# MITIGATION STRATEGY

[4 MITIGATION STRATEGY 4.1](#_Toc65751615)

[4.1 Goals 4.1](#_Toc65751616)

[4.2 Identification and Analysis of Mitigation Actions 4.2](#_Toc65751617)

[4.3 Implementation of Mitigation Actions 4.6](#_Toc65751618)

**44 CFR Requirement §201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction’s blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.**

This section presents the mitigation strategy developed by the Mitigation Planning Committee (MPC). The mitigation strategy was developed through a collaborative group process. The process included review of general goal statements to guide the jurisdictions in lessening disaster impacts as well as specific mitigation actions to directly reduce vulnerability to hazards and losses. The following definitions are taken from FEMA’s *Local Hazard Mitigation Review Guide (October 1, 2012)*.

* **Mitigation Goals** are general guidelines that explain what you want to achieve. Goals are long‐term policy statements and global visions that support the mitigation strategy. The goals address the risk of hazards identified in the plan.
* **Mitigation Actions** are specific actions, projects, activities, or processes taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan’s mission and goals.

## Goals

**44 CFR Requirement §201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.**

This planning effort is an update to Phelps County’s existing hazard mitigation plan originally approved by FEMA on May 23, 2005 and updated and approved by FEMA on June 25, 2011 and five years later on August 11, 2016. Therefore, the goals from the updated 2016 Phelps County Hazard Mitigation Planwere reviewed to see if they were still valid, feasible, practical, and applicable to the defined hazard impacts. The MPC conducted a discussion session during their first meeting to review and update the plan goals. To ensure that the goals developed for this update were comprehensive and supported State goals, the 2018 State Hazard Mitigation Plan goals were reviewed. As the existing goals were broad, still applicable, and supported the 2018 State Hazard Mitigation Plan goals, the MPC saw no reason to make any changes. The Phelps County goals are as follows:

**Goal 1:** Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities.

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Goal 6:** Secure resources for investment in hazard mitigation.

## Identification and Analysis of Mitigation Actions

**44 CFR Requirement §201.6(c)(3)(ii): The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.**

During the first MPC meeting, the committee discussed what needed to be updated in the risk assessment. Changes in risk since adoption of the previously approved plan were discussed. Since the last update, there have been no deaths due to natural hazard events. Action items were reviewed and suggestions made for changes to address the changes in risk. Discussions from the actions from the previous plan included completed actions, on-going actions, and actions upon which progress had not been made. The MPC discussed SEMA’s identified funding priorities and the types of mitigation actions generally recognized by FEMA.

The MPC determined to include problem statements in the plan update at the end of each hazard profile, which had not been done in the previously approved plan. The problem statements summarize the risk to the planning area presented by each hazard, and include possible methods to reduce that risk.

The focus of Meeting #2 was to review, prioritize and update the mitigation strategy. The MPC reviewed the list of actions proposed in the previous mitigation plan and proposed additional mitigation actions. Facilitators also provided suggestions for actions based on what some of the surrounding counties had included in their plans. Participants were also encouraged to refer to the current State Plan and provided a link to the FEMA’s publication, *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).* This document was developed by FEMA as a resource for identification of a range of potential mitigation actions for reducing risk to natural hazards and disasters.

During the review of the plan document, MPC members were encouraged to review the details of the risk assessment vulnerability analysis specific to their jurisdiction.

The MPC reviewed the actions from the previously approved plan for progress made since the plan had been adopted. Copies of the list of actions for each jurisdiction were provided to MPC members at planning meetings and were emailed out to all members. Action items were reviewed and the MPC provided updates on the status of action items during both planning meetings and the meeting with the road and bridge department. Each action item was reviewed and assigned one of the following:

* Completed, with a description of the progress,

• Not Started/Continue in Plan Update, with a discussion of the reasons for lack of progress,

• In Progress/Continue in Plan Update, with a description of the progress made to date or

• Deleted, with a discussion of the reasons for deletion.

Based on the status updates, there were 11 completed actions, five deleted actions, 11 actions that were combined with other, similar actions, and 27 continuing actions.

**Table 4.1** provides a summary of the completed and deleted actions from the previous plan.

1. Summary of Completed and Deleted Actions from the Previous Plan

|  |  |
| --- | --- |
| **Completed Actions** | **Completion Details (date, amount, funding source)** |
| 1.1.2 Promote development of emergency plans by businesses and public entities. | Public entities in the county have emergency plans in place. The MPC did not feel that promoting the development of emergency plans to business entities met the SMART criteria and was not a high priority and chose to remove that part of the action item from the plan. |
| 1.1.5 Educate school staff on natural hazards and make sure all staff are familiar with school emergency plan including evacuation and safety procedures. | All school districts agree that this is currently implemented and is embedded in district’s policy and procedures and requirements from the Missouri Department of Elementary and Secondary Education. |
| 1.1.6 Schools need to continue to conduct emergency preparedness exercises on a regular basis. | All school districts agree that this is currently implemented and is embedded in district’s policy and procedures and requirements from the Missouri Department of Elementary and Secondary Education. |
| 1.1.7 Regularly review and update school emergency plans. | All school districts agree that this is currently implemented and is embedded in district’s policy and procedures and requirements from the Missouri Department of Elementary and Secondary Education. |
| 1.2.3 Continue to partner with local radio stations to ensure that appropriate warning of impending disasters is provided to all residents of impending disasters. | County and city EMDs state that this has been implemented and is embedded in policy and procedure. |
| 3.1.1 Distribute SEMA brochures on natural disasters, preparedness and NFIP at public facilities and events. | Local emergency response agencies stated that this action item has been implemented and is embedded in policy and procedure. |
| 3.1.3 Encourage and promote weather spotter classes throughout the county. | Local EMDs stated that this action item has been implemented and is embedded in policy and procedure. Classes are held regularly. |
| 4.1.2 Continue to encourage joint training (and drills) between agencies, public and private entities (including schools/businesses). | Joint drills and trainings are regularly held in the county and cities. Rolla Fire & Rescue regularly does drills working with multiple agencies including Missouri University of Science & Technology, state agencies, etc. Region I SEMA conducts joint exercises annually. The Pipeline Association of Missouri also does joint exercises and trainings in the county and region. This action item has been completed and is embedded in policy and procedures. |
| **Completed Actions** | **Completion Details (date, amount, funding source)** |
| 4.1.4 Maintain updated mutual aid agreements between emergency response agencies inside and outside the region. | This action item has been completed. Fire mutual aid agreements are in place throughout the state. Emergency Medical Services and the hospitals also have mutual aid agreements in place. Mutual aid agreements are also in place between cities for utility emergency assistance and with Missouri Public Utility Association for all utilities. |
| 5.1.4 Coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. | EMDs and emergency response agencies stated that this had been completed. |
| 6.3.1 Prioritize mitigation projects, based on cost-effectiveness and starting with those sites facing the greatest threat to life, health and property. | The MPC agreed that this was accomplished through the hazard mitigation planning process and documented in the plan. |
| **Deleted Actions** | **Reason for Deletion** |
| 1.1.3 Provide information to citizens on individual mitigation activities such as building personal shelters and assuring that propane tanks are appropriately tied down. | Combined with 1.1.1. |
| 1.1.4 Continue to educate residents about precautions that should be taken during threats of natural disasters such as heat waves and severe weather. | Combined with 1.1.1. |
| 1.2.4 & 2.3.3 Monitor developments in data availability concerning the impact of disasters such as dam failure, tornados, sinkholes, land subsidence and wildfire upon Phelps County and all jurisdictions through local, state and federal agencies for use in hazard mitigation planning. | Identical action items that have been removed due to SEMA reviewer stating that they do not meet SMART criteria. These action items were added at the request of SEMA/FEMA during a previous update. The MPC also determined these were not high priorities. |
| 2.1.1 Continue to encourage a self-inspection program at critical facilities to assure that building infrastructure is earthquake and tornado resistant. | Upon review, due to not meeting the SMART criteria and falling to a low priority – this action item was deleted. |
| 2.1.2 Continue to encourage business to develop and implement emergency plans. | The MPC determined that promoting the development of emergency plans to business entities did not meet the SMART criteria, was not a high priority and chose to remove the action item from the plan. |
| 2.3.1 Encourage minimum standards for building codes in all cities. | The MPC determined that this action item did not meet the SMART criteria, was not a high priority and chose to remove it from the plan. |
| 2.3.2 Encourage local governments to develop and implement regulations for securing hazardous materials tanks and mobile homes to reduce hazards during storms and flooding. | The MPC determined that this action item did not meet the SMART criteria, was not a high priority and chose to remove the action item from the plan. |
| **Deleted Actions** | **Reason for Deletion** |
| 3.1.2 Distribute regular press releases from county and city EMD offices concerning hazards, where they strike, frequency, preparedness and how to mitigate. | Combined with 1.1.1. |
| 3.2.1 Encourage local residents to purchase weather radios through press releases and brochures | Combined with 1.1.1. |
| 3.3.2 Distribute press releases by cities/county regarding adopted mitigation measures to keep public abreast of changes and/or new regulations. | Combined with 1.1.1. |
| 4.2.1 Encourage meetings between EMD, city/county and SEMA to familiarize officials with mitigation planning ad implementation and budgeting for mitigation projects. | Duplicate of 3.2.2. |
| 4.2.2 Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. | Combined with 3.3.1. |
| 5.1.2 Encourage communities to budget for enhanced warning systems. | Combined with 1.2.1. |
| 5.1.3 Encourage all communities to develop stormwater management plans in all new development – both residential and commercial properties. | Combined with 2.2.2. |
| 5.2.3 Encourage the construction of storm shelters, especially tornado safe rooms near schools and large employment centers that currently do not have access to safe rooms. | Combined with 1.3.5. |
| 6.1.1 Work with SEMA Region I coordinator to learn about new mitigation funding opportunities. | The MPC agreed that this was being accomplished through other agencies and was no longer a high priority. |
| 6.2.2 Implement public awareness program about the benefits of hazard mitigation projects, both public and private through press releases and brochures. | Combined with 1.1.1. |

Source: Previously approved County Hazard Mitigation Plan; MPC committee; data collection questionnaires

## Implementation of Mitigation Actions

**44 CFR Requirement §201.6(c)(3)(ii): The mitigation strategy shall include an action strategy describing how the actions identified in paragraph (c)(2)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefits review of the proposed projects and their associated costs.**

Jurisdictional MPC members were encouraged to meet with others in their community to discuss the actions to be included in the updated mitigation strategy. Throughout the MPC consideration and discussion, emphasis was placed on the importance of a benefit-cost analysis in determining project priority. The Disaster Mitigation Act requires benefit-cost review as the primary method by which mitigation projects should be prioritized. The MPC decided to pursue implementation according to when and where damage occurs, available funding, political will, jurisdictional priority, and priorities identified in the Missouri State Hazard Mitigation Plan. The benefit/cost review at the planning stage primarily consisted of a qualitative analysis, and was not the detailed process required grant funding application. For each action, the plan sets forth a narrative describing the types of benefits that could be realized from action implementation. The cost was estimated as closely as possible, with further refinement to be supplied as project development occurs.

FEMA’s STAPLEE methodology was used to assess the costs and benefits, overall feasibility of mitigation actions, and other issues impacting project. During the prioritization process, the MPC worked together to review and assign scores. The process posed questions based on the STAPLEE elements as well as the potential mitigation effectiveness of each action. Scores were based on the responses to the questions as follows:

Definitely yes = 3 points

Maybe yes = 2 points

Probably no = 1

Definitely no = 0

The following questions were asked for each proposed action.

S: Is the action socially acceptable?

T: Is the action technically feasible and potentially successful?

A: Does the jurisdiction have the administrative capability to successfully implement this action?

P: Is the action politically acceptable?

L: Does the jurisdiction have the legal authority to implement the action?

E: Is the action economically beneficial?

E: Will the project have an environmental impact that is either beneficial or neutral? (score “3” if positive and “2” if neutral)

Will the implemented action result in lives saved?

Will the implanted action result in a reduction of disaster damage?

In addition to the STAPLEE process, each action item was also reviewed for Benefit/Cost. These two aspects of the prioritization process were scored as follows:

Benefit – two (2) points were added for each of the following avoided damages (8 points maximum = highest benefit)

* Injuries and/or casualties
* Property damages
* Loss-of-function/displacement impacts
* Emergency management costs/community costs

Cost – points were subtracted according to the following cost scale (-5 points maximum = highest cost)

* (-1) = Minimal – little cost to the jurisdiction involved
* (-3) = Moderate – definite cost involved but could likely be worked into operating budget
* (-5) = Significant – cost above and beyond most operating budgets; would require extra appropriations to finance or to meet matching funds for a grant

Note: For the Benefit/Cost Review, the benefit and cost of actions which used the word “encourage” were evaluated as if the action or strategy being encouraged was actually to be carried out.

In addition, the group considered the cost of mitigation versus the long-term savings in relation to potential lives saved and property damage avoided.

Total Score – The scores for the STAPLEE Review and Benefit/Cost Review were added to determine a Total Score for each action.

Priority Scale – To achieve an understanding of how a Total Score might be translated into a Priority Rating, a sample matrix was filled out for the possible range of ratings an action might receive on both the STAPLEE and Benefit/Cost Review. The possible ratings tested ranged between:

* A hypothetical action with “Half probably NO and half maybe YES” answers on STAPLEE (i.e. poor STAPLEE score) and Low Benefit/High Cost: Total Score = 7
* A hypothetical action with “All definitely YES” on STAPLEE and High Benefit/Little Cost: Total Score = 28

An inspection of the possible scores within this range led to the development of the following Priority Scale based on the Total Score in the STAPLEE- Benefit/Cost Review process:

20 – 28 points = High Priority

14-19 points = Medium Priority

13 points and below = Low Priority

In addition to the STAPLEE and Benefit/Cost analysis, the committee was also asked to consider **SMART** – **S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime-bound, per FEMA. All action items were reviewed with this criteria in mind. The results of the STAPLEE process and Benefit/Cost analysis were then mailed out to all MPC members for feedback and consensus.

The final scores are listed below in the analysis of each action. Correspondence regarding the STAPLEE process is included in Appendix C: A spreadsheet with the action items and final scores is illustrated in Table 4.3.

**Jurisdictional Floodplain Management Programs**

Phelps County and the cities of Doolittle, Edgar Springs, Newburg, Rolla and St. James are members of the NFIP and regulate development in the floodplain by reviewing permit applications for all development including new and existing structures. Elevation certificates are required for all new construction, and existing structures with 50% or more damage following a flood are required to elevate. Floodplain maps are available in hard copy at the city halls of each community and the county’s flood maps can be obtained from the floodplain coordinator – MRPC. Furthermore floodplain maps can be found online through FEMA’s website <https://msc.fema.gov/portal>.

1. Jurisdictional Floodplain Ordinance Adoption Date

| **Community Name** | **Ordinance Adoption Date** |
| --- | --- |
| Phelps County | 02/01/1987 Revised 03/17/16 |
| Doolittle | 01/08/2008 |
| Edgar Springs | 08/24/84 |
| Newburg | 04/03/1987 |
| Rolla | 09/30/77 Revised 04/01/2002 |
| St. James | 07/03/85 Revised 03/14/2016 |

Source: FEMA’s Community Status Book Report[[1]](#footnote-1); NSFHA (SEMA)

| Table 4.3 Prioritization of Mitigation Actions | | **3 = Def YES 1 = Prob NO**  **2 = Maybe YES 0 = Def NO** | | | | | | | | |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Action No.** | **Mitigation Actions** | **S** | **T** | | **A** | **P** | **L** | **E** | **E** | **STAPLEE Total** | **Losses Avoided**  **(2 pts. Each)** | **Benefit** | **Cost** | **B/C Total** | **Total** | **Priority** |
| 1.1.1 | Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc. | 3 | 3 | | 3 | 3 | 3 | 2 | 3 | 20 | IC, PD, LF, EMCC | 8 | -1 | 7 | 27 | H |
| 1.1.8 | Encourage the construction of tornado safe rooms in every school that does not have one. | 3 | 3 | | 3 | 3 | 3 | 2 | 3 | 20 | IC, EMCC | 3 | -3 | 0 | 20 | H |
| 1.2.1 | Continue to encourage cities to budget for and obtain early warning systems and improved communications systems. | 3 | 3 | | 2 | 3 | 3 | 1 | 3 | 18 | IC, PD, LF, EMCC | 8 | -3 | 5 | 23 | H |
| 1.2.2 | Purchase weather radios for those schools that do not have them to insure advanced warning about threatening weather. | 3 | 3 | | 3 | 3 | 3 | 3 | 3 | 21 | IC ,LF, EMCC | 6 | -1 | 5 | 26 | H |
| 1.3.1 | Continue to implement tree trimming and dead tree removal programs by utility companies and local government | 3 | 3 | | 3 | 3 | 3 | 2 | 2 | 19 | IC, PD, LF, EMCC | 8 | -3 | 5 | 24 | H |
| 1.3.2 | Continue to examine road and bridge upgrades to improve drainage and reduce flooding and the risk to residents and property. | 3 | 3 | | 2 | 3 | 3 | 2 | 2 | 18 | IC, PD, LF, EMCC | 8 | -1 | 7 | 25 | H |
| 1.3.3 | Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters. | 3 | 3 | | 3 | 3 | 3 | 3 | 3 | 21 | IC, LF, EMCC | 6 | -1 | 5 | 26 | H |
| 1.3.4 | Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities. | 3 | | 2 | 2 | 3 | 3 | 2 | 3 | 18 | IC, EMCC | 4 | -1 | 3 | 21 | H |
| 1.3.5 | Continue to work to increase availability (if necessary construction) of certified storm shelters for individual families and large groups, including near large employment centers and schools. | 3 | | 3 | 3 | 3 | 3 | 1 | 3 | 19 | IC, EMCC | 4 | -5 | -1 | 18 | M |
| Table 4.3 Prioritization of Mitigation Actions | | **3 = Def YES 1 = Prob NO**  **2 = Maybe YES 0 = Def NO** | | | | | | | | |  | | | | | |
| **Action No.** | **Mitigation Actions** | **S** | | **T** | **A** | **P** | **L** | **E** | **E** | **STAPLEE Total** | **Losses Avoided**  **(2 pts. Each)** | **Benefit** | **Cost** | **B/C Total** | **Total** | **Priority** |
| 2.1.3 | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. | 3 | | 3 | 3 | 3 | 3 | 2 | 3 | 20 | LF, EMCC | 4 | -3 | 1 | 21 | H |
| 2.2.1 | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. | 2 | | 3 | 3 | 2 | 3 | 2 | 3 | 18 | IC, PD, LF, EMCC | 8 | -1 | 7 | 25 | H |
| 2.2.2 | Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development. | 3 | | 2 | 2 | 2 | 3 | 2 | 3 | 18 | IC, PD, LF, EMCC | 8 | -3 | 5 | 23 | H |
| 2.2.3 | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. | 2 | | 3 | 3 | 2 | 3 | 2 | 3 | 18 | IC, PD, LF, EMCC | 8 | -3 | 5 | 23 | H |
| 2.2.4 | Continue to look at ways to reduce vulnerabilities in the Beaver Creek area and along the Gasconade River including elevations and buyouts | 2 | | 2 | 2 | 2 | 3 | 2 | 3 | 15 | IC, PD, EMCC | 6 | -5 | 1 | 16 | M |
| 3.1.4 | Educate staff and parents on school safety protocols. | 3 | | 3 | 3 | 3 | 3 | 3 | 3 | 21 | IC, LF, EMCC | 6 | -1 | 5 | 26 | H |
| 3.2.2 | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. | 3 | | 3 | 3 | 2 | 3 | 2 | 3 | 19 | IC, PD, LF, EMCC | 8 | -1 | 7 | 26 | H |
| 3.3.1 | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. | 3 | | 2 | 2 | 2 | 3 | 1 | 3 | 16 | IC, PD, LF, EMCC | 8 | -3 | 5 | 21 | H |
| 3.4.3 | Encourage the development of a county-wide CERT and/or VOAD program and educate the public on how they can benefit from these types of programs. | 3 | | 3 | 3 | 3 | 3 | 3 | 3 | 21 | IC, PD, LF, EMCC | 8 | -1 | 7 | 28 | H |
| 4.1.1 | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning | 3 | | 3 | 3 | 3 | 3 | 2 | 3 | 20 | IC, PD, LF, EMCC | 8 | -1 | 7 | 27 | H |
| Table 4.3 Prioritization of Mitigation Actions | | **3 = Def YES 1 = Prob NO**  **2 = Maybe YES 0 = Def NO** | | | | | | | | |  | | | | | |
| **Action No.** | **Mitigation Actions** | **S** | | **T** | **A** | **P** | **L** | **E** | **E** | **STAPLEE Total** | **Loss Avoided**  **(2 pts. Each)** | **Benefit** | **Cost** | **B/C Total** | **Total** | **Priority** |
| 4.1.3 | Pool different agency resources to achieve widespread mitigation planning results. | 3 | | 2 | 2 | 2 | 3 | 2 | 3 | 17 | IC, PD, LF, EMCC | 8 | -1 | 7 | 24 | H |
| 5.1.1 | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. | 3 | | 3 | 3 | 3 | 3 | 3 | 3 | 21 | IC, PD, LF, EMCC | 8 | -1 | 7 | 29 | H |
| 5.2.1 | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. | 3 | | 2 | 2 | 2 | 3 | 2 | 3 | 17 | PD, EMCC | 4 | -3 | 1 | 18 | M |
| 5.2.2 | Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space. | 2 | | 2 | 2 | 1 | 2 | 1 | 3 | 13 | PD, EMCC | 4 | -1 | 3 | 16 | M |
| 6.1.2 | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met | 3 | | 2 | 2 | 2 | 3 | 2 | 3 | 17 | IC, PD, LF, EMCC | 8 | -1 | 7 | 24 | H |
| 6.1.3 | Work with state/local/federal agencies to include mitigation in all economic and community development projects. | 3 | | 2 | 2 | 2 | 3 | 2 | 2 | 16 | IC, PD, LF, EMCC | 8 | -1 | 7 | 23 | H |
| 6.1.4 | Encourage local jurisdictions to budget for mitigation projects. | 3 | | 3 | 3 | 3 | 3 | 2 | 3 | 20 | IC, PD, LF, EMCC | 8 | -5 | 3 | 23 | H |
| 6.2.1 | Encourage cities and counties to implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. | 2 | | 1 | 1 | 1 | 2 | 2 | 2 | 11 | IC, PD, LF, EMCC | 8 | -5 | 3 | 14 | M |

**Phelps County**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: purchasing weather radios, benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | County EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) – includes Chapter 8 – Economic Recovery and Resiliency Strategy |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies, the Health Dept. and the county EMD promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the county. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in Phelps County. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | An outdoor warning siren has been installed in Jerome – an unincorporated area of Phelps County. In addition, the county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Phelps County has an aggressive tree trimming program in place along county-maintained roadways and contracts for the service. |

**Action 1.3.2:** Continue to examine road and bridge upgrades to improve drainage and reduce flooding and the risk to residents and property.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with flooding and inadequate road/bridge structures and impacts on residents and their property. |
| **Hazard(s) Addressed:** | Flood, Earthquake |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.2 |
| **Name of Action or Project:** | Improve drainage and reduce flooding through road and bridge improvements. |
| **Action or Project Description:** | Continue to examine road and bridge upgrades to improve drainage and reduce flooding and the risk to residents and property. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $12,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission, local planners |
| **Action/Project Priority:** | 25 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, LEOP, floodplain ordinance, road and bridge budget, county road and bridge specifications |
| **Progress Report** | |
| **Action Status** | Continuing - in progress |
| **Report of Progress** | Phelps County has completed the following projects in the past five years to reduce impacts from flooding: CR 3040 low water crossing – the county is moving forward with plans to replace the culverts to reduce flooding; flood prone bridge on CR 3330 was closed to traffic; and flood prone bridge on CR7530 was closed to traffic. Whenever possible, the county sizes up culverts when replacing them. The county also has specifications for roads and bridges if subdivisions are constructed and the developer wants the county to take over maintenance. The county maintains a list of high priority projects that will be completed as funding becomes available. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOPs |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Shelters have been established in each community but as needs change it may be necessary to adjust the list of shelters or increase the number of facilities that can be used for sheltering. |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Phelps Health, the county hospital, has MOUs in place with other hospitals. However, good data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | A FEMA certified tornado shelter has been constructed at the Phelps County R-III schools. Tacony Manufacturing in St. James has a certified tornado shelter designated for all occupants of the St. James Industrial Park. |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $100,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, County Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | The Phelps County Courthouse and Sheriff’s Department building have generators in place. The Phelps Health county hospital also has generators in place. |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager/coordinator, County Commission |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, economic development plan, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Information, brochures, etc. on floodplain development and the NFIP are available through the floodplain coordinator and periodically supplied to the courthouse for distribution. Phelps County also has floodplain information available on-line. A series of three press releases on floodplain management are distributed to area news media annually. This a program that requires on-going activity as people move in and out of the county/cities. The county is currently going through the RiskMap process. As new floodplain maps are finalized, the county will be contacting all the people affected by the floodplain map changes. |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, builder’s plans, transportation plans |
| **Progress Report** | |
| **Action Status** | Continuing - Not Started |
| **Report of Progress** | There has been no progress in this area in Phelps County. |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager/Coordinator, Phelps County Commission |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The county is a member of the NFIP and works to ensure compliance with the county floodplain management ordinance. Education/awareness materials are widely distributed to make the public aware of what is required. Damage assessment inspections are conducted following flood events and homeowners notified of the requirements. The program could benefit from additional inspections of floodplain areas and additional more focused education efforts with builders, insurers, banks and residents. |

**Action 2.2.4:** Continue to look at ways to reduce vulnerabilities in the Beaver Creek area and along the Gasconade River – including elevations and buyouts.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with flooding in flood prone areas such as Beaver Creek and Gasconade River |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.4 |
| **Name of Action or Project:** | Floodplain management compliance enforcement |
| **Action or Project Description:** | Continue to look at ways to reduce vulnerabilities in the Beaver Creek and Gasconade River areas including elevations and buyouts of flood prone properties. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, Floodplain Manager, County Commission |
| **Action/Project Priority:** | 16 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, and services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Phelps County has purchased four properties in the Jerome area on the Gasconade River and is still attempting to purchase an additional property if funding is available. Floodplain coordinator staff mail out letters and distribute press releases outlining floodplain ordinance requirements on an annual basis. Following flood events, floodplain management staff conduct damage assessments and provide brochures and information on floodplain ordinance requirements and potential grant programs that can help homeowners reach compliance. This is an on-going endeavor and could benefit from additional inspections of floodplain areas and additional education/awareness activities for builders and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. The Phelps County Road & Bridge Department has incorporated mitigation activities into their regular maintenance program. Mitigation actions are part of the county LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 3.4.3:** Encourage the development of a county-wide CERT and/or VOAD program and educate the public on how they can benefit from these types of programs.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of information on and need for CERT and/or COAD/VOAD programs to help communities prepare for and plan for disasters. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.4.3 |
| **Name of Action or Project:** | Promote the development of CERT, COAD and VOAD |
| **Action or Project Description:** | Encourage the development of a county-wide CERT and/or VOAD program and educate the public on how they can benefit from these types of programs. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $1,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | CERT trainings have been held in Phelps County at least once a year for the past five years. Phelps Health, the county hospital, has a CERT team in place. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission, County EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. When the Hwy 63 bridge over Beaver Creek was replaced, planning discussions included MoDOT, Phelps County, Missouri Dept. of Conservation, Missouri Department of Natural Resources and the Corps of Engineers. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission, Floodplain Manager/Coordinator |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. All jurisdictions reported that they are interested in finding ways to pool resources to accomplish mitigation projects. The county currently works with landowners to cost-share the installation of culverts. The city of Rolla, Phelps County, MoDOT, Federal Highway Administration all worked together to develop the incident by-pass route for I-44 and were able to secure a CDBG grant to fund the project. Rolla did the engineering, MoDOT made accommodations and FHA gave up right-of-way to get the project completed. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. The Phelps County Road & Bridge Dept. has incorporated mitigation activities into their regular maintenance program. Mitigation actions are part of the county LEOP. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission, County EMD, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – progress |
| **Report of Progress** | Phelps County is currently working on a floodplain buyout of properties in the Jerome and Sporthaven areas on the Gasconade River. Four properties have been purchased with potential to purchase one more. The entire project has been funded through state and federal grants. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Engineer, County Commission, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, County Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Phelps County’s policy is to try to incorporate upgrades into all road and bridge projects to reduce vulnerabilities. This is an activity that would benefit from raising awareness of mitigation concerns and remedies. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County Commission, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS). As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, County Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | County EMD, County Commission, Local Planners, County Engineers, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | In some situations the county will install a culvert if the individual property owner pays for the culvert in order to insure that installation is done correctly and the culvert is sized appropriately. This is a program that could benefit from more organized guidelines and focused efforts if additional funding could be secured. |

**Doolittle**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | City EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the city. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in Doolittle. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Doolittle has one outdoor warning siren. The county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone and is available to all residents of the county. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Public Works, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Doolittle does not have a city operated tree trimming program. The electric coop that provides power for the community does tree trimming as needed for power lines. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $80,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Public Works |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, City Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | The city of Doolittle has one portable generator. The Doolittle Fire Department has two portable generators and a fixed generator at the fire house. |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, CEDS, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - no progress |
| **Report of Progress** |  |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, regional transportation plan |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | The city of Doolittle has storm water ordinances in place but could benefit from reviewing and strengthening those ordinances. |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is a member of the NFIP and works to insure compliance with the city floodplain management ordinance. The ordinance requires a permit for any development in the floodplain. The program would benefit from more focused education efforts with builders, insurers, banks and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. The Phelps County Road & Bridge Department has incorporated mitigation activities into their regular maintenance program. Mitigation actions are part of the county LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, City EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. Doolittle reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Doolittle has not had any requests from property owners for a buyout. |

**Action 5.2.2:**  Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 16 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Doolittle does not currently have zoning or land use ordinances. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City Engineer, Mayor, Board of Aldermen, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, City Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city has not had any grant projects for roads and bridges in the past five years. This is an activity that would benefit from raising awareness of mitigation concerns and remedies. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS) and regional transportation plan. As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, City Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Doolittle |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Local Planners, City Engineer, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city does not currently have any cost-share programs in place. |

**Edgar Springs**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | City EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the city. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in Edgar Springs. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Edgar Springs has one outdoor warning siren. The county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone and is available to all residents of the county. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Public Works, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Edgar Springs does not have a city operated tree trimming program. The electric coop that provides power for the community does tree trimming as needed for power lines. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $80,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Public Works |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, City Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | The city of Edgar Springs has one fixed generator at the sewer plant. |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, CEDS, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - no progress |
| **Report of Progress** |  |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, regional transportation plan |
| **Progress Report** | |
| **Action Status** | Revised – no progress |
| **Report of Progress** |  |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is a member of the NFIP and works to insure compliance with the city floodplain management ordinance. The ordinance requires a permit for any development in the floodplain. The program would benefit from more focused education efforts with builders, insurers, banks and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the county LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, City EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. Edgar Springs reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Edgar Springs has not had any requests from property owners for a buyout. |

**Action 5.2.2:**  Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 16 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Edgar Springs does not currently have zoning or land use ordinances. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City Engineer, Mayor, Board of Aldermen, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, City Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city has not had any grant projects for roads and bridges in the past five years. This is an activity that would benefit from raising awareness of mitigation concerns and remedies. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS) and regional transportation plan. As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, City Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Edgar Springs |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Local Planners, City Engineer, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city does not currently have any cost-share programs in place. |

**Newburg**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | City EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the county. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in Newburg. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Newburg has two outdoor warning sirens. The county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone and is available to all residents of the county. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Public Works, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Newburg does not have a city operated tree trimming program. The electric coop that provides power for the community does tree trimming as needed for power lines. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $80,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Public Works |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, City Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – no progress |
| **Report of Progress** |  |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, CEDS, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - no progress |
| **Report of Progress** |  |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, regional transportation plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is a member of the NFIP and works to insure compliance with the city floodplain management ordinance. The ordinance requires a permit for any development in the floodplain. The program would benefit from more focused education efforts with builders, insurers, banks and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the county LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, City EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. Newburg indicated that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Newburg has not had any requests from property owners for a buyout. |

**Action 5.2.2:**  Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 16 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Newburg does not currently have zoning or land use ordinances. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City Engineer, Mayor, Board of Aldermen, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, City Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city has not had any grant projects for roads and bridges in the past five years. This is an activity that would benefit from raising awareness of mitigation concerns and remedies. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, Board of Aldermen, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS) and regional transportation plan. As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, City Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, Board of Aldermen, Local Planners, City Engineer, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing no progress |
| **Report of Progress** | The city does not currently have any cost-share programs in place. |

**Rolla**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | City EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the county. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in Rolla. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | Rolla has ten outdoor warning sirens. The county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone and is available to all residents of the county. Missouri University of Science and Technology used RAVE – a phone/text/email system. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Public Works, Mayor, City Council, Rolla Municipal Utilities. |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing– ongoing |
| **Report of Progress** | Rolla has an aggressive tree trimming and dead tree removal program in place. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The city EMD does have some shelters designated – mostly in local churches - but they are not FEMA certified for tornados. |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | Data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. The city does have a list of facilities with vulnerable populations. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** |  |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $80,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Public Works |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, City Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | Phelps Health Hospital has three fixed generators. Rolla city hall, Rolla Municipal Utilities, and Rolla Municipal Utilities Service Center all have generator backup. There are 17 additional fixed generators for critical infrastructure through out the city. The Centre, Fire Station 1 & 2, Rolla Police Department, and Cedar Street Baptist Church (shelter) all have generators. |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager, Mayor, City Council |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, CEDS, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - in progress |
| **Report of Progress** | The city has a robust education program on floodplain management, with information posted on the city website and information available through City Hall and the city floodplain manager. |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, regional transportation plan, stormwater plan, stormwater ordinance. |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | Rolla has stormwater and drainage ordinances in place. There is also a stormwater management plan that is over 10 years old. The city just had an Integrated Management Plan (IMP) approved by both MDNR and EPA that also addresses stormwater. |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager, Mayor, City Council |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is a member of the NFIP and works to ensure compliance with the city floodplain management ordinance. The ordinance requires a permit for any development in the floodplain. The program might benefit from more focused education efforts with builders, insurers, banks and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the county LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, City EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | In the last five years, Rolla worked with Phelps County, MoDOT, Federal Highway Administration on the North Outer Road Incident By-Pass Route for I-44, which was funded through a CDBG grant. Rolla did the engineering for the project; MoDOT made accommodations; and the FHA gave up right-of-way to get the project completed. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. Rolla reports that hazard mitigation has been incorporated into the Comprehensive Plan, Capital Improvement Plan, Rolla Regional Economic Commission Economic Development Plan, and Integrated Management Plan. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing |
| **Report of Progress** | Rolla has not done a buyout in the last five years but would certainly consider doing so if the need arises. The community has done a significant amount of work on stormwater management to reduce flooding in the community. |

**Action 5.2.2:**  Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 16 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | To date, Rolla has not rezoned any floodplain properties into open space. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City Engineer, Mayor, City Council, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, City Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | The city has extensively integrated hazard mitigation into its plans and planning processes. Road and bridge projects are reviewed and designed to mitigate any on-going hazard problems. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS) and regional transportation plan. Two major developments – Ridgeview extension of Highway 72 and the West Side Development have been completed in the last five years. In both cases, stormwater accommodations to mitigate to reduce run-off occurred before construction began. Both projects conformed to State and Federal regulations. As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, City Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | Rolla has incorporated hazard mitigation goals into its capital improvement plan and includes mitigation projects in its annual budget.As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, Local Planners, City Engineer, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | The city works with developers to cost-share some projects that deal with stormwater run-off. In some cases the city will participate in installation of culverts to ensure the project is completed properly and to city standards. |

**St. James**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.1.1:** Maintain a hazard mitigation public awareness program to include: benefits of hazard mitigation planning and projects; personal emergency preparedness; participation in emergency notification systems where available; information on individual hazard mitigation projects such as tying down hazardous materials tanks; how to shut off utilities; precautions to take during threatening weather events; etc.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Residents are not always prepared to manage on their own for 72 hours following an event. This action item will improve individual household preparedness and increase knowledge of mitigation activities. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.1 |
| **Name of Action or Project:** | Personal Preparedness Education/Awareness programs |
| **Action or Project Description:** | City EMD and local emergency response agencies will promote Ready in 3 and other personal preparedness education programs through the distribution of brochures, press releases and presentations. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $3,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | 1 – 5 years - Ongoing |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Meramec Region Community Economic Development Strategy (CEDS) |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Many emergency response agencies promote individual household preparedness & provide Ready in 3 brochures. SEMA distributes press releases periodically on personal preparedness. A more focused and coordinated effort would help to achieve comprehensive coverage in the county. |

**Action 1.2.1:** Budget for and obtain early warning systems and improved communications systems.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with lack of early warning systems and communications systems in unincorporated areas. |
| **Hazard(s) Addressed:** | All hazards. |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.1 |
| **Name of Action or Project:** | Improving early warning and communications capabilities. |
| **Action or Project Description:** | Need to budget for enhanced warning and communications systems to improve early warning capabilities for residents in St. James. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing and updated – in progress |
| **Report of Progress** | St. James has three outdoor warning sirens. The county has a phone-based warning system – Everbridge – which can provide alerts to residents who sign up for it by text, cell phone, email and landline phone and is available to all residents of the county. This program could benefit from a more focused campaign to encourage residents to sign up for Everbridge. |

**Action 1.3.1:** Continue to implement tree trimming and dead tree removal programs by utility companies and local government.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks and vulnerabilities associated with power outages from trees interfering with power lines and/or blocking roads |
| **Hazard(s) Addressed:** | Tornadoes, severe winter weather, severe thunderstorm/high winds/lightning/hail |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.1 |
| **Name of Action or Project:** | Tree trimming and dead tree removal. |
| **Action or Project Description:** | Continue to implement tree trimming and dead tree removal. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damage, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Public Works, Mayor, City Council |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing– ongoing |
| **Report of Progress** | St. James contracts with a private company that does tree trimming around overhead lines and removes trees that are considered a hazard. |

**Action 1.3.3:** Establish designated shelters for residents to be used during tornado threats, as cooling centers during extreme heat or power outages and/or as shelters during other disasters.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with lack of tornado shelters and warming and cooling centers during times of extreme heat and cold, and power outages |
| **Hazard(s) Addressed:** | Severe Weather, Winter Storms, Tornadoes, Extreme Heat |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.3 |
| **Name of Action or Project:** | Establish and maintain designated storm shelters, as well as heating and cooling centers |
| **Action or Project Description:** | Establish designated shelters for residents to be used as shelters during tornado warnings, as well as heating and cooling centers during extreme heat or power outages. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 26 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing –in progress |
| **Report of Progress** | St. James reported that it had no designated shelters or certified tornado safe rooms. However, in the past several churches have served as temporary shelters for the community. There is a FEMA certified tornado shelter located in the Tacony Manufacturing building in the city’s industrial park. This action would benefit from the development of MOUs between the city and these entities to formalize sheltering options. |

**Action 1.3.4:** Facilities that house vulnerable populations such as disabled and elderly should review alternative locations for sheltering residents and MOUs with “sister” facilities.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for large groups such as hospitals, nursing homes and group homes. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.4 |
| **Name of Action or Project:** | Establish alternative shelters for facilities that house disabled and elderly populations such as hospitals, nursing homes and group homes. |
| **Action or Project Description:** | Continue to work to increase communications between facilities that house vulnerable populations and with local EMDs and agencies responsible for sheltering. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, county health department |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The city participated in a pilot project in the last five years to identify vulnerable populations in the community and get them signed up with Everbridge. Data on what private nursing and group homes have for emergency plans and MOUs does not currently exist. This action item would benefit from a focused effort to gather that data and assist these private institutions with establishing alternative sheltering plans. |

**Action 1.3.5:** Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with nonexistent/unavailable shelters for individual families and large groups. |
| **Hazard(s) Addressed:** | Tornados, severe storms |
| **Action or Project** | |
| **Action/Project Number:** | 1.3.5 |
| **Name of Action or Project:** | Increase the availability of storm shelters |
| **Action or Project Description:** | Increase availability (if necessary, construction) of storm shelters for individual families and large groups, including near large employment centers and schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $2,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD |
| **Action/Project Priority:** | 18 – Medium Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | There is a certified tornado saferoom located in the St. James industrial park in the Tacony Manufacturing building. Tacony has informed businesses in the industrial park that their employees can shelter there during a tornado warning. However, there is no MOU or agreement with the city for Tacony to open the shelter for the general public. The building is adjacent to a large residential area. This action would benefit from a focused effort to formalize an agreement for sheltering between the city and Tacony. |

**Goal 2:** Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

**Action 2.1.3:** Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with power outages for critical infrastructure/facilities |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 2.1.3 |
| **Name of Action or Project:** | Acquisition and installation of microgrids and backup generators for critical infrastructure. |
| **Action or Project Description:** | Encourage the installation of small renewable energy microgrids (solar, wind) and backup generators for critical infrastructure such as water/sewer systems and emergency services. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $25,500 – $80,000 |
| **Benefits:** | Losses avoided by implementing this action include loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Public Works |
| **Action/Project Priority:** | 21 –High Priority |
| **Timeline for Completion:** | 5 years |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, City Budget, Hazard Mitigation Plan, Critical Facility Budgets |
| **Progress Report** | |
| **Action Status** | Revised – in progress |
| **Report of Progress** | St. James has three portable generators and one fixed generator. |

**Action 2.2.1:** Educate residents, realtors and contractors on the dangers of floodplain development and the benefits of the NFIP.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of property located in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.1 |
| **Name of Action or Project:** | Floodplain education/awareness. |
| **Action or Project Description:** | Educate residents, realtors and contractors about the dangers of floodplain development and the benefits of the NFIP. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$6,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain manager, Mayor, City Council |
| **Action/Project Priority:** | 25 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinance, LEOP, CEDS, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – on going |
| **Report of Progress** | The city has floodplain brochures available at city hall. |

**Action 2.2.2:** Encourage development of storm water management plans in those jurisdictions that do not currently have them and in all new residential and commercial development.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities to property and communities in areas that do not possess adequate storm water management plans. |
| **Hazard(s) Addressed:** | Flood, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.2 |
| **Name of Action or Project:** | Encourage local governments to require contractor storm water management plans in all new development – both residential and commercial properties. |
| **Action or Project Description:** | Encourage the development of stormwater management plans for all new development through the adoption of ordinances or other local government regulations and encourage the county to review and strengthen any subdivision ordinances to incorporate mitigation measures for stormwater management. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $5,000-$25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, local planners |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, regional transportation plan |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | St. James has storm water and drainage ordinances in place but could benefit from reviewing and strengthening those ordinances. |

**Action 2.2.3:** Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities of properties in the floodplain during a flood event. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 2.2.3 |
| **Name of Action or Project:** | Floodplain management compliance enforcement. |
| **Action or Project Description:** | Continue to enforce flood damage prevention/floodplain management ordinances in compliance with NFIP requirements. |
| **Applicable Goal Statement:** | Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy. |
| **Estimated Cost:** | $4,000 - $10,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Floodplain Manager, Mayor, City Council |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain management ordinances, builder’s plans, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is a member of the NFIP and works to insure compliance with the city floodplain management ordinance. The ordinance requires a permit for any development in the floodplain. The program could benefit from more focused education efforts with builders, insurers, banks and residents. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.2.2:** Encourage meetings of EMD, city/county officials and SEMA to familiarize officials with mitigation planning, implementation and budgeting for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of knowledge/information of officials in regards to mitigation planning, implementation, and budgeting for mitigation projects. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.2.2 |
| **Name of Action or Project:** | Mitigation awareness/education meetings with local officials and SEMA |
| **Action or Project Description:** | Encourage meetings of EMD, city/county officials & SEMA to familiarize officials with mitigation planning, implementation & budgeting for mitigation projects. |
| **Applicable Goal Statement:** | Promote education, outreach, research, and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities. |
| **Estimated Cost:** | $0 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, SEMA Area Coordinator |
| **Action/Project Priority:** | 26 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | N/A |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - Ongoing |
| **Report of Progress** | The Region I SEMA area coordinator holds quarterly meetings in the region and discussions include a variety of topics, including mitigation. MRPC has provided information and presentations on mitigation at regular board meetings that included representatives from Phelps County and its jurisdictions. Due to changes in elected officials, this is an ongoing activity. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Re-evaluate the hazard mitigation plan and merge with other community planning activities. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $5,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Local Planners, MPC |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, County Budget, Economic Development Plan, Transportation Plan, Floodplain Ordinances |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. As more local officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor, City Council, City EMD |
| **Action/Project Priority:** | 28 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, County Budget |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | This is an on-going activity. Region I Fire Chiefs meet regularly. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together to discuss mitigation issues. |

**Action 4.1.3:** Pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | $1,000 - $4,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinance, LEOP, City Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. St. James reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, local planners, MPC |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community and Economic Development Strategy. Mitigation actions are part of the LEOP. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Action 5.2.1:**  Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 18 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | St. James has not had any requests from property owners for a buyout. The city does not issue building permits for structures located in the floodplain. |

**Action 5.2.2:**  Encourage communities to discuss zoning repetitive loss properties in the floodplain as open space.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with floodplain properties |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 5.2.1 |
| **Name of Action or Project:** | Government purchase of properties in the floodplain |
| **Action or Project Description:** | Encourage local governments to purchase properties in the floodplain as funds become available and convert that land into public space/recreation area. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $3,500 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include property damage, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Floodplain Manager/ Coordinator |
| **Action/Project Priority:** | 16 - M |
| **Timeline for Completion:** | N/A |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Floodplain ordinance, Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing – no progress |
| **Report of Progress** | . |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.2:** Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Roads and bridges in need of upgrades. |
| **Hazard(s) Addressed:** | Flood |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.2 |
| **Name of Action or Project:** | Structuring grant proposals to meet mitigation needs. |
| **Action or Project Description:** | Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $3,500 -$4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City Engineer, Mayor, City Council, Local Planners, Local Grant Writers |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, City Budget, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing - no progress |
| **Report of Progress** | The city has not had any grant projects for roads and bridges in the past five years. This is an activity that would benefit from raising awareness of mitigation concerns and remedies. As more local officials become aware of the importance of mitigation and realize that grant applications can provide opportunities for funding those actions, this activity will become more integrated into local planning. |

**Action 6.1.3:** Work with state/local/federal agencies to include mitigation in all economic and community development projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication/coordination of mitigation in community development projects and integration of mitigation actions into economic and community development projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.3 |
| **Name of Action or Project:** | Coordination with state/local/federal agencies to integrate mitigation into economic and community development projects. |
| **Action or Project Description:** | Work with state/local/federal agencies to include mitigation in all economic and community development projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $2,500 - $9.500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Mayor and City Council, local economic developers, community development organizations |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, CEDS, Transportation Plan |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | Hazard mitigation goals and actions have been incorporated into the regional Community Economic Development Strategy (CEDS) and regional transportation plan. As mitigation awareness grows, additional efforts will be made to incorporate mitigation activities into economic and community development projects. |

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects. |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council |
| **Action/Project Priority:** | 23 - H |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, private donations of cash, goods, or services |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard mitigation plan, City Budget, CEDs, LEOP |
| **Progress Report** | |
| **Action Status** | Continuing in Progress |
| **Report of Progress** | The city is working to improve the city’s water infrastructure – installing connecting lines between wells to make the system more resilient. The city is also replacing aging electric infrastructure and has implemented a policy of installing underground secondary electric for new construction. As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and working toward budgeting for mitigation activities. |

**Action 6.2.1:** Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of cost-share programs with private property owners for hazard mitigation projects. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.2.1 |
| **Name of Action or Project:** | Encourage local mitigation cost-share programs. |
| **Action or Project Description:** | Encourage cities and counties to develop and implement cost-share programs with private property owners for hazard mitigation projects that benefit the community as a whole. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $5,000 - $500,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | City EMD, Mayor, City Council, Local Planners, City Engineer, MPC |
| **Action/Project Priority:** | 14 – Medium Priority |
| **Timeline for Completion:** | 5 – 10 years to implement and then on-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan |
| **Progress Report** | |
| **Action Status** | Continuing -in progress |
| **Report of Progress** | The city will install a culvert purchased by a resident to ensure proper installation. |

**St. James R-I**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities.

**Action 1.1.8:** Construct certified tornado safe rooms in every school that does not have one.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with insufficient storm shelters and tornado safe rooms in schools that do not have them. |
| **Hazard(s) Addressed:** | Tornado, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.8 |
| **Name of Action or Project:** | Expansion of storm shelter availability and construction of certified tornado safe rooms. |
| **Action or Project Description:** | Construct certified tornado safe rooms to improve the safety for students and staff. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 20 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, School Emergency Plan, School Budget |
| **Progress Report** | |
| **Action Status** | Continuing – updated - no progress |
| **Report of Progress** |  |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.1.4:** Educate staff and parents on school safety protocols.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with staff and parents not having adequate knowledge of school safety protocols. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.1.4 |
| **Name of Action or Project:** | Educate staff and parents on school safety protocols. |
| **Action or Project Description:** | Actively engage staff and parents in relation to school safety protocols during natural hazard event. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the district’s staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board, Local Planners, MPC |
| **Action/Project Priority:** | 26 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, School Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | School districts currently do education with staff and parents on school emergency procedures, but all agreed that they wanted this action item to remain in the plan for the purpose of improving those efforts. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into other community plans and emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Review hazard mitigation plan, merge with other community planning and coordinate and integrate activities with emergency plans and procedures. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among school staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | The district continues to work to incorporate hazard mitigation actions into school plans and procedures. Some work has been done with the update of the school emergency plan. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together – including school districts - to discuss mitigation issues. |

**Action 4.1.3:** Whenever possible, pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinances, LEOP, District Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. All jurisdictions reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The school is working to incorporate hazard mitigation into more of the schools plans and planning processes. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | St. James R-I |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Board, Superintendent, MPC |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and are working toward budgeting for mitigation activities. |

**Newburg R-II**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities.

**Action 1.1.8:** Construct certified tornado safe rooms in every school that does not have one.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with insufficient storm shelters and tornado safe rooms in schools that do not have them. |
| **Hazard(s) Addressed:** | Tornado, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.8 |
| **Name of Action or Project:** | Expansion of storm shelter availability and construction of certified tornado safe rooms. |
| **Action or Project Description:** | Construct certified tornado safe rooms to improve the safety for students and staff. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 20 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, School Emergency Plan, School Budget |
| **Progress Report** | |
| **Action Status** | Continuing – updated - no progress |
| **Report of Progress** |  |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.1.4:** Educate staff and parents on school safety protocols.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with staff and parents not having adequate knowledge of school safety protocols. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.1.4 |
| **Name of Action or Project:** | Educate staff and parents on school safety protocols. |
| **Action or Project Description:** | Actively engage staff and parents in relation to school safety protocols during natural hazard event. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the district’s staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board, Local Planners, MPC |
| **Action/Project Priority:** | 26 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, School Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | School districts currently do education with staff and parents on school emergency procedures, but all agreed that they wanted this action item to remain in the plan for the purpose of improving those efforts. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into other community plans and emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Review hazard mitigation plan, merge with other community planning and coordinate and integrate activities with emergency plans and procedures. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among school staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | The district continues to work to incorporate hazard mitigation actions into school plans and procedures. Some work has been done with the update of the school emergency plan. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together – including school districts - to discuss mitigation issues. |

**Action 4.1.3:** Whenever possible, pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinances, LEOP, District Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. All jurisdictions reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The school district is working to incorporate hazard mitigation into more of the schools plans and planning processes. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Newburg R-II |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Board, Superintendent, MPC |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and are working toward budgeting for mitigation activities. |

**Phelps County R-III**

**Goal 1:** Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities.

**Action 1.2.2:** Purchase weather radios for those schools that do not have them to insure advanced warning about threatening weather.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with the school not having access to National Weather Service warnings during weather events. |
| **Hazard(s) Addressed:** | Flooding, Severe Winter Weather, Tornado, High Winds, Thunderstorms |
| **Action or Project** | |
| **Action/Project Number:** | 1.2.2 |
| **Name of Action or Project:** | Purchase weather radios for all schools. |
| **Action or Project Description:** | Purchase weather radios for all schools. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning, and hazard mitigation activities. |
| **Estimated Cost:** | $50 - $100 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent |
| **Action/Project Priority:** | 26 – High Priority |
| **Timeline for Completion:** | 2022 |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, School Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing |
| **Report of Progress** | Phelps R-III has had weather radios in the past but does not currently have an operating radio. All other school districts in the region reported having functioning weather radios. |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities

.

**Action 3.1.4:** Educate staff and parents on school safety protocols.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with staff and parents not having adequate knowledge of school safety protocols. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.1.4 |
| **Name of Action or Project:** | Educate staff and parents on school safety protocols. |
| **Action or Project Description:** | Actively engage staff and parents in relation to school safety protocols during natural hazard event. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the district’s staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board, Local Planners, MPC |
| **Action/Project Priority:** | 26 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, School Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | School districts currently do education with staff and parents on school emergency procedures, but all agreed that they wanted this action item to remain in the plan for the purpose of improving those efforts. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into other community plans and emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Review hazard mitigation plan, merge with other community planning and coordinate and integrate activities with emergency plans and procedures. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among school staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | The district continues to work to incorporate hazard mitigation actions into school plans and procedures. Some work has been done with the update of the school emergency plan. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together – including school districts - to discuss mitigation issues. |

**Action 4.1.3:** Whenever possible, pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinances, LEOP, District Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. All jurisdictions reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The school is working to incorporate hazard mitigation into more of the schools plans and planning processes. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Phelps County R-III |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Board, Superintendent, MPC |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and are working toward budgeting for mitigation activities. |

**Rolla 31**

**Goal 1:**  Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities.

**Action 1.1.8:** Construct certified tornado safe rooms in every school that does not have one.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with insufficient storm shelters and tornado safe rooms in schools that do not have them. |
| **Hazard(s) Addressed:** | Tornado, Severe Weather |
| **Action or Project** | |
| **Action/Project Number:** | 1.1.8 |
| **Name of Action or Project:** | Expansion of storm shelter availability and construction of certified tornado safe rooms. |
| **Action or Project Description:** | Construct certified tornado safe rooms to improve the safety for students and staff. |
| **Applicable Goal Statement:** | Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 20 –High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, School Emergency Plan, School Budget |
| **Progress Report** | |
| **Action Status** | Continuing – updated - no progress |
| **Report of Progress** |  |

**Goal 3:** Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

**Action 3.1.4:** Educate staff and parents on school safety protocols.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with staff and parents not having adequate knowledge of school safety protocols. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.1.4 |
| **Name of Action or Project:** | Educate staff and parents on school safety protocols. |
| **Action or Project Description:** | Actively engage staff and parents in relation to school safety protocols during natural hazard event. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among the district’s staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board, Local Planners, MPC |
| **Action/Project Priority:** | 26 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | LEOP, Hazard Mitigation Plan, School Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – On-going |
| **Report of Progress** | School districts currently do education with staff and parents on school emergency procedures, but all agreed that they wanted this action item to remain in the plan for the purpose of improving those efforts. |

**Action 3.3.1:** Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not regularly reviewing and updating the mitigation plan and incorporating mitigation activities into other community plans and emergency operations plans and procedures. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 3.3.1 |
| **Name of Action or Project:** | Review hazard mitigation plan, merge with other community planning and coordinate and integrate activities with emergency plans and procedures. |
| **Action or Project Description:** | Re-evaluate the hazard mitigation plan, merge with other community planning and coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures. |
| **Applicable Goal Statement:** | Promote education, outreach, research and development programs to improve the knowledge and awareness among school staff and students about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities |
| **Estimated Cost:** | $3,500 - $4,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 21 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds, private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | The district continues to work to incorporate hazard mitigation actions into school plans and procedures. Some work has been done with the update of the school emergency plan. |

**Goal 4:** Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

**Action 4.1.1:** Continue to encourage joint meetings of different organizations/agencies for mitigation related planning.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of synergy/communication among organizations/agencies for mitigation related planning. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.1 |
| **Name of Action or Project:** | Encourage joint meetings of different organizations/agencies and continued communication on mitigation. |
| **Action or Project Description:** | Continue to encourage joint meetings of different organizations/agencies for mitigation related planning. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 27 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, School Emergency Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. The Region I SEMA area coordinator holds quarterly meetings throughout the six-county region, including in Phelps County. This program could benefit from a more coordinated, focused effort to bring different agencies together – including school districts - to discuss mitigation issues. |

**Action 4.1.3:** Whenever possible, pool different agency resources to achieve widespread mitigation results.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of resources to carry out mitigation projects |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 4.1.3 |
| **Name of Action or Project:** | Pool different agency resources to achieve widespread mitigation results. |
| **Action or Project Description:** | Bring together different agencies and organizations that have similar goals and work together to pool resources to move mitigation projects forward. |
| **Applicable Goal Statement:** | Strengthen communication and coordinate participation between agencies, stakeholders, jurisdictions, and the public to create widespread interest in mitigation. |
| **Estimated Cost:** | Unknown |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | Superintendent, School Board |
| **Action/Project Priority:** | 24 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, Floodplain Ordinances, LEOP, District Budget, School Emergency Plan |
| **Progress Report** | |
| **Action Status** | Continuing – on-going |
| **Report of Progress** | This is an on-going activity. All jurisdictions reported that they are interested in finding ways to pool resources to accomplish mitigation projects. |

**Goal 5:** Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

**Action 5.1.1:** Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Risks/vulnerabilities associated with not incorporating hazard mitigation in the long-term planning and development of activities by each jurisdiction. |
| **Hazard(s) Addressed:** | All Hazards |
| **Action or Project** | |
| **Action/Project Number:** | 5.1.1 |
| **Name of Action or Project:** | Incorporating hazard mitigation into all long-range planning and development activities |
| **Action or Project Description:** | Incorporate hazard mitigation into the long-range planning and development activities of the county and each jurisdiction. |
| **Applicable Goal Statement:** | Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefits of special interests. |
| **Estimated Cost:** | $2,500 - $25,000 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss of function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Superintendent, School Board |
| **Action/Project Priority:** | 29 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Grants, local general revenue funds, and private donations of cash, goods, or services. |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, LEOP, economic development plan, transportation plan, floodplain ordinance |
| **Progress Report** | |
| **Action Status** | Continuing – in progress |
| **Report of Progress** | The school is working to incorporate hazard mitigation into more of the schools plans and planning processes. As more officials become familiar with mitigation and understand how it fits within other planning activities, this action item will continue to expand. |

**Goal 6:** Secure resources for investment in hazard mitigation.

**Action 6.1.4:** Encourage local jurisdictions to budget for mitigation projects.

|  |  |
| --- | --- |
| **Action Worksheet** | |
| **Name of Jurisdiction:** | Rolla 31 |
| **Risk / Vulnerability** | |
| **Problem being Mitigated:** | Lack of funding for mitigation projects among local jurisdictions. |
| **Hazard(s) Addressed:** | All hazards |
| **Action or Project** | |
| **Action/Project Number:** | 6.1.4 |
| **Name of Action or Project:** | Budgeting for mitigation projects |
| **Action or Project Description:** | Encourage local jurisdictions to budget for mitigation projects. |
| **Applicable Goal Statement:** | Secure resources for investment in hazard mitigation. |
| **Estimated Cost:** | $500 - $1,500 |
| **Benefits:** | Losses avoided by implementing this action include injuries and/or casualties, property damages, loss-of-function/displacement impacts, and emergency management costs/community costs. |
| **Plan for Implementation** | |
| **Responsible Organization/Department:** | School Board, Superintendent, MPC |
| **Action/Project Priority:** | 23 – High Priority |
| **Timeline for Completion:** | On-going |
| **Potential Fund Sources:** | Local general revenue funds |
| **Local Planning Mechanisms to be Used in Implementation, if any:** | Hazard Mitigation Plan, District Budget |
| **Progress Report** | |
| **Action Status** | Continuing in progress |
| **Report of Progress** | As awareness of the importance of mitigation grows, more local jurisdictions are seeing the long-term benefits and are working toward budgeting for mitigation activities. |

1. [www.fema.gov/cis/mo.html](http://www.fema.gov/cis/mo.html) [↑](#footnote-ref-1)