

# Table of Contents

---

<b>Acknowledgements.....</b>	<b>xi</b>
<b>Executive Summary .....</b>	<b>xiii</b>
Background.....	xiii
Purpose .....	xiv
Hazard Mitigation Citizens Advisory Committee.....	xiv
The Planning Process .....	xiv
Plan Summary .....	xv
Mitigation Measures.....	xvi
Mitigation Action Plan .....	xvi
<b>Chapter 1: Introduction.....</b>	<b>1-1</b>
1.1.1 Purpose .....	1-1
1.1.2 Scope .....	1-1
1.1.3 Authority.....	1-2
1.1.4 Funding.....	1-2
1.1.5 Goals.....	1-2
1.1.6 Definition of Terms .....	1-4
1.1.7 Point of Contact.....	1-4
<b>1.2 Community Description.....</b>	<b>1-5</b>
1.2.1 Geography .....	1-5
1.2.2 Climate .....	1-8
1.2.3 History .....	1-8
1.2.4 Population and Demographics.....	1-8
1.2.5 Local Utilities—Lifelines.....	1-13
1.2.6 Economy.....	1-13
1.2.7 Industry.....	1-13
1.2.8 Future Development .....	1-14
<b>1.3 Regulatory Framework.....</b>	<b>1-15</b>
1.3.1 Comprehensive Planning and Zoning .....	1-15
1.3.2 Floodplain and Stormwater Management .....	1-15
1.3.3 Building Codes .....	1-15
1.3.4 Fire Insurance .....	1-15
<b>1.4 Existing Hazard Mitigation Programs .....</b>	<b>1-16</b>
1.4.1 Community Rating System (CRS) .....	1-16
1.4.2 Flood and Stormwater Management Plans.....	1-16
1.4.3 Capital Improvements Plans.....	1-16

1.4.4	Critical Facilities .....	1-16
1.4.5	Emergency Operations Plan .....	1-17
1.4.6	Fire Department Resources .....	1-20
1.4.7	Law Enforcement Resources .....	1-20
<b>1.5</b>	<b>The Planning Process .....</b>	<b>1-22</b>
1.5.1	Step One: Organize to Prepare the Plan .....	1-22
1.5.2	Step Two: Involve the Public .....	1-25
1.5.3	Step Three: Coordinate with Other Agencies and Organizations .....	1-25
1.5.4	Step Four: Assess the Hazard .....	1-27
1.5.5	Step Five: Assess the Problem .....	1-29
1.5.6	Step Six: Set Goals .....	1-30
1.5.7	Step Seven: Review Possible Activities .....	1-30
1.5.8	Step Eight: Draft an Action Plan .....	1-31
1.5.9	Step Nine: Adopt the Plan .....	1-31
1.5.10	Step Ten: Implement, Evaluate, and Revise .....	1-31
<b>Chapter 2:</b>	<b>Floods .....</b>	<b>2-1</b>
<b>2.1</b>	<b>Hazard Profile .....</b>	<b>2-1</b>
<b>2.2</b>	<b>History of Yukon’s Flooding Problems .....</b>	<b>2-7</b>
2.2.1	The Structural Era of Flood Control .....	2-7
2.2.2	The Regulatory Era of Floodplain Management .....	2-8
2.2.3	The Nonstructural Era of Stormwater Management .....	2-9
2.2.4	The Watershed Era of Comprehensive Management .....	2-9
<b>2.3</b>	<b>Regulation .....</b>	<b>2-11</b>
2.3.1	Ultimate Watershed Urbanization .....	2-11
2.3.2	Watershed-wide Drainage Planning .....	2-11
2.3.3	Stormwater Detention .....	2-11
2.3.4	Valley storage .....	2-12
2.3.5	Freeboard .....	2-12
<b>2.4</b>	<b>Basin Drainage Planning .....</b>	<b>2-13</b>
2.4.1	Basin Drainage Plan .....	2-13
2.4.2	Hydrologic Analysis .....	2-13
2.4.3	Hydraulic Analysis .....	2-14
2.4.4	Existing Conditions .....	2-15
2.4.5	Bridges .....	2-15
2.4.6	Effects of Future Urbanization .....	2-15
2.4.7	Community Rating System .....	2-15
2.4.8	Basin Stormwater Programs .....	2-19

<b>2.5 Vulnerability .....</b>	<b>2-24</b>
<b>2.6 Conclusion .....</b>	<b>2-25</b>
<b>Chapter 3: Additional Hazards .....</b>	<b>3-1</b>
<b>Introduction.....</b>	<b>3-1</b>
Hazards Summary .....	3-2
Hazards Analysis .....	3-6
Secondary Events .....	3-7
<b>3.1 Tornadoes.....</b>	<b>3-8</b>
3.1.1 Hazard Profile.....	3-8
3.1.2 Historical Events .....	3-10
3.1.3 Vulnerable Population .....	3-14
3.1.4 Tornado Scenario.....	3-14
3.1.5 Conclusion.....	3-18
3.1.6 Sources .....	3-18
<b>3.2 High Winds.....</b>	<b>3-19</b>
3.2.1 Hazard Profile.....	3-19
3.2.2 Historical Events .....	3-21
3.2.3 Vulnerable Population .....	3-21
3.2.4 Conclusion.....	3-22
3.2.5 Sources .....	3-22
<b>3.3 Lightning .....</b>	<b>3-23</b>
3.3.1 Hazard Profile.....	3-23
3.3.2 Historical Events .....	3-24
3.3.3 Vulnerable Population .....	3-25
3.3.4 Conclusion.....	3-25
3.3.5 Sources .....	3-26
<b>3.4 Hailstorms .....</b>	<b>3-27</b>
3.4.1 Hazard Profile.....	3-27
3.4.2 Historical Events .....	3-28
3.4.3 Vulnerable Population .....	3-28
3.4.4 Conclusion.....	3-29
3.4.5 Sources .....	3-29
<b>3.5 Winter Storms.....</b>	<b>3-30</b>
3.5.1 Hazard Profile.....	3-30
3.5.2 Historical Events .....	3-31
3.5.3 Vulnerable Population .....	3-32
3.5.4 Conclusion.....	3-32

3.5.5	Sources .....	3-33
<b>3.6</b>	<b>Extreme Heat .....</b>	<b>3-34</b>
3.6.1	Hazard Profile.....	3-34
3.6.2	Historical Events .....	3-35
3.6.3	Vulnerable Population .....	3-36
3.6.4	Conclusion.....	3-37
3.6.5	Sources .....	3-37
<b>3.7</b>	<b>Drought.....</b>	<b>3-38</b>
3.7.1	Hazard Profile.....	3-38
3.7.2	Historical Events .....	3-40
3.7.3	Vulnerable Population .....	3-41
3.7.4	Conclusion.....	3-42
3.7.5	Sources .....	3-42
<b>3.8</b>	<b>Expansive Soils.....</b>	<b>3-44</b>
3.8.1	Hazard Profile.....	3-44
3.8.2	Historical Events .....	3-45
3.8.3	Vulnerable Population .....	3-45
3.8.4	Conclusion.....	3-47
3.8.5	Sources .....	3-47
<b>3.9</b>	<b>Urban Fires .....</b>	<b>3-48</b>
3.9.1	Hazard Profile.....	3-48
3.9.2	Historical Events .....	3-48
3.9.3	Critical Facility Fires.....	3-51
3.9.4	Vulnerable Population .....	3-52
3.9.5	Conclusion.....	3-53
3.9.6	Sources .....	3-53
<b>3.10</b>	<b>Wildfires .....</b>	<b>3-54</b>
3.10.1	Hazard Profile.....	3-54
3.10.2	Historical Events .....	3-55
3.10.3	Vulnerable Population .....	3-57
3.10.4	Conclusion.....	3-57
3.10.5	Sources .....	3-58
<b>3.11</b>	<b>Earthquakes .....</b>	<b>3-59</b>
3.11.1	Hazard Profile.....	3-59
3.11.2	Historical Events .....	3-61
3.11.3	Vulnerable Population .....	3-62
3.11.4	Conclusion.....	3-63
3.11.5	Sources .....	3-63

<b>3.12 Hazardous Materials Events .....</b>	<b>3-65</b>
3.12.1 Hazard Profile.....	3-65
3.12.2 Historical Events .....	3-67
3.12.3 Vulnerable Population .....	3-68
3.12.4 Conclusion.....	3-72
3.12.5 Sources .....	3-72
<b>3.13 Dam Failures.....</b>	<b>3-73</b>
3.13.1 Hazard Profile.....	3-73
3.13.2 Historical Events .....	3-74
3.13.3 Vulnerable Population .....	3-75
3.13.4 Dam Break Scenario.....	3-77
3.13.5 Conclusion.....	3-80
3.13.6 Sources .....	3-80
<b>3.14 Transportation Hazards.....</b>	<b>3-81</b>
3.14.1 Hazard Profile.....	3-81
3.14.2 Historical Events .....	3-88
3.14.3 Vulnerable Population .....	3-90
3.14.4 Conclusion.....	3-90
3.14.5 Sources .....	3-92
<b>Chapter 4: Mitigation Strategies .....</b>	<b>4-1</b>
The Research, Review, and Prioritization Process.....	4-1
Mitigation Categories .....	4-1
<b>4.1 Yukon Hazard Mitigation Goals.....</b>	<b>4-2</b>
4.1.1 General Goals for all Natural Hazards .....	4-2
4.1.2 Specific Goals for Particular Natural Hazards .....	4-2
<b>4.2 Public Information and Education .....</b>	<b>4-5</b>
4.2.1 Map Information.....	4-5
4.2.2 Library .....	4-6
4.2.3 Websites .....	4-6
4.2.4 Outreach Projects.....	4-8
4.2.5 Technical Assistance .....	4-8
4.2.6 Real Estate Disclosure.....	4-9
4.2.7 Educational Programs.....	4-9
4.2.8 Public Information Program Strategy.....	4-10
4.2.9 Conclusions .....	4-11
4.2.10 Recommendations .....	4-12
<b>4.3 Preventive Measures .....</b>	<b>4-14</b>
4.3.1 Planning.....	4-14

4.3.2	Zoning.....	4-15
4.3.3	Open Space Preservation.....	4-15
4.3.4	Building Codes.....	4-15
4.3.5	Floodplain Development Regulations.....	4-15
4.3.6	Stormwater Management.....	4-17
4.3.7	Power Outages from Winter Storms.....	4-18
4.3.8	IBHS Fortified Home Program.....	4-19
4.3.9	Extreme Heat Protection.....	4-21
4.3.10	Smoke Detectors.....	4-22
4.3.11	Proper Disposal of Hazardous Materials.....	4-22
4.3.12	Hurricane Clips.....	4-23
4.3.13	Conclusions.....	4-23
4.3.14	Recommendations.....	4-23
<b>4.4</b>	<b>Structural Projects.....</b>	<b>4-26</b>
4.4.1	Reservoirs and Detention.....	4-26
4.4.2	Safe Rooms.....	4-26
4.4.3	School Safe Rooms.....	4-27
4.4.4	Levees and Floodwalls.....	4-27
4.4.5	Channel Improvements.....	4-28
4.4.6	Crossings and Roadways.....	4-28
4.4.7	Drainage and Storm Sewer Improvements.....	4-28
4.4.8	Drainage System Maintenance.....	4-29
4.4.9	Conclusions.....	4-29
4.4.10	Recommendations.....	4-30
<b>4.5</b>	<b>Property Protection.....</b>	<b>4-31</b>
4.5.1	Acquisition and Relocation.....	4-31
4.5.2	Building Elevation.....	4-32
4.5.3	Barriers.....	4-32
4.5.4	Retrofitting.....	4-32
4.5.5	Insurance.....	4-34
4.5.6	The City’s Role.....	4-35
4.5.7	Lightning Protection Systems.....	4-36
4.5.8	Surge Protectors.....	4-37
4.5.9	Landscaping for Wildfire Prevention.....	4-37
4.5.10	Conclusions.....	4-38
4.5.11	Recommendations.....	4-38
<b>4.6</b>	<b>Emergency Services.....</b>	<b>4-39</b>
4.6.1	Threat Recognition.....	4-39
4.6.2	Warning.....	4-40
4.6.3	Response.....	4-41

4.6.4	Critical Facilities Protection .....	4-42
4.6.5	Post-Disaster Recovery and Mitigation .....	4-42
4.6.6	Debris Management.....	4-43
4.6.7	CERT (Community Emergency Response Team) .....	4-43
4.6.8	StormReady Communities.....	4-44
4.6.9	Emergency Operations Plan (EOP).....	4-44
4.6.10	Incident Command System (ICS).....	4-45
4.6.11	Conclusions .....	4-46
4.6.12	Recommendations .....	4-46
<b>4.7</b>	<b>Natural Resource Protection .....</b>	<b>4-48</b>
4.7.1	Wetland Protection .....	4-48
4.7.2	Erosion and Sedimentation Control.....	4-49
4.7.3	River Restoration.....	4-50
4.7.4	Best Management Practices.....	4-50
4.7.5	Dumping Regulations.....	4-51
4.7.6	Conclusions .....	4-52
4.7.7	Recommendations .....	4-52
<b>Chapter 5: Action Plan.....</b>		<b>5-1</b>
<b>Chapter 6: Plan Maintenance and Adoption .....</b>		<b>6-1</b>
6.1	Monitoring, Evaluating, and Updating the Plan .....	6-1
6.2	Public Involvement.....	6-1
6.3	Incorporating the Multi-Hazard Mitigation Plan .....	6-2
<b>Appendix A: Glossary of Hazard Mitigation Terms .....</b>		<b>A-1</b>
<b>Appendix B: Agendas.....</b>		<b>B-1</b>

# List of Tables

---

Table 1–1: City of Yukon Population.....	1–9
Table 1–2: City of Yukon Housing Units, By Type.....	1–9
Table 1–3: City of Yukon Property Types by Assessed Values.....	1–9
Table 1–4: Utility Suppliers for Yukon.....	1–13
Table 1–5: Yukon Critical Facilities.....	1–19
Table 1–6: Yukon Hazard Mitigation Citizens and Technical Advisory Committee Meetings and Activities.....	1–24
Table 1–7: How and Why Hazards Were Identified.....	1–27
Table 2–1: City of Yukon Streams and Drainage Areas.....	2–5
Table 2–2: Hypothetical Storm Rainfall in Yukon, OK.....	2–14
Table 2–3: Yukon’s Critical Facilities in the Floodplain.....	2–16
Table 2–4: Yukon’s Hazardous Materials in the Floodplain.....	2–20
Table 2–5: Yukon’s Tank Batteries & Wells in the Floodplain.....	2–21
Table 2–6: Yukon Floodplain Building Vulnerability.....	2–24
Table 3–1: Fujita Scale.....	3–9
Table 3–2: Tornadoes in Oklahoma and Yukon Since 1950 and Since 1995.....	3–10
Table 3–3: Tornado Fatalities in the United States.....	3–14
Table 3–4: Tornado Scenario.....	3–17
Table 3–5: Beaufort Scale of Wind Strength.....	3–20
Table 3–6: Saffir-Simpson Scale.....	3–20
Table 3–7: Fatalities and Property Damage Caused by High Winds From 1995 to 2000.....	3–21
Table 3–8: History of Lightning Events, Fatalities, and Damages from 1995 to 2000.....	3–24
Table 3–9: Locations of Injurious Lightning Strikes.....	3–25
Table 3–10: Yukon Fatalities and Reported Damages Caused by ≥1” Diameter Hail From 1995 to 2000.....	3–28
Table 3–11: History of Severe Winter Storms, Fatalities, and Damages from 1995 to 2000.....	3–32
Table 3–12: Deaths from Extreme Heat.....	3–36
Table 3–13: Oklahoma Urban Fires & Fire Related Injuries and Deaths, 1997-2001.....	3–50
Table 3–14: Yukon, OK Urban Fires 1997-2001.....	3–51
Table 3–15: Oklahoma Critical Facility Fires, 1997-2001.....	3–52
Table 3–16: Yukon Critical Facilities Fires, 1997-2001.....	3–52
Table 3–17: Oklahoma Grass and Crop Fires, 1997-1999.....	3–56
Table 3–18: Oklahoma Wildland Fires, 1997-1999.....	3–56
Table 3–19: Yukon History of Wildfire Events and Damages from 1997 to 2001.....	3–57
Table 3–20: Comparison of Mercalli and Richter Scales.....	3–61
Table 3–21: U.S. Hazardous Materials Incidents 1991-2002.....	3–67



Table 3–22: Yukon Hazardous Materials Incidents 1990 - 2003 .....	3–68
Table 3–23: Yukon Hazardous Materials Sites .....	3–69
Table 3–24: Dam Break Scenario .....	3–78
Table 3–25: Critical Facilities in Dam Break Area .....	3–78
Table 3–26: Hazardous Material Transport Placards.....	3–86
Table 4–1: Multi-Hazard Mitigation Web Sites .....	4–7
Table 4–2: Recommended Mitigation Activities for Public Information and Education.....	4–12
Table 4–3: Recommended Mitigation Activities for Preventive Measures.....	4–24
Table 4–4: Recommended Mitigation Activities for Structural Projects.....	4–30
Table 4–5: Recommended Mitigation Activities for Property Protection.....	4–38
Table 4–6: Recommended Mitigation Activities for Emergency Services .....	4–47
Table 4–7: Recommended Mitigation Activities for Natural Resource Protection.....	4–52
Table 5–1: Multi-Hazard Mitigation Measures, By Priority and Hazard .....	5–4

# List of Figures

---

Figure 1–1: City of Yukon Base Map.....	1–6
Figure 1–2: City of Yukon Land Use Map.....	1–7
Figure 1–3: City of Yukon Age 65 & Older Population Locations.....	1–10
Figure 1–4: City of Yukon Low Income Areas.....	1–11
Figure 1–5: City of Yukon Mobile Home Park Locations.....	1–12
Figure 1–6: City of Yukon Critical Facilities.....	1–18
Figure 1–7: Yukon Warning Siren Map.....	1–21
Figure 2–1: Canadian County Basin Map.....	2–2
Figure 2–2: Yukon Drainage Basins.....	2–4
Figure 2–3: Yukon Regulatory Floodplain.....	2–6
Figure 2–4: Yukon’s Repetitive Loss Properties in the Floodplain.....	2–17
Figure 2–5: Yukon’s Critical Facilities in the Floodplain.....	2–18
Figure 2–6: Hazardous Material in the Floodplain.....	2–22
Figure 2–7: Local Floodplain Concerns.....	2–26
Figure 2–8: Local Floodplain Concerns.....	2–27
Figure 2–9: Local Floodplain Concerns.....	2–28
Figure 2–10: Local Floodplain Concerns.....	2–29
Figure 2–11: Local Floodplain Concerns.....	2–30
Figure 2–12: Local Floodplain Concerns.....	2–31
Figure 2–13: Local Floodplain Concerns.....	2–32
Figure 2–14: Local Floodplain Concerns.....	2–33
Figure 3–1: Historical Tornado Paths in Canadian County.....	3–8
Figure 3–2: Historic Tornado Damages.....	3–13
Figure 3–3: Tornado Scenario.....	3–16
Figure 3–4: Expansive Soils Map.....	3–46
Figure 3–5: Hazardous Materials Sites.....	3–70
Figure 3–6: Oil Well/Tank Battery Tier 2 Sites.....	3–71
Figure 3–7: Dam Break Scenario Map.....	3–79
Figure 3–8: Yukon Transportation Corridor Hazards.....	3–91
Figure 4–1: Public Service Notice for Flooding.....	4–13

---

# Acknowledgements

The City of Yukon Multi-Hazards Mitigation Plan was developed with assistance from a Hazard Mitigation Grant from the Oklahoma Department of Civil Emergency Management, the Federal Emergency Management Agency, and local funding from the City of Yukon. The Yukon Multi-Hazard Mitigation Plan, November 2003, was prepared by the City of Yukon, Oklahoma, under the direction of the Canadian County Commissioners Office. Numerous agencies, organizations, and individuals participated in the study, including:

## City of Yukon Elected Officials

Mayor, City Council Ward 1	Earline Smaistrla
City Council Ward 2	Ward Larson
City Council Ward 3	John Alberts
City Council Ward 4	Bob Bradway
City Council Ward at Large	Dewayne Maxey
City Clerk	Pat Hargis

## Yukon Hazard Mitigation Citizen Advisory Board

Sheri Johnston	Dale Sharp
Richard Fabian	Patrick Williams
Patrick Bumpas	Terry Beavers

## Yukon Staff Technical Advisory Committee

Ike Shirley	Chief of Police, Project Manager
Earline Smaistrla	Mayor
Jim Crosby	City Manager
Jeff Lara	Fire Chief
John Corn	Deputy Chief of Police
Mitchell Hort	Community Development Director
John Bridges	Police Training & EMS Coordinator
Robbie Williams	Triad Design Engineer
Jerry Reed	Director of Public Works
Jeff Deckard	Assistant Director of Public Works
Tim Rundel	Personnel Director
Jimmy White	Fire Department

## Consultants

<b>R. D. Flanagan &amp; Associates</b>	Ronald D. Flanagan, CFM, Principal
Planning Consultants	Sterling Overturf
2745 E. Skelly Drive, Suite 100	David Wakefield
Tulsa, Oklahoma 74105	Dave Lister
(918) 749-2696	Nancy Mulcahy
<a href="mailto:rdf@rdflanagan.com">rdflanagan@rdflanagan.com</a>	

**Meshek & Associates, Inc.**  
Engineering Consultants  
P.O. Box 636  
Sand Springs, Oklahoma 74063  
(918) 241-2803  
[jmeshek@meshekengr.com](mailto:jmeshek@meshekengr.com)

Janet K. Meshek, P.E., CFM, President  
H. Dale Reynolds, P.E.  
Meredith Reeder  
Chris Hill

**French & Associates, Ltd.**  
Planning Consultants  
153 Nanti Street  
Park Forest, Illinois, 60466  
(708) 747-5273  
[FrenchAsoc@aol.com](mailto:FrenchAsoc@aol.com)

French Wetmore, CFM  
Mary Lu Wetmore

---

# Executive Summary

Oklahoma's location -- at the intersection of the hot arid zone to the west, the temperate zone to the northeast, and the hot humid zone to the southeast -- makes it subject to a wide variety of potentially violent weather and natural hazards.

Making people and businesses as safe as possible from a variety of natural and man-made hazards is a fundamental responsibility of government to its citizens, and in making the area attractive for newcomers new and expanding businesses. This Yukon Multi-Hazard Mitigation Plan (MHMP) is a citywide effort to identify potential hazards and develop a sound plan to mitigate their impacts, with the goal of saving lives and property. This plan fulfills the requirements of the Hazard Mitigation Grant Program (HMGP) of the Federal Emergency Management Agency (FEMA) and the Oklahoma Department of Civil Emergency Management (ODCEM).



Chief Ike Shirley leading a discussion of the City of Yukon Hazard Mitigation Citizens Advisory Committee

Approval of this plan will qualify the City of Yukon to apply for HMGP disaster mitigation funds following a federal disaster declaration, as required under Section 409 of the *Robert T. Stafford Disaster Relief and Emergency Assistance Act of 2000*.

## Background

The City of Yukon is vulnerable to natural and man-made hazards. The Hazard Mitigation Citizen Advisory Committee of Yukon has identified 14 hazards affecting the city, including floods, tornadoes, high winds, lightning, hailstorms, severe winter storms, extreme heat, drought, expansive soils, urban fires, wildfires, earthquakes, hazardous materials events, and dam failures.

## Purpose

The purpose of this plan is to:

- Assess the ongoing mitigation activities in the community
- Identify and assess the hazards that pose a threat to citizens and property
- Evaluate additional mitigation measures that should be undertaken
- Outline a strategy for implementation of mitigation projects

The objective of this plan is to provide guidance for community activities for the next five years. It will ensure that the City of Yukon and other partners implement activities that are most effective and appropriate for mitigating natural hazards and hazardous materials incidents.

## Hazard Mitigation Citizens Advisory Committee

Citizens and professionals active in disasters provided important input in the development of the plan and recommended goals and objectives, mitigation measures, and priorities for actions. The Yukon Hazard Mitigation Citizen Advisory Committee (HMCAC) is comprised of citizen leaders of the community appointed by elected officials.



Citizens and staff discuss hazards at City of Yukon offices during a Citizens Advisory Committee meeting

## The Planning Process

The planning for the City of Yukon MHMP followed a ten-step process, based on guidance and requirements of FEMA for the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, and the Community Rating System (CRS).

1. Organize to prepare the plan
2. Involve the public
3. Coordinate with other agencies and organizations
4. Assess the hazard
5. Assess the problem
6. Set goals
7. Review possible activities
8. Draft the action plan
9. Adopt the plan
10. Implement, evaluate, and revise

## Plan Summary

The Yukon Multi-Hazard Mitigation Plan provides guidance to help citizens protect life and property from natural hazards. The plan identifies the hazards that are most likely to strike the city, provides a profile and risk assessment of each hazard, identifies mitigation measures for each hazard, and presents an action plan for the implementation of the mitigation measures.

**Chapter 1** provides a profile of the City of Yukon that includes a community description, a discussion of existing hazard mitigation programs, and detailed information on the planning process.

**Chapter 2** presents an assessment of Yukon’s flooding problems and reviews the actions taken to solve them.

**Chapter 3** provides an assessment of 13 additional natural hazards and of hazardous materials events. Each assessment includes a hazard profile, historical events, the vulnerable population, and a conclusion.

**Chapter 4** sets goals and organizes proposed mitigation strategies under six mitigation categories: public information and education, preventive activities, structural projects, property protection, emergency services, and natural resource protection.

**Chapter 5** outlines an action plan for the implementation of high priority mitigation projects, including a description of the project, the responsible party, how much it will cost, funding sources, and timelines for implementation.

**Chapter 6** provides a discussion of the plan maintenance process and documentation of the adoption. Plan maintenance includes monitoring, evaluating, and updating the plan with involvement of the public.

**Appendix A** provides a glossary of terms commonly used in disaster management and hazard mitigation.

**Appendix B** provides the agendas from HMCAC meetings and supporting staff meetings.



Each year Oklahoma has more tornado events per square mile than any other state

## Mitigation Measures

The following are the high priority mitigation measures defined by the Yukon Hazard Mitigation Citizens Advisory Committee:

### *Hazardous Materials Events*

- Develop and reinforce hazardous materials emergency equipment and response teams.

### *Transportation*

- Assess risks and develop a plan for responding to hazardous materials incidents on major transportation routes through the community.

### *General*

- Develop a secondary water supply system.
- Develop a community debris management plan.
- Develop an all-hazards public information and awareness program.
- Acquire and utilize GIS and GPS technologies to record and maintain information on public

infrastructure, private safe rooms and private water wells.

- Provide certified disaster training for city supervisory staff.
- Identify citizens who can serve as foreign language translators.

### *Winter Storms*

- Develop a contingency plan for responding to massive power outages caused by severe storms.

### *Urban Fires*

- Develop a plan for ongoing replacement of inadequately sized water lines with lines of sufficient size to provide adequate fire protection.

## Mitigation Action Plan

The mitigation action plan (Chapter 5) includes strategies for implementing the mitigation measures, including information on the responsible agency, time frame, cost estimate, funding sources, and a statement of the measurable results.

*For further information, contact:*

Ike Shirley, Emergency Manager  
City of Yukon  
100 S. Ranchwood Blvd.  
Yukon, OK 73099  
(405) 354-1551