989. Iowa law states that if you are excavating, including digging, you must call Iowa One Call at least 48 hours in advance (of your digging) in order to minimize the risk of damaging any type of underground facilities (electric, gas, telecommunications, cable television, water and sewer). The service is free, and so is the phone call. Making the phone call can help eliminate the risk of disrupting service, and greatly reduce the potential risk of serious personal injury.
Lead Agency:	Underground Plant Location Service, Inc., a/k/a Iowa One Call or One Call
Supporting Agency:	Department of Engineering and Public Works, Utilities
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	68
Alternative Mitigation Strategy:	Continued support of the Des Moines Fire Department's Hazardous Materials Teams
	The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.
Lead Agency:	Des Moines Fire Department
Supporting Agency:	Urbandale Fire Department, Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Explosion

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 2	
Alternative Mitigation Strategy:	Inspection and enforcement of zoning ordinances and building codes; particularly Article 80 of the Uniform Fire Code which addresses requirements germane to hazardous materials and Article 79 related to flammable and combustible liquids.
<p>The Urbandale Fire Department conducts fire inspections in\for commercial buildings for city and state licenses, certificate of occupancy permits, general fire safety inspections, hazardous operations permits, acceptance testing of fire protection systems, installation and removal of underground and above ground storage tanks.</p>	
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Community Development
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 3	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR 1910.120 hazardous waste operations and emergency response.
<p>Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.</p>	
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
	Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
	Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	7
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale Chapter 24 - Subdivisions Section 43 <i>Utilities</i> Water distribution systems, including the number and location of fire hydrants, shall be designed by a register professional engineer and approved by the Des Moines Water Board prior to installation by the subdivider
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	8
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	11
Alternative Mitigation Strategy:	Mass Casualty Incident Plan To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	52
Alternative	Multiple Use Fire Training Facility
Mitigation Strategy:	<p>Use of an on-site training facility could reasonably reduce the certification period to 6 months. The proposed training facility would be constructed from a pre-fabricated metal structure that would be assembled on site. It would be equipped with a burn room, a training tower, training props (vehicle fires, sprinkler systems, fire department connections, a smoke machine for SCBA training), replaceable roof panels for ventilation training, an elevator shaft for confined space training, and lighting for night training. The proposed facility would provide realistic training scenarios to prepare volunteers to handle multiple fire situations.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$470,000
Schedule:	2006 or beyond

Reference Number:	53
Alternative	Rescue Truck Replacement
Mitigation Strategy:	<p>The replacement unit would be sized to transport extrication equipment, extra SCBAs and bottles, equipment for hazardous materials, a portable air cascade system to refill the SCBAs at the incident scene, and reserve space for future rescue capabilities. The unit would satisfy the department's increased responsibilities in confined space, trench rescue, haz mat, incident command functions, and would carry the jays of life and air bags.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$350,000
Schedule:	2003

Reference Number:	54
Alternative	Fire Equipment Replacement
Mitigation Strategy:	<p>Replacement of an engine pumper/ladder truck, and two other units. At the time of replacement, each unit would exceed 20 years old and would be at the end of its economically useful life. Units include a ladder truck at Station No. 2, grass/brush truck at Station No. 2, and a ladder truck at Station No. 1.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$1,300,000
Schedule:	2005 and beyond

Reference Number:	67
Alternative	Various Water Supply and Distribution Projects
Mitigation Strategy:	<p>The City has plans for at least 10 water projects that are intended to meet a variety of goals such as creating a looped system for pressures and fire flows, accommodate development, reduce the number of main breaks, and replace undersized mains.</p>
Lead Agency:	Water Department
Supporting Agency:	
Potential Funding:	\$1,873,800
Schedule:	2001-2006 and beyond

Reference Number:	68
Alternative	Continued support of the Des Moines Fire Department's Hazardous Materials
Mitigation Strategy:	Teams
	<p>The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.</p>
Lead Agency:	Des Moines Fire Department
Supporting Agency:	Urbandale Fire Department, Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Tornado

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	8
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.</p>
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	12
Alternative Mitigation Strategy:	Continued enforcement of the Municipal Code of the City of Urbandale, Iowa
	<p>Chapter 24 - Subdivisions Section 43 <i>Utilities</i> All utility lines and mains including telephone, electric, cable television and street lighting lines, gas and water mains and other necessary facilities except electric lines in excess of 15,000 volts shall be installed underground. Incidental appurtenances, such as transformers and their enclosures, pedestal mounted terminal boxes, meters and meter cabinets may be placed above ground subject to the approval of the city engineer but shall be located so as not to be unsightly or hazardous to the public.</p>
Lead Agency:	Community Development
Supporting Agency:	City of Urbandale
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	13
Alternative Mitigation Strategy:	Forestry Improvements
	This project provides for removal of dead trees, shrubbery, and stumps and evaluation, treatment, and trimming of trees in area parks, cemeteries, golf courses, and other park properties. The urban forest can be one of the most valuable infrastructure in the City's park system. Healthy trees stand a much higher chance of surviving the extreme loading that is associated with heavy snow and/or ice. Often, trees and/or tree branches fall onto overhead power lines and disrupt power to homes and businesses. New plantings should be of a hardy variety that stand up well to heavy loading and strong winds.
Lead Agency:	Urbandale Parks & Recreation
Supporting Agency:	Public Works, MidAmerican Energy
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	14
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
	This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Reference Number:	15
Alternative Mitigation Strategy:	Evaluate the need for outdoor warning siren requirements
	Subdivision regulations could require developers pay to install tornado sirens in new subdivisions out of range of current sirens.
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works, Private Sector
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	16
Alternative Mitigation Strategy:	Develop and implement storm shelter requirements in manufactured housing developments
	State enabling legislation allows communities to require new manufactured housing developments, or existing manufacture housing developments that significantly expand, to provide storm shelters for the residents. Because of the characteristics of manufactured homes, even when anchored down, there is a greater risk of damage to the home, injury, or death of the occupants during strong winds and tornadoes
Lead Agency:	Community Development
Supporting Agency:	Private Sector
Potential Funding:	\$?
Schedule:	On-going

Reference Number:	17
Alternative Mitigation Strategy:	Develop debris disposal site
	Summer storms generate large volumes of tree debris. State law prohibits landfill disposal or burning of this material. This project provides for the development of a facility to dispose of tree debris. The disposal site is to be designed for all weather use and capable of grinding as may be required. A shared site may be appropriate and more cost effective.
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Community Development, Metro Waste Authority, Iowa Department of Natural Resources, FEMA
Potential Funding:	\$?
Schedule:	

Reference Number:	18
Alternative Mitigation Strategy:	Refuge area evaluation
	Use of this scoring tool allows a school district to identify which building(s) will perform best under natural hazard conditions in the least subjective manner possible. The evaluation checklist has three sections that are applicable. Evaluations on the general building structure, selecting a refuge area in the building, and a wind hazard checklist. All school facilities should utilize this scoring tool to select the best areas within the school building to refuge the students, faculty, and staff. This tool can be used to evaluate other facilities where groups of people gather such as nursing homes, day care centers, community buildings, etc.
Lead Agency:	Urbandale School District
Supporting Agency:	Community Development, Fire Department
Potential Funding:	\$0
Schedule:	2001

Priority II Hazards

Structural Failure
Flash Flood
Extreme Heat
Energy Shortage
Communications Failure
Disease & Epidemic
Radiological Incident
Drought
Earthquake

Structural Failure

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>	
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 8	
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
<p>New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.</p>	
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 11	
Alternative Mitigation Strategy:	Mass Casualty Incident Plan
<p>To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.</p>	
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	17
Alternative	Develop debris disposal site
Mitigation Strategy:	<p>Summer storms generate large volumes of tree debris. State law prohibits landfill disposal or burning of this material. This project provides for the development of a facility to dispose of tree debris. The disposal site is to be designed for all weather use and capable of grinding as may be required. A shared site may be appropriate and more cost effective.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Community Development, Metro Waste Authority, Iowa Department of Natural Resources, FEMA
Potential Funding:	\$?
Schedule:	

Reference Number:	18
Alternative	Refuge area evaluation
Mitigation Strategy:	<p>Use of this scoring tool allows a school district to identify which building(s) will perform best under natural hazard conditions in the least subjective manner possible. The evaluation checklist has three sections that are applicable. Evaluations on the general building structure, selecting a refuge area in the building, and a wind hazard checklist. All school facilities should utilize this scoring tool to select the best areas within the school building to refuge the students, faculty, and staff. This tool can be used to evaluate other facilities where groups of people gather such as nursing homes, day care centers, community buildings, etc.</p>
Lead Agency:	Urbandale School District
Supporting Agency:	Community Development, Fire Department
Potential Funding:	\$0
Schedule:	2001

Reference Number:	52
Alternative	Multiple Use Fire Training Facility
Mitigation Strategy:	<p>Use of an on-site training facility could reasonably reduce the certification period to 6 months. The proposed training facility would be constructed from a pre-fabricated metal structure that would be assembled on site. It would be equipped with a burn room, a training tower, training props (vehicle fires, sprinkler systems, fire department connections, a smoke machine for SCBA training), replaceable roof panels for ventilation training, an elevator shaft for confined space training, and lighting for night training. The proposed facility would provide realistic training scenarios to prepare volunteers to handle multiple fire situations.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$470,000
Schedule:	2006 or beyond

Reference Number:	53
Alternative	Rescue Truck Replacement
Mitigation Strategy:	<p>The replacement unit would be sized to transport extrication equipment, extra SCBAs and bottles, equipment for hazardous materials, a portable air cascade system to refill the SCBAs at the incident scene, and reserve space for future rescue capabilities. The unit would satisfy the department's increased responsibilities in confined space, trench rescue, haz mat, incident command functions, and would carry the jays of life and air bags.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$350,000
Schedule:	2003

Reference Number:	54
Alternative	Fire Equipment Replacement
Mitigation Strategy:	<p>Replacement of an engine pumper/ladder truck, and two other units. At the time of replacement, each unit would exceed 20 years old and would be at the end of its economically useful life. Units include a ladder truck at Station No. 2, grass/brush truck at Station No. 2, and a ladder truck at Station No. 1.</p>
Lead Agency:	Urbandale Fire Department
Supporting Agency:	
Potential Funding:	\$1,300,000
Schedule:	2005 and beyond

Reference Number:	58
Alternative	Meredith Drive Bridge at I35/80
Mitigation Strategy:	<p>Proposed is the replacement of the Meredith Drive Bridge, which is currently two lanes without sidewalks or shoulders. The new bridge will be four lanes with sidewalks and shoulders. The existing Meredith Bridge does not comply with contemporary design standards for vertical and horizontal clearances over the Interstate. This condition makes the bridge more vulnerable to structural damage from oversized vehicles. In addition, Meredith Drive, approaching from either direction, is narrow and has a steep grade. These factors, combined with continued development in the area, and the reconstruction of the interchange at Iowa 141 and Interstate 35/80, make this improvement necessary.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Iowa Department of Transportation
Potential Funding:	\$1,954,000
Schedule:	2005

Flash Flood

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	26
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>City of Urbandale Zoning Ordinance 3.91 G - Conservancy District City of Urbandale Zoning Ordinance 3.91.1 GFW - Floodway (Overlay) District City of Urbandale Zoning Ordinance 3.91.2 GFF - Floodway Fringe (Overlay) District City of Urbandale Zoning Ordinance 3.91.3 Administration - Floodway District Regulations</p> <p>The purposes of this district are to avoid development in areas subject to flooding and with high groundwater levels, to insure adverse soil conditions are overcome prior to development and to protect wildlife habitat and natural drainage for economical disposal of storm water.</p> <p>It is further the purpose of the Floodway and Floodway Fringe Overlay Districts to protect the City of Urbandale and its inhabitants from losses due to flooding and to promote public health, safety, and general welfare by establishing regulations designed to :</p> <ol style="list-style-type: none">1. Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.2. Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities.3. Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction.4. Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard.5. Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program. <p>Chapter 24 - Subdivisions Section 40 <i>Storm Sewers or Drainage Ways</i> and Section 41 <i>Detention of Storm Water Runoff</i> for the purpose of protecting and providing for the public health, safety, and general welfare of the city; to guide the future growth of the City, in accordance with the comprehensive plan; and to provide safety from flooding. These sections also insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision and to assure the adequacy of drainage facilities.</p>

Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	60
Alternative	Drainage Improvements at Various Locations
Mitigation Strategy:	<p>In 2000, the City's Engineering Department prepared a Storm Sewer and Drainage Management Report, based on site reviews of the City's storm sewer and drainage areas. This study identified areas in need of repair and recommended various phased improvements. As part of the report, City staff identified \$504,000 in repairs. The City Council, at its meeting of May 16, 2000, adopted the report and recommended that repairs be accomplished by programming \$50,000 annually to repair public infrastructure that is damaged.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$480,000
Schedule:	2001-2006 and beyond

Reference Number:	61
Alternative	Roseland Drive & 70 th Street Storm Sewer
Mitigation Strategy:	<p>Proposed is the installation of a 36" storm sewer from Roseland Drive to Rocklyn Creek to the south. The project is located approximately 150 feet east of 70th Street on Roseland Drive. The total length of the new storm sewer would be 375 feet. This project would reduce the flooding that occurs at this intersection and at various private properties in the vicinity. The existing storm sewer is undersized for a 5 year storm.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$65,000
Schedule:	2001

Extreme Heat

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$(Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	14
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
	<p>This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event.</p>
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$(
Schedule:	complete

Reference Number:	31
Alternative Mitigation Strategy:	Polk County Heat Exhaustion Prevention Plan
	<p>The mission is to provide prevention and relief to high risk groups through an established community plan when the heat index is 105 degrees or higher. This plan involves setting up heat shelters in the community, news releases to educate the public on how to protect themselves, a hot line, transportation to shelters, provision of fans, and monitoring of high risk groups through existing agencies and services.</p>
Lead Agency:	Polk County Health Department
Supporting Agency:	Polk County Emergency Management, Urbandale Fire Department
Potential Funding:	\$(
Schedule:	On-going

Energy Shortage

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>	
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 14	
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
<p>This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event.</p>	
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Reference Number: 32	
Alternative Mitigation Strategy:	Support where appropriate the Iowa Energy Emergency Plan
<p>As the lead agency for Iowa's energy emergency preparedness plans, the DNR is responsible for forecasting and managing potential energy emergency situations that could impact the state. Every two years, the DNR organizes a mock crisis exercise in cooperation with the Governor's Office, the Iowa Utilities Board, the Iowa Public Defense Department and other state agencies to ensure that if a real disaster occurs, it is handled safely and correctly. The DNR also provides the Iowa Energy Emergency Plan, a comprehensive operating manual, to state government leaders with the objective of ensuring the health and safety of Iowans during energy emergencies.</p>	
Lead Agency:	Iowa Department of Natural Resources
Supporting Agency:	City of Urbandale
Potential Funding:	\$0
Schedule:	On-going

Communications Failure

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	14
Alternative Mitigation Strategy:	All critical facilities should have access to an auxiliary power supply
	<p>This project would further guarantee that facilities that serve the City in a critical function have a continual supply of power to carry out required duties even when the primary power source is unavailable. A City-wide survey should be conducted to identify those critical facilities that currently do not have an auxiliary power supply. These actions may have already been completed during preparations for the Year 2000 date rollover event.</p>
Lead Agency:	City of Urbandale
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$?
Schedule:	complete

Reference Number:	33
Alternative Mitigation Strategy:	MICRN Radio Network
	<p>Continue support and utilization of the Metropolitan Incident Command Radio Network. This system connects many of the first responder agencies, law enforcement, and emergency management officials in Central Iowa as well as the National Weather Service and MidAmerican Energy on one common radio system.</p>
Lead Agency:	Polk County Emergency Management, National Weather Service
Supporting Agency:	Urbandale Fire Department, Police Department, Public Works, WestComm
Potential Funding:	\$
Schedule:	On-going

Disease and/or Epidemic

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	34
Alternative Mitigation Strategy:	Continued support where appropriate to the Polk County Health Department
	<p>The Health Department provides a broad spectrum of clinical services and programs to prevent and limit the spread of communicable diseases through immunization and testing. Programs designed to maintain and enhance personal and family health are managed and provided by this department and include services to high risk mothers and infants, home health care, and a variety of health promotion screenings. The Polk County Health Department's role in the community includes the following: prevention of epidemics and the spread of disease, protection against environmental hazards, prevention of injuries, promotion and encouragement of healthy behaviors and mental health, responding to disasters and assisting communities in recovery, and assuring the quality and accessibility of health services.</p>
Lead Agency:	Polk County Health Department
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Radiological

Reference Number: 3	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR 1910.120 hazardous waste operations and emergency response.
	Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
	Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 35

Alternative Mitigation Strategy: Support where appropriate the Nuclear Regulatory Commission

The mission of the U.S. Nuclear Regulatory Commission (NRC) is to ensure adequate protection of the public health and safety, the common defense and security, and the environment in the use of nuclear materials in the United States. The NRC's scope of responsibility includes regulation of commercial nuclear power reactors; nonpower research, test, and training reactors; fuel cycle facilities; medical, academic, and industrial uses of nuclear materials; and the transport, storage, and disposal of nuclear materials and waste.

The Division of Industrial and Medical Nuclear Safety (IMNS) within the Office of Nuclear Materials Safety and Safeguards (NMSS) at the NRC has the responsibility for NRC's principal rulemaking and guidance development, licensing, inspection, event response and regulatory activities for material licensed under the Atomic Energy Act of 1954, as amended, to ensure safety and quality associated with the possession, processing, and handling of nuclear material.

The NRC authorizes the use, transportation, and storage of spent nuclear fuel after determining that the proposed activities are consistent with the regulatory framework and the level of risk. NRC develops licensing, certification, physical protection, and quality assurance review criteria and positions for spent fuel storage and transportation for the industry and the public. Primarily, NRC's safety and environmental reviews consist of: (1) commercial transportation cask systems under 10 CFR Part 71 and spent fuel storage cask systems under 10 CFR Part 72, including the certification of storage systems under the general license provisions of 10 CFR Part 72; and (2) interim spent fuel and high-level waste storage facilities, including the licensing of nuclear utility specific facilities and private facilities. Additionally, NRC conducts the review of the U.S. Department of Energy's applications for storage and transportation cask systems for the civilian high-level radioactive waste program. Safety and quality assurance inspections of transport packages and spent fuel storage system vendors, users, and fabricators are performed routinely, including the safety inspections of independent spent fuel storage installations. NRC coordinates and develops guidance with other U.S. Government and international agencies on storage and transportation policy and safety issues. When necessary, NRC provides technical support for incident and emergency response.

Lead Agency: Nuclear Regulatory Commission

Supporting Agency:

Potential Funding: \$0

Schedule: On-going

Reference Number: 68

Alternative Mitigation Strategy: Continued support of the Des Moines Fire Department's Hazardous Materials Teams

The Des Moines Fire Department's Hazardous Materials Teams will be called upon when a situation warrants personnel trained to technician level. When requested, the Hazmat Team responds to hazardous materials incidents within a multi-county region. The Hazmat team has specifically trained personnel and equipment to effectively respond to hazardous materials incidents.

Lead Agency: Des Moines Fire Department

Supporting Agency: Urbandale Fire Department, Urbandale Police Department

Potential Funding: \$0

Schedule: On-going

Drought

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	36
Alternative Mitigation Strategy:	Water Treatment Plants
	<p>The Fleur Drive Water Treatment Plant can draw water from a shallow alluvial water collection system and form the Des Moines and Raccoon Rivers. Saylorville Reservoir is upstream from the raw water intake of the treatment plant. Saylorville Reservoir holds 5 billion gallons of water. The Maffitt Treatment Plant draws water from six wells, sunken 35 feet into the sand and gravel along the Raccoon River. This plant can also draw water from Maffitt Reservoir, which holds 1.2 billion gallons of water. In case of drought, Water Works can take 6.2 billion gallons of water stored in Maffitt Reservoir and in the Saylorville Reservoir. Even at peak summertime consumption officials say that the supply would last the metro area for 100 days. In this worst case scenario, however, usage restrictions would likely be imposed, which would extend the supply.</p>
Lead Agency:	Des Moines Water Works
Supporting Agency:	Urbandale Water Department
Potential Funding:	\$
Schedule:	On-going

Reference Number:	37
Alternative Mitigation Strategy:	Support where appropriate the State of Iowa water allocation regulations
	<p>Section 455B.266 of the Iowa Code calls for regulations for priority allocation of water. Issuance by the governor of a proclamation of a disaster emergency due to a drought or other event affecting water resources of the state allows the DNR to investigate and if appropriate implement the priority allocation plan provided in subsection 2. Uses of water for human consumption and sanitation are top priority, with livestock, manufacturing, irrigation, and recreational purposes following in sequential order.</p>
Lead Agency:	Iowa Department of Natural Resources
Supporting Agency:	Urbandale Water Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	67
Alternative	Various Water Supply and Distribution Projects
Mitigation Strategy:	<p>The City has plans for at least 10 water projects that are intended to meet a variety of goals such as creating a looped system for pressures and fire flows, accommodate development, reduce the number of main breaks, and replace undersized mains.</p>
Lead Agency:	Water Department
Supporting Agency:	
Potential Funding:	\$1,873,800
Schedule:	2001-2006 and beyond

Earthquake

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$(Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	8
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.</p>
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Priority III Hazards

Enemy Attack
River Flood
Waterway Incident
Railway Incident
Air Transportation Incident
Erosion / Landslide
Dam Failure
Public Disorder
Mining Incident

Enemy Attack

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	11
Alternative Mitigation Strategy:	Mass Casualty Incident Plan
	<p>To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.</p>
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	23
Alternative Mitigation Strategy:	Continued to support the Iowa Army National Guard and Iowa Air National Guard where appropriate
	<p>The National Guard postures readiness to mobilize combat ready units and equipment in support of the national military strategy acting as a deterrent to war. The Guard will effectively provide units and equipment to protect life and property, preserve peace, order and public safety of its citizens under the orders of the Governor and participate in local, state, and national programs that constantly improve and add solid value to Iowa and America while serving as the embodiment of the citizen soldier.</p>
Lead Agency:	Iowa Air National Guard, Iowa Army National Guard
Supporting Agency:	Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 38

Alternative Mitigation Strategy: Continued to support the United States Armed Forces

Since the founding of the Republic, the United States has embraced three fundamental and enduring goals: to maintain the sovereignty, political freedom, and independence of the United States, with its values, institutions, and territory intact; to protect the lives and personal safety of Americans, both at home and abroad; and to promote the well-being and prosperity of the nation and its people. Achieving these basic goals requires fostering an international environment in which: critical regions are stable, at peace, and free from domination by hostile powers; the global economy and free trade are growing; democratic norms and respect for human rights are widely accepted; the spread of nuclear, biological, and chemical (NBC) and other potentially destabilizing weapons technologies is minimized; and the international community is willing and able to prevent and, if necessary, respond to calamitous events. The United States plays a leadership role in the international community, working closely and cooperatively with nations that share its values and goals, and influencing those that can affect U.S. national well-being.

Lead Agency: United States Department of Defense
Supporting Agency: Iowa Air National Guard, Iowa Army National Guard
Potential Funding: \$0
Schedule: On-going

River Flood

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	26
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>City of Urbandale Zoning Ordinance 3.91 G - Conservancy District City of Urbandale Zoning Ordinance 3.91.1 GFW - Floodway (Overlay) District City of Urbandale Zoning Ordinance 3.91.2 GFF - Floodway Fringe (Overlay) District City of Urbandale Zoning Ordinance 3.91.3 Administration - Floodway District Regulations</p> <p>The purposes of this district are to avoid development in areas subject to flooding and with high groundwater levels, to insure adverse soil conditions are overcome prior to development and to protect wildlife habitat and natural drainage for economical disposal of storm water.</p> <p>It is further the purpose of the Floodway and Floodway Fringe Overlay Districts to protect the City of Urbandale and its inhabitants from losses due to flooding and to promote public health, safety, and general welfare by establishing regulations designed to :</p> <ol style="list-style-type: none"> 6. Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially. 7. Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities. 8. Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction. 9. Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard. 10. Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program. <p>Chapter 24 - Subdivisions Section 40 <i>Storm Sewers or Drainage Ways</i> and Section 41 <i>Detention of Storm Water Runoff</i> for the purpose of protecting and providing for the public health, safety, and general welfare of the city; to guide the future growth of the City, in accordance with the comprehensive plan; and to provide safety from flooding. These sections also insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision and to assure the adequacy of drainage facilities.</p>

Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	39
Alternative	Maffitt Source Water Treatment Plant
Mitigation Strategy:	<p>Maffitt Treatment Plant draws water from five wells sunk into the sand 35 feet below the Raccoon River. The new plant can be operated remotely and serves as a backup to the Fleur Drive facility in the event the Fleur facility becomes incapacitated.</p>
Lead Agency:	Des Moines Water Works
Supporting Agency:	Urbandale Water Department
Potential Funding:	\$
Schedule:	

Waterway Incident

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	26
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>City of Urbandale Zoning Ordinance 3.91 G - Conservancy District City of Urbandale Zoning Ordinance 3.91.1 GFW - Floodway (Overlay) District City of Urbandale Zoning Ordinance 3.91.2 GFF - Floodway Fringe (Overlay) District City of Urbandale Zoning Ordinance 3.91.3 Administration - Floodway District Regulations</p> <p>The purposes of this district are to avoid development in areas subject to flooding and with high groundwater levels, to insure adverse soil conditions are overcome prior to development and to protect wildlife habitat and natural drainage for economical disposal of storm water.</p> <p>It is further the purpose of the Floodway and Floodway Fringe Overlay Districts to protect the City of Urbandale and its inhabitants from losses due to flooding and to promote public health, safety, and general welfare by establishing regulations designed to :</p> <ol style="list-style-type: none">11. Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.12. Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities.13. Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction.14. Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard.15. Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program. <p>Chapter 24 - Subdivisions Section 40 <i>Storm Sewers or Drainage Ways</i> and Section 41 <i>Detention of Storm Water Runoff</i> for the purpose of protecting and providing for the public health, safety, and general welfare of the city; to guide the future growth of the City, in accordance with the comprehensive plan; and to provide safety from flooding. These sections also insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision and to assure the adequacy of drainage facilities.</p>

Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	60
Alternative Mitigation Strategy:	Drainage Improvements at Various Locations
	<p>In 2000, the City's Engineering Department prepared a Storm Sewer and Drainage Management Report, based on site reviews of the City's storm sewer and drainage areas. This study identified areas in need of repair and recommended various phased improvements. As part of the report, City staff identified \$504,000 in repairs. The City Council, at its meeting of May 16, 2000, adopted the report and recommended that repairs be accomplished by programming \$50,000 annually to repair public infrastructure that is damaged.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$480,000
Schedule:	2001-2006 and beyond

Reference Number:	61
Alternative Mitigation Strategy:	Roseland Drive & 70 th Street Storm Sewer
	<p>Proposed is the installation of a 36" storm sewer from Roseland Drive to Rocklyn Creek to the south. The project is located approximately 150 feet east of 70th Street on Roseland Drive. The total length of the new storm sewer would be 375 feet. This project would reduce the flooding that occurs at this intersection and at various private properties in the vicinity. The existing storm sewer is undersized for a 5 year storm.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$65,000
Schedule:	2001

Railway Incident

Reference Number: 1	
Alternative Mitigation Strategy:	Continued support and enhancement of the Polk County Local Emergency Planning Committee (LEPC).
<p>In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III or the Superfund Amendments and Reauthorization Act (SARA). The Act has had a far-reaching influence on issues relating to hazardous materials. EPCRA contains five sections that cover issues associated with the manufacture, use, exposure, transportation, and public education of hazardous materials. It is the mission of the Local Emergency Planning Committee to implement EPCRA in Polk County and mitigate the effects of a release or spill of hazardous materials. A variety of information is made available to the public upon request. This includes Tier Two Forms, Material Safety Data Sheets, and Facility Risk Management Plans.</p>	
Lead Agency:	Polk County LEPC
Supporting Agency:	Urbandale Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 4	
Alternative Mitigation Strategy:	Any business or operation storing, using, or manufacturing hazardous materials is encouraged to support a community warning system to warn of potential threatening situations resulting from exposure to hazardous materials or other resulting catastrophe.
<p>Community Alert Network is an alerting system that can automatically telephone all homes and businesses in a given area with a specific message. All calls are generated and tracked by a computer system to ensure every number is called. The message will give directions on what those affected should do or where to get more information on evacuation or sheltering-in-place; whichever is deemed appropriate by incident commanders. This system alleviates the need to send emergency personnel into an unsafe area. The system can also be used in other applications where numerous citizens need to be notified in a timely manner.</p>	
Lead Agency:	Private Sector
Supporting Agency:	Polk County LEPC
Potential Funding:	\$30,000 annually (county-wide private sector donations)
Schedule:	On-going

Reference Number: 5	
Alternative Mitigation Strategy:	All Urbandale Fire Department personnel be trained and certified to the Hazardous Materials Operations level.
<p>Training to this level will better ensure the safety of the responding personnel as well as the safety of the general public.</p>	
Lead Agency:	Urbandale Fire Department
Supporting Agency:	Polk County Emergency Management, Polk County LEPC
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	40
Alternative Mitigation Strategy:	Support where appropriate the Federal Railroad Administration's Railroad Safety Assurance and Compliance Program
	<p>The new Safety Assurance and Compliance Program (SACP) is intended to complement the Federal Railroad Administration's traditional safety enforcement program with a comprehensive approach in which SACP participants work with FRA to identify and correct root causes of problems across an entire railroad system. Overall, FRA's short-term performance objective is to reduce by 10 percent all rail-related fatalities from 1994 through 1998, using 1993 as a base year. Achievement of this objective will result in a cumulative reduction of about 380 fatalities over the 5-year period. FRA's policy is zero tolerance for accidents, injuries, or deaths on the Nation's rail system. FRA must continually emphasize vigilance to promote and enhance railroad safety. FRA will accelerate its aggressive efforts, through enforcement as well as safety partnerships with rail labor and management, to improve the safety awareness and management programs on each of the more than 600 railroads in the United States.</p>
Lead Agency:	Federal Railroad Administration
Supporting Agency:	Department of Engineering and Public Works, Community Development
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	41
Alternative Mitigation Strategy:	Track Inspection
	<p>The first federal track safety standards were implemented in 1971, following the enactment of the Federal Railroad Safety Act of 1970 in which Congress granted to the FRA comprehensive authority over "all areas of railroad safety." A qualified railroad employee, in accordance with a schedule prescribed in these Standards (49 CFR 213), must visually inspect all tracks in Iowa. The state of Iowa track inspectors, working with the Federal Railroad Administration, provide regulatory oversight of the railroad track safety effort to enhance railroad compliance with federal law.</p>
Lead Agency:	Iowa Department of Transportation
Supporting Agency:	Federal Railroad Administration
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	42
Alternative Mitigation Strategy:	Support where appropriate the State Grade Crossing Surface Repair fund and Safety Fund outlined in the 2000-2004 Iowa Transportation Improvement Program and the Federal -Aid Rail/Highway Crossing Safety Fund.
	State Grade Crossing Surface Repair Fund provides funds for the repair of rail/highway crossing surfaces. A summary of the program and projects approved for funding is shown in the 2000-2004 Iowa Transportation Improvement Program. The Funding Guide provides a detailed description of the program. State Grade Crossing Safety Fund provides funds for the maintenance of crossing signals. A summary of the program is shown in the 2000-2004 Iowa Transportation Improvement Program. Federal-Aid Rail/Highway Crossing Safety Fund provides funds for safety improvements at rail/highway crossings. A summary of the program and projects approved for funding is shown in the 2000-2004 Iowa Transportation Improvement program. The funding Guide provides a detailed description and application forms.
Lead Agency:	Iowa Department of Transportation
Supporting Agency:	Federal Railroad Administration, Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	43
Alternative Mitigation Strategy:	Support where appropriate the Operation Lifesaver Program
	Operation Lifesaver is a nationwide, non-profit public information program dedicated to eliminating collisions, injuries and fatalities at highway-rail grade crossings and on railroad rights-of-way. Through a network of State Coordinators in 49 states (excluding Hawaii), Operation Lifesaver sends nearly 2,500 volunteers into the field to deliver a public safety message.
Lead Agency:	Operation Lifesaver
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	44
Alternative Mitigation Strategy:	Separation of residential and commercial districts from railroad right-of-ways where possible
	Use of buffer strips and minimum distance requirements for streets and structures as stated in the Municipal Code of the City of Urbandale, Iowa.
Lead Agency:	Community Development
Supporting Agency:	Railroad Industry, Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	63
Alternative	Douglas Avenue and Railroad Crossing
Mitigation Strategy:	<p>Proposed is the replacement of the railroad surface crossings on Douglas Avenue, west of 100th Street. State assistance is anticipated for this project. The current crossing is very rough and consequently slows traffic. The City and the railroad have signed an agreement for the crossing replacement. An agreement with the Iowa Department of Transportation is pending.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Railroad, Iowa Department of Transportation
Potential Funding:	\$183,800
Schedule:	Prior work through 2001

Reference Number:	64
Alternative	Meredith Drive Railroad Crossing Signal
Mitigation Strategy:	<p>Proposed is the installation of a railroad crossing signal on Meredith Drive. This signal would be located between NW Urbandale Drive and 112th Street. The railroad crossing signal would notify vehicles of the presence a train in the vicinity of this crossing. There is currently no automated system to notify drivers of an approaching train. The City applied in 1997 for a Federal Grade Crossing Safety Improvement grant that would provide 90% of the funding. The City would provide the required 10% in matching funds. The level of traffic is a determining factor to receive this grant.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	
Potential Funding:	\$125,000
Schedule:	2002

Air Transportation Incident

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$(Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	11
Alternative Mitigation Strategy:	Mass Casualty Incident Plan
	<p>To provide basic guidelines and policy to provide necessary emergency services at a multiple casualty incident. Incidents involving five or more critical patients or a total patient count greater than ten at one location will be identified as a MCI. The plan involves hospital notification, triage, communications, command, and reporting.</p>
Lead Agency:	Urbandale Fire Department and EMS
Supporting Agency:	Polk County Emergency Management
Potential Funding:	\$0
Schedule:	On-going

Erosion / Landslide

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	8
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>New and/or renovated structures should be inspected and have an approved certificate of occupancy stating that the building and use comply with the provisions of the Zoning Ordinance and the Building and Health Ordinances of the City of Urbandale.</p>
Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	45
Alternative Mitigation Strategy:	Abandoned coal mine mapping and location disclosure
	<p>The Iowa Department of Natural Resources has identified and mapped the locations of known historically mined areas. DNR also has mapped the locations of coalmine entrances. The City should check this dataset for completeness and accuracy. Full disclosure to City engineers, Community Development, and property owners should assist them in making appropriate decision in regard to ground stability.</p>
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	47
Alternative	Enforcement of the Municipal Code of the City of Urbandale, Iowa
Mitigation Strategy:	<p>Continue the enforcement of regulations that require soil investigations as to the adaptability of such soils for the proposed development. Continue the enforcement of regulations requiring a grading permit before any earth moving is done and the installation of erosion control measures.</p>
Lead Agency:	Department of Engineering and Public Works
Supporting Agency:	Community Development Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	57
Alternative	Walker Johnson Park Creek Stabilization
Mitigation Strategy:	<p>Proposed is a creek bank stabilization project utilizing rip-rap and plant materials. The banks of Walnut Creek have eroded in some areas and require stabilization to prevent future damage to park property.</p>
Lead Agency:	Urbandale Parks Department
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$20,000
Schedule:	2006 or beyond

Dam Failure

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	26
Alternative Mitigation Strategy:	Continued enforcement of Municipal Code of the City of Urbandale
	<p>City of Urbandale Zoning Ordinance 3.91 G - Conservancy District City of Urbandale Zoning Ordinance 3.91.1 GFW - Floodway (Overlay) District City of Urbandale Zoning Ordinance 3.91.2 GFF - Floodway Fringe (Overlay) District City of Urbandale Zoning Ordinance 3.91.3 Administration - Floodway District Regulations</p> <p>The purposes of this district are to avoid development in areas subject to flooding and with high groundwater levels, to insure adverse soil conditions are overcome prior to development and to protect wildlife habitat and natural drainage for economical disposal of storm water.</p> <p>It is further the purpose of the Floodway and Floodway Fringe Overlay Districts to protect the City of Urbandale and its inhabitants from losses due to flooding and to promote public health, safety, and general welfare by establishing regulations designed to :</p> <ol style="list-style-type: none"> 16. Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially. 17. Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities. 18. Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction. 19. Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard. 20. Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program. <p>Chapter 24 - Subdivisions Section 40 <i>Storm Sewers or Drainage Ways</i> and Section 41 <i>Detention of Storm Water Runoff</i> for the purpose of protecting and providing for the public health, safety, and general welfare of the city; to guide the future growth of the City, in accordance with the comprehensive plan; and to provide safety from flooding. These sections also insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision and to assure the adequacy of drainage facilities.</p>

Lead Agency:	Community Development
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	48
Alternative Mitigation Strategy:	Continued support where appropriate of the National Dam Safety Program
	<p>Dam owners have primary responsibility for the safe operation and maintenance of their dams. Federal, state, and local governments, and dam owners each have responsibilities in protecting public health and safety. Responsibility for public safety rests with the state. Dam safety programs help in fulfilling these responsibilities but do not relieve owners of legal liability. State regulations should require the owner of a dam to be responsible for the dam's design, construction, operation and maintenance. Local authorities can use zoning and other regulatory procedures to protect people from dam failures. They should also demand that emergency action plans are prepared and maintained current.</p>
Lead Agency:	Iowa Department of Natural Resources
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Public Disorder

Reference Number: 6	
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
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Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number: 23	
Alternative Mitigation Strategy:	Continued to support the Iowa Army National Guard and Iowa Air National Guard where appropriate
<p>The National Guard postures readiness to mobilize combat ready units and equipment in support of the national military strategy acting as a deterrent to war. The Guard will effectively provide units and equipment to protect life and property, preserve peace, order and public safety of its citizens under the orders of the Governor and participate in local, state, and national programs that constantly improve and add solid value to Iowa and America while serving as the embodiment of the citizen soldier.</p>	
Lead Agency:	Iowa Air National Guard, Iowa Army National Guard
Supporting Agency:	Urbandale Police Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 49	
Alternative Mitigation Strategy:	Continued support of the City of Urbandale Police Department
<p>The Urbandale Police Department personnel should be trained to assist in various situations. They may be called upon for a variety of operations, including: bicycle patrol, motorcycle patrol, dignitary escort and protection, hostage and barricaded situations</p>	
Lead Agency:	Urbandale Police Department
Supporting Agency:	
Potential Funding:	\$0
Schedule:	On-going

Mining Incident

Reference Number:	6
Alternative Mitigation Strategy:	Development and distribution of <i>Emergency Prepared Community: Preparedness Guide and Workbook</i>
	<p>The <i>Emergency Prepared Community: Preparedness Guide and Workbook</i> is a 35+ page book that contains information, action steps, and resources specific to Polk County that citizens and families can use to better ensure their safety during times of emergency. Through the document, readers are encouraged to take actions to protect themselves and reduce the reliance on outside help. This will better ensure that the City of Urbandale will have the resources to respond to life threatening situations and not be overwhelmed by non-critical calls for assistance during a disaster. Nearly all the hazards identified through the City of Urbandale Hazard Analysis and Mitigation Planning process are covered.</p>
Lead Agency:	Polk County Emergency Management
Supporting Agency:	City of Urbandale
Potential Funding:	\$? (Combination of public and private contributions to cover printing costs)
Schedule:	Development complete 2001 and distribution on-going

Reference Number:	45
Alternative Mitigation Strategy:	Abandoned coal mine mapping and location disclosure
	<p>The Iowa Department of Natural Resources has identified and mapped the locations of known historically mined areas. DNR also has mapped the locations of coalmine entrances. The City should check this dataset for completeness and accuracy. Full disclosure to City engineers, Community Development, and property owners should assist them in making appropriate decision in regard to ground stability.</p>
Lead Agency:	Community Development
Supporting Agency:	Department of Engineering and Public Works
Potential Funding:	\$0
Schedule:	On-going

Reference Number:	50
Alternative Mitigation Strategy:	Any business or operation should comply with Occupational Safety and Health Administration regulations outlined in 29 CFR.
	<p>Employers shall develop and implement a written safety and health program for their employees involved in mining operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response.</p>
Lead Agency:	Occupational Safety and Health Administration (OSHA)
Supporting Agency:	Department of Engineering and Public Works, Fire Department
Potential Funding:	\$0
Schedule:	On-going

Reference Number: 51

Alternative Enforcement of the Municipal Code of the City of Urbandale, Iowa

Mitigation Strategy:

Such land uses listed in the Zoning Ordinance are subject to approval by the Board of Adjustment after a public hearing. Regulations are intended to safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property.

Lead Agency: Community Development

Supporting Agency:

Potential Funding: \$0

Schedule: On-going

Long Term Goals and Strategies

Many mitigation opportunities are available to reduce losses from natural and technological hazards. Many strategies have been recommended to reduce the risk to the people and property of Urbandale in this plan. Strategies should not be limited only to the ones outlined in the plan. Several categories of opportunities that have been or could be effective are summarized below.

- **Zoning** as a form of land-use management and control can help regulate populations and residential, commercial, and industrial development in hazard-prone areas. It can be used to control building density, adjust the timing of development plans, and better define "allowable" development. As a first step, maps that identify high-hazard areas should be adopted and used to guide, restrict or limit development. Examples are Flood Insurance Rate Maps used to define floodplains.
- **Control or protective structures** may be useful in protecting life and property in certain circumstances. Examples include levees and dams to control floods and structures to divert or control landslides.
- **Building codes** designed to improve construction, reinforcement, and anchoring of buildings and grading codes and practices may be effective in dealing with many hazards. A nationwide hazard-based code may help to ensure implementation of standards appropriate for hazard- and damage-resistant structures.
- **Evacuation planning and preparedness programs** are helpful in protecting residents in areas subject to imminent danger. Examples of effective programs can be found in areas exposed to floods or hazardous materials. In general, evacuation saves lives but does not result in significant damage reduction.
- **Warnings and forecasts** are useful for alerting communities and citizens to an impending hazard event. Both real-time, and longer-range forecasts should be provided. Warnings and forecasts are issued in preparation of possible evacuations and to prompt property protection measures. Examples include warnings for floods and severe weather.
- **Education and awareness efforts** provide hazard information to the public in a non-technical manner to make them aware of the impacts of possible hazards. Informative publications are available for land subsidence, floods, and severe weather. Information can include, but is not limited to, graphic descriptions of hazard areas and evacuation routes, and simple, effective mitigation actions.
- **Research on hazard processes and model development** are needed to understand hazards and their consequences. This approach has been successful for the development of improved rainfall-runoff models for predicting floods, research on inland wind field models, and interdisciplinary research on atmospheric interrelations. Dedicated hazard-specific research facilities could coordinate research efforts with academic institutions and international organizations.
- **Monitoring and data collection** are necessary to support research, to provide affected communities and citizens with better warnings and forecasts, to understand the hazards, and to develop loss reduction methodologies.
- **Buyout, relocation, and demolition** of damaged or high risk structures have been effective in reducing exposure to buildings to some hazards, notably flooding.
- **Modification of certain hazards** may yield benefits. An example of where people have successfully altered a hazard includes detention of floodwaters.
- **Relocation of utilities and transportation routes** out of extremely high risk areas can be beneficial. Such measures have proven effective where above-ground utilities have been buried to reduce damage by high wind and severe winterstorms.

- **Hazard delineation and mapping** are necessary for implementation of land-use controls, zoning, and regulatory setback programs which are effective in dealing with some hazards. Models to identify hazard areas need to be developed or tested to verify accuracy. Hazards that are mapped include floods, hazardous materials fixed facilities, and subsidence areas.
- **Insurance** does not directly reduce physical losses associated with hazards. However, it provides some economic protection through pre-payment and distribution of losses among a wider population. The National Flood Insurance Program is the only program that provides nationwide coverage for flood hazards. Private insurance for other hazards may be available in selected regions, and some states are participating in high risk areas.
- **Legislation** at all levels of government may be necessary to increase mitigation activity and to promote sound land-use and building practices in hazard prone areas. Coordinated legislative efforts may support national approaches to the implementation of a model hazard identification and risk assessment methodology for all hazards. Examples that have created effective programs include the statutes for the NFIP and the Earthquake Hazards Reduction Act.
- **State, Regional and Federal coordination** between and among various agencies and programs encourages loss-reduction opportunities. Specific recommendations have been made for drought mitigation, but other hazards could benefit from coordination as well.
- **Enhancement and integration of Federal programs** by combination of resources merits consideration. FEMA and other Federal agencies can provide leadership to promote and improve hazard identification and risk assessment programs at the State and local levels.

The alternatives found within this document are intended to address immediate and future public safety and health needs and further guarantee the protection and provision of public health, safety, and general welfare of the City. The alternatives are designed to achieve the City's goal of becoming disaster resistant by taking actions before the disaster. Implementing the alternatives will better provide an environment for economic, social, and environmental growth and prosperity for the City of Urbandale.

Correspondence
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Meetings