

# Chapter 5:

## Action Plan

The City of Skiatook has reviewed and analyzed the risk assessment studies for the natural hazards and hazardous material events that may impact the Skiatook area. The SHMAC also reviewed the list of recommended actions included in the previous plan to determine if the actions should be deferred, cancelled or continued. The results of this review are included in Table 5-1 below.

**Table 5-1. Status of Mitigation Measures from Previous Plan**

Action Plan #	2008 Action Plan Measures	Progress 2008-2014	Status in 2014 Plan Update
1	Develop a truck by-pass route around the Town to reduce the possibility of a hazardous material incident along the main route (Highway 20) through the Town.	No significant progress to date on this activity.	Included in Updated Plan as Action Item #11.
2	Build community partnerships involving local government leaders, civic, business and volunteer groups to work together for a safer community	Determined to be an ongoing issue.	Ongoing project restated and reassigned as Action Plan Item #4.
3	Teach Town employees and community residents the symptoms of common life-threatening emergencies, for instance, the symptoms of heat disorders, and how to give CPR and first aid.	Considered to be a routine activity due to workforce turnover.	Continued as part of Action Item #14.
4	Supply NOAA Weather Radios to all local government buildings, schools and critical facilities	Activity has been started but is not complete.	Ongoing project redefined and reassigned as Action Plan Item #1.
5	Tree trimming needs around power lines to lessen the probability of tree branches causing power outages due to severe winter storms, ice and snow.	Significant activity in this area since 2003 continued maintenance is necessary, provided by Town and other franchise utilities.	Considered to be a routine activity and has been dropped from Updated Action Plan.
6	Acquire floodplain properties where acquisition is the most cost effective mitigation measure.	No Activity.	Continued as part of Action Item #3.
7	Evaluate and upgrade the Town warning systems, and upgrade the emergency communication network for Skiatook emergency operations.	Storm sirens, emergency radio equipment and back-up generators have been purchased and replaced.	Continued as part of Action Item #1.
8	Provide safe rooms in the police and fire stations to protect the community's first responders.	No significant progress to date on this activity.	Continued as Action Item # 8.

9	Develop a plan for Skiatook Police and Fire Department personnel to expand their knowledge and capabilities relative to hazardous materials and events, including meth labs.	A Methamphetamine Ordinance has been adopted by the City of Skiatook and activity has decreased. Completed Item-Delete from Action Plan	Dropped from Updated Action Plan.
10	Verify the accuracy of existing floodplain maps and review and update land use ordinances to avoid construction in flood-prone locations.	City Ongoing City Capital Improvement Activity. Now covered under City Development Ordinances.	Ongoing project, restated and reassigned as Action Plan Item #10
11	Hazard Occurrence Data Collection.	Considered to be an ongoing activity due to updates in FEMA Flood Maps.	Continued as part of Action Item # 9.
12	Public Education for Mitigation	Determined to be an ongoing issue.	Continued as part of Action Item # 5.
13	Dam Break Inundation Map- Develop location listing, and or, map that identifies buildings and critical facilities within dam inundation zones vulnerable to flooding from dam failures.	To date the 500 year floodplain has been considered to be adequate for planning purposes.	Continued as part of Action Item # 9.
14	Window Laminates- Install protective Film on windows or replace with break resistant glass in all existing City buildings.	No significant progress to date on this activity.	Continued as part of Action Item # 18..
15	Surge Protectors - Install lighting protection and suppression systems protecting radios, computers, and other essential equipment at critical facilities throughout the jurisdiction.	Activity completed. Delete from Action Plan.	Dropped from Updated Action Plan.
16	Increase the capacity of the Water Treatment Facility	Activity completed-Delete from Action Plan.	Dropped from Updated Action Plan.
17	Establish Fire Breaks in the Wildfire urban interface.	Activity completed-Delete from Action Plan.	Dropped from Updated Action Plan.
18	Safe rooms in schools.	No significant progress to date on this activity.	Continue to discuss with School

As part of the plan update process, this chapter identifies and updates specific high priority actions to achieve the mitigation goals previously stated in the plan update, the lead agency for each action item, an anticipated time schedule, estimated cost, and identification of funding sources. Once funding is sought, a detailed benefit/cost analysis will be done and will follow the requirements of the funding source.

The following table identifies which mitigation type project is associated with each hazard.

<u>Hazard Type</u>	<u>Action Plan Activity Number</u>
Floods	1, 2, 3, 4, 5, 6, 9, 10, 14
Tornados	1, 2, 4, 5, 6, 7, 8, 10, 12, 14

High Winds	2, 4, 5, 6, 10, 12, 14, 17, 18
Lightning	2, 4, 5, 6, 10, 12, 13, 14
Hailstorms	2, 4, 5, 6, 10, 12, 14, 17, 18
Severe Winter Storms	2, 4, 5, 6, 10, 14
Extreme Heat	2, 4, 5, 6, 10, 14 17, 18, 19
Expansive Soils	4, 5, 6, 10, 17
Drought	4, 5, 6, 10, 15
Wildfires	2, 4 5, 6, 10, 14, 15, 20
Earthquakes	2, 4, 5, 6, 10, 14, 17
Hazardous Materials Events	2, 4, 5, 6, 10, 11, 14, 15, 16
Dam Break	1, 2, 3, 4, 5 6, 10, 14

**2014 ACTION PLAN ITEMS:**

**1. Upgrade the Skiatook outdoor warning system.**

Hazard Type: Tornados, Floods, Dam Break

Action Plan Project Type: Mitigation

Lead: City Fire Department

Time Schedule: FY 2014-18

Estimated Cost: \$175,000 (includes developer participation)

Source of Funding: Local

Work Product/Expected Outcome: The work product is to update and implement an outdoor warning system location analysis (3-6 estimated locations within the community) and to require new developments to site future siren locations as part of the development process. The purpose of this activity is to maintain coverage as growth occurs and may include the implementation of a per acre development fee to cover this activity. The expected outcome is to provide an outdoor warning system that adequately covers all parts of the City.

**2. Explore the option to upgrade the City’s mass emergency oriented warning system using digital communications and automation technology as part of a multi layered notification approach to cover city wide emergencies.**

Hazard Type: Floods, Tornados, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Mitigation

Lead: City Fire Department

Time Schedule: FY 2014, and ongoing

Estimated Cost: Unknown at this time

Source of Funding: Local

Work Product/Expected Outcome: The work product is to support and participate in a digitally based notification system that can accomplish immediate city-wide emergency notification. The expected outcome is achieving better coverage through a multi-layered “all hazards” notification capability in the event of an emergency.

**3. Acquire floodplain properties where acquisition is the most cost effective mitigation measure.**

Hazard Type: Floods, Dam Break

Action Plan Project Type: Mitigation

Lead: City Community Development Department

Time Schedule: FY2014, and ongoing

Estimated Cost: Unknown at this time

Source of Funding: FEMA/Local (75% federal/25% local)

Work Product/Expected Outcome: The work product is to acquire and clear repetitive loss properties as an on-going activity when funds are available. The City has identified six (6) repetitive loss structures and has acquired twenty three (23) structures over the past several years. The City will continue to work with property owners to acquire and remove these structures from the regulated floodplain. The expected outcome is to reduce the number of structures vulnerable to a flood hazard.

**4. Build community partnerships involving local government leaders, civic, business and volunteer groups to work together for a safer community.**

Hazard Type: Floods, Tornados, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Expansive Soils, Drought, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Education

Lead: City Manager, Fire Department/Community Development Department/Police Department/Public Works Department

Time Schedule: FY 2014 and ongoing

Estimated Cost: Unknown at this time

Source of Funding: Local / FEMA Grant

Work Product/Expected Outcome: The work product is to will be updating all mutual aid agreement as outlined in the City's EOP, develop a working group among partnership members so that the group is established before it is needed, identify a designated City representative to brief the media in the event of a hazard event, and build a hazard response information link on the City's website. The expected outcome will be to efficiently and effectively coordinate a response to a hazard event and to disseminate information to the public following a hazard event.

**5. Develop and implement public education/information programs, including an annual Safety Fair, designed to educate the public on a variety of hazard mitigation issues.**

Hazard Type: Floods, Tornados, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Expansive Soils, Drought, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Education

Lead: City Manager and Fire Department/Chamber of Commerce

Time Schedule: FY 2014 and ongoing

Estimated Cost: \$5,000

Source of Funding: Local

Work Product/Expected Outcome: The work product will be to utilize the existing City website as an information resource, organize community events and provide education materials on specific mitigation activities to citizens within the community. The expected outcome will be more mitigation activities implemented by community residents.

**6. Promote certification of local emergency shelters within the community for use by the Red Cross in emergency situations requiring shelter. Support legislative initiatives that reduce liability in sheltering situations.**

Hazard Type: Floods, Tornados, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Expansive Soils, Drought, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Training

Lead: City Fire Department, Red Cross

Time Schedule: FY 2014, and ongoing

Estimated Cost: varies by location and scope of project due to certification

Source of Funding: Local

Work Product/Expected Outcome: The work product is to identify appropriate facilities that can become temporary shelters in the event of an emergency that causes evacuation or relocation of residents. The expected outcome is that sufficient certified shelters will be staffed by Red Cross staff during emergencies.

**7. Promote individual safe rooms within the community.**

Hazard Type: Tornado

Action Plan Project Type: Education

Lead: City Fire Department

Time Schedule: Ongoing

Estimated Cost: \$5,000 (estimate for promotional materials)

Source of Funding: Local/Grants

Work Product/Expected Outcome: Develop public information program to foster ‘shelter-in-place’ practices and to promote participation in programs such as the SoonerSafe – Safe Room Rebate Program administered by the Oklahoma Department of Emergency Management. The expected outcome is to increase the number of residential safe rooms within the community by facilitating participation in FEMA and State rebate programs when they become available.

**8. Provide safe rooms in the police and fire stations to protect the community’s first responders.**

Hazard Type: Tornado

Action Plan Project Type: Mitigation

Lead: City Police and Fire Departments

Time Schedule: Ongoing

Estimated Cost: Unknown at this time

Source of Funding: Local/Grants

Work Product/Expected Outcome: The work product is to construct safe rooms in existing police and fire facilities. The expected outcome is to provide increased protection of the community’s first responders during tornado events.

**9. Develop a Dam Break Inundation Map which would include the location of critical facilities and other buildings vulnerable to flooding from a failure of the Skiatook Dam.**

Hazard Type: Flooding

Action Plan Project Type: Mitigation

Lead: City Community Development Department

Time Schedule: FY 2014 and ongoing

Estimated Cost: Unknown at this time

Source of Funding: Local / FEMA Grant

Work Product/Expected Outcome: The work product is to assess the potential impact of a dam break event at the Skiatook Lake Dam. The expected outcome is the identification of vulnerable structures and populations within the community and to facilitate planning efforts to identify response measures.

**10. Develop a coordinating network of Public Information staff, i.e., City, Schools, County, Tribal etc. by meeting on a regular basis to maintain lines of communication to effectively respond to emergency events.**

Hazard Type: Floods, Tornados, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Expansive Soils, Drought, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Education

Lead: City Manager and Fire Department

Time Schedule: FY 2014 and ongoing

Estimated Cost: Force account only

Source of Funding: Local

Work Product/Expected Outcome: The work product is to develop a localized network of agency representatives that are aware of operational changes in other agencies. The expected outcome is to have effective communication and situational awareness of other local agencies.

**11. Develop a truck by-pass around the City to reduce the possibility of a hazardous material incident along the primary arterial route (Highway 20) through the City.**

Hazard Type: Hazardous Materials

Action Plan Project Type: Mitigation

Lead: City Police and Fire Departments

Time Schedule: FY 2014-2017

Estimated Cost: Undetermined at this time.

Source of Funding: Local/Grants

Work Product/Expected Outcome: The work product will be the creation of a designated and enforceable truck by-pass route around the City. The expected outcome will be a reduction of hazardous material incidents in congested areas.

**12. Install electric utility lines underground in new development areas.**

Hazard Type: Tornado, High Winds, Severe Winter Storms

Action Plan Project Type: Mitigation

Lead: City Electric Department and City Community Development

Time Schedule: FY2014-2017

Estimated Cost: Unknown

Source of Funding: Local / Utility

Work Product/Expected Outcome: The work product will be the implementation of existing development regulations and planning for future developments within the community. The expected outcome will be an increased percentage of underground utility lines within the community.

**13. Purchase and install a THOR Guard lightning Detection systems for existing sports facilities within the community.**

Hazard Type: Lightning

Action Plan Project Type: Mitigation

Lead: City Fire Department

Time Schedule: FY2012-2017

Estimated Cost: Unknown at this time

Source of Funding: Local / Grants

Work Product/Expected Outcome: The work product is to develop a warning system to alert public that Lightning is occurring in the immediate area. The expected outcome is to increase public safety at community sports events.

**14. Develop a coordinated training strategy for teaching public employees and other community groups the symptoms of common, life threatening emergencies, heat disorders and how to give CPR and first aid by providing additional classes.**

Hazard Type: Floods, Tornadoes, High Winds, Lightning, Hail Storms, Severe Winter Storms, Extreme Heat, Wild Fires, Earthquakes, Hazardous Materials Events, Dam Break

Action Plan Project Type: Education

Lead: City Fire Department and Red Cross

Time Schedule: FY2014, and ongoing

Estimated Cost: \$1,000 (estimated annually)

Source of Funding: Local

Work Product/Expected Outcome: The work product is to provide adequate training and response to life threatening emergencies by public employees and community groups. The expected outcome is a more effective response to emergency situations.

**15. Replace/continue replacing inadequately sized water lines.**

Hazard Type: Wildfires, Drought

Action Plan Project Type: Maintenance

Lead: City Community Development/Public Works Department

Time Schedule: FY2014-2017

Estimated Cost: undetermined at this time

Source of Funding: Local

Work Product/Expected Outcome: The work product will be to evaluate and increase water distribution capacity throughout the City. Also, new developments will be expected to provide adequately sized water lines as part of the development process. The expected outcome is to provide adequate volume and pressure to meet ISO standards throughout the community.

**16. Review and update contingency planning for transportation related hazardous materials incidents on State Highway 20.**

Hazard Type: Hazardous Materials

Action Plan Project Type: Preparedness

Lead: City Fire Department

Time Schedule: FY2014, and annually

Estimated Cost: City force account contribution

Source of Funding: Local

Work Product/Expected Outcome: Work product is the review and update of incident plans for emergency response personnel. The expected outcome is to allow City personnel and personnel who respond to City emergencies to properly identify potentially hazardous situations, assess the magnitude and monitor the event until hazardous material response contractors arrive. Also include a public information campaign to educate the general public on how to evacuate from the immediate incident area, if necessary.

**17. Adopt appropriate building codes for adequacy for tornados, high winds, hailstorms expansive soils and earthquakes.**

Hazard Type: Tornados, High Winds, Hailstorms, Expansive Soils. Earthquakes

Action Plan Project Type: Mitigation

Lead: City Community Development

Time Schedule: FY 2014, and annually

Estimated Cost: minimal (to include staff research time and publication costs)

Source of Funding: Local

Work Product/Expected Outcome: The work product is to develop a comparison summary between the current edition of the IBC and the next published edition, anticipated to be available in 2014 and to adopt the new IBC, if necessary. The expected outcome is to update the City's codes to include the latest technical updates that the City considers to be appropriate for the City of Skiatook.

**18. Window Laminates – Install protective film or break resistant glass on exposed windows in all existing City facilities.**

Hazard Type: High Wind, Extreme Heat, Hailstorms

Action Plan Project Type: Mitigation

Lead: City Manager and Community Development Department

Time Schedule: FY2014-2017

Estimated Cost: Undetermined at this time.

Source of Funding: Local/Grants

Work Product/Expected Outcome: The work product will be to increase protection and safety of personnel and property in existing City facilities. The expected outcome will be a reduction of risk for penetration from wind, rain and hail in City facilities.

**19. Establish cooling centers within the community for heat emergencies.**

Hazard Type: Extreme Heat

Action Plan Project Type: Mitigation

Lead: City Fire Department, Red Cross

Time Schedule: FY2014, and annually

Estimated Cost: Unknown at this time

Source of Funding: Local

Work Product/Expected Outcome: The work product is to identify and to develop working agreements for the use of public spaces for use in heat emergencies. The expected outcome is educating the public as to the availability and location of cooling centers.

**20. Continued participation in the Oklahoma Red Flag Fire Alert Program/OK-Fire Website.**

Hazard Type: Wildfires

Action Plan Project Type: Education

Lead: City Fire Department

Time Schedule: FY2012 and ongoing

Estimated Cost: City Public Information

Source of Funding: Local

Work Product/Expected Outcome: The work product is to utilize the City Website and other media resources to keep the public informed about wildfire conditions. The expected outcome is to reduce the incidence of wildfires within the community.