

Aitkin County Board of Commissioners
Request for County Board Action/Agenda Item Cover Sheet



To: Chairperson, Aitkin County Board of Commissioners Date: 06/05/13

Via:

From: Sheriff Scott Turner

Title of Item: Aitkin County Multi-Hazard Mitigation Plan

Requested Meeting Date: 06/11/13 Est. Presentation Time: 15 min

Presenter: Sheriff Scott Turner

Type of Action Requested (check all that apply)

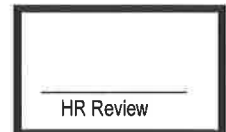
- For info only, no action requested Approve under Routine Business
- For discussion only with possible future action Adopt Ordinance Revision
- Let/Award Bid or Quote (attach copy of basic bid/quote specs or summary of complex specs, each bid/quote received & bid/quote comparison)
- Approve/adopt proposal by motion Approve/adopt proposal by resolution (attach draft resolution)
- Authorize filling vacant staff position
- Request to schedule public hearing or sale Other (please list)
- Request by member of the public to be heard
- Item should be addressed in closed session under MN Statute _____

Fiscal Impact (check all that apply)

- Is this item in the current approved budget? Yes No (attach explanation)
- What type of expenditure is this? _____ Other (attach explanation)
- Revenue line account # that funds this item is: 280-5840 (grant funds)
- Expenditure line account # for this item is: _____

Staffing Impact (Any yes answer requires a review by Human Resources Manager before going to the board)

- Duties of a department employee(s) may be materially affected. Yes No
- Applicable job description(s) may require revision. Yes No
- Item may impact a bargaining unit agreement or county work policy. Yes No
- Item may change the department's authorized staffing level. Yes No



Supporting Attachment(s)

- Memorandum Summary of Item
- Copy of applicable county policy and/or ordinance (excerpts acceptable)
- Copy of applicable state/federal statute/regulation (excerpts acceptable)
- Copy of applicable contract and/or agreement
- Original bid spec or quote request (excluding complex construction projects)
- Bids/quotes received (excluding complex construction projects, provide comparison worksheet)
- Bid/quote comparison worksheet
- Draft County Board resolution
- Plat approval check-list and supporting documents
- Copy of previous minutes related to this issue
- Other supporting document(s) (please list) ARDC Proposal for Update of Aitkin County Multi-Hazard Mitigation Plan

Provide eleven (11) copies of supporting documentation NO LATER THAN Wednesday at 8:00am to make the Board's agenda for the following Tuesday. Items WILL NOT be placed on the Board agenda unless complete documentation is provided for mailing in the Board packets. (see reverse side for details)

SCOTT A. TURNER

SHERIFF OF AITKIN COUNTY

217 Second Street NW
Aitkin, MN 56431

218-927-2138 Emergency 911
Sheriff Fax 218-927-7359 / Dispatch Fax 218-927-6887

MEMO

To: Aitkin County Board of Commissioners

Date: June 5, 2013

From: Sheriff Scott Turner

Re: Hazard Mitigation Planning Grant

Attached is a copy of a proposal from Arrowhead Regional Development Commission (ARDC) for the updating of Aitkin County's Multi-Hazard Mitigation Plan. If you recall, in October of 2012, the Aitkin County Board of Commissioners passed a resolution to enter into a sub-grant agreement with the Division of Homeland Security and Emergency Management in the Minnesota Department of Public Safety for grant funding to help pay for this service. That grant will be used to pay for this plan update, along with some "in-kind" contribution from the participating cities and Aitkin County.

This update will make all of the municipalities (Aitkin, Hill City, McGrath, McGregor, Palisade and Tamarack), townships and the County of Aitkin eligible for hazard mitigation funding opportunities as they become available. Through this planning process we will work to identify potential hazards that exist (both natural and man-caused) for all of Aitkin County and identify mitigation strategies for those hazards.

The project budget from ARDC is \$25,500. That amount is covered by the grant. There is a local match of \$8,500. The local match will be met by an "in-kind" contribution of time from Aitkin County and the participating municipalities..

I am requesting authorization for the Aitkin County Board Chair and I to enter into this agreement with ARDC for providing this service.

If you have any questions, please do not hesitate to call.



AITKIN COUNTY

MULTI-HAZARD MITIGATION PLAN

UPDATE

Arrowhead Regional Development Commission

221 West First Street

Duluth, MN 55812

www.arrowheadplanning.org

The Multi-Hazard Mitigation Plan (MHMP) is a requirement of the Federal Disaster Mitigation Act of 2000.

The Aitkin MHMP will represent the efforts of local cities and agencies in Aitkin County in fulfilling the responsibility for mitigation planning.

The intent of the plan is to reduce the actual threat of specific hazards by limiting the impact of damages and losses.

ARDC PROJECT CONTACT:

Bonnie Hundrieser

218.529.7529

bhundrieser@ardc.org

Proposal
Submitted:
May 29, 2013



AITKIN COUNTY

MULTI-HAZARD MITIGATION PLAN UPDATE

SUMMARY

The Arrowhead Regional Development Commission (ARDC) proposes to provide professional services to Aitkin County to update the Aitkin County Multi-Hazard Mitigation Plan for FEMA approval. The County is required by the State of Minnesota Division of Homeland Security and Emergency Management (HSEM) to update its plan every five years. In the spring of 2013 Aitkin County was awarded a planning grant from HSEM / FEMA to proceed with hiring a contractor for the update of the plan.

The following proposal outlines how ARDC will work in cooperation with the University of Minnesota – Geographic Information Sciences Laboratory (UMD-GISL) to update the multi- hazard mitigation plan.

ARDC

The Arrowhead Regional Development Commission (ARDC) is a multi-disciplined planning and development organization whose jurisdiction encompasses the Northeast Minnesota counties of Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis.

The mission of ARDC is to serve the people of the Arrowhead Region by providing local units of government and citizens groups a means to work cooperatively in identifying needs, solving problems and fostering local leadership.

This project is proposed by ARDC's Regional Planning Division. The professional planning staff for this project will be led by Senior Planner Bonnie Hundrieser.

BACKGROUND

ARDC has a successful record of providing professional planning services in the areas of emergency management and hazard mitigation to communities in northeast Minnesota, including development of Hazard Mitigation Plans for each of the seven counties in the ARDC service area (2004-2008), update of the Lake County Community Wildfire Protection Plan (2011), and administration of two FEMA Pre-Disaster Mitigation grant programs for installation of external wildfire sprinkler systems in high-risk wildfire areas of St. Louis and Lake Counties (2009-2011). ARDC wrote the 2005 hazard mitigation plan for Aitkin County and is prepared to do the five year update using current resources required by FEMA and HSEM.

PROJECT TEAM

ARDC's Regional Planning Division: This work will be led by Bonnie Hundrieser, ARDC Senior Planner. Hundrieser will be responsible for project coordination, plan research, writing, meeting organization, facilitation, and documentation. Hundrieser has worked on the implementation of two

FEMA pre-disaster mitigation projects for the installation of external wildfire sprinkler systems in high-risk wildfire areas of St. Louis and Lake County. She has also taken several FEMA / HSEM trainings and courses for hazard mitigation planning and development of Hazard Mitigation Grant Program applications.

Andy Hubley, Regional Planning Division Director will provide project oversight and guidance. Hubley has nearly 16 years of planning and planning project management experience. Hubley is certified by the American Institute of Certified Planners.

Liz Sarabia, Regional Planning Division Secretary will provide project support (final document layout, design & printing and CD creation).

University of Minnesota – Geographic Information Sciences Laboratory (UMD-GISL): UMD GISL will work under subcontract to ARDC to develop the GIS-related requirements of the plan (HAZUS-MH and geospatial mapping will be used to develop the County Profile and Risk Assessment data). This work will be led by Stacey Stark, GISL Director, who will coordinate tasks with other GISL staff and students.

Aitkin County: Throughout the project process, ARDC and UMD-GISL will work closely with the Aitkin County Emergency Manager Sheriff Scott Turner, who will lead the mitigation plan update process for Aitkin County and oversee work done by ARDC. Turner will form a Mitigation Plan Update Committee that represents county departments and participating cities. ARDC will work with the Emergency Manager and the Mitigation Plan Update Committee through each phase of the plan update to ensure support of the planning process. ARDC will provide regular correspondence to keep the committee abreast of the status of the Aitkin County hazard mitigation planning process. This will be accomplished by initiating telephone calls, e-mails, interviews, and a limited number of additional meetings, as necessary.

PROJECT APPROACH / SCOPE OF WORK

This will be a multi-jurisdictional plan that includes the following cities: Aitkin, Hill City, McGregor, McGrath, Palisade and Tamarack.

The hazards that will be addressed in the plan update include: Winter Storms, Ice Storms, Thunderstorms, Hailstorms, Lightning, Tornadoes, Windstorms, Extreme Temperatures, Flooding, Drought, Wildfire, Infectious Diseases, Earthquake, Solar Storm, Structural Fires, Hazardous Materials, Water Supply Contamination, Wastewater System Failure, Dam Failure, and Radiological Terrorism.

As per FEMA requirements, the plan will include the following components:

- 1) **Planning Process:** This section of the plan will document the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.
- 2) **Risk Assessment:** This section of the plan provides the factual basis for activities proposed in the strategy to reduce losses from identified losses. The plan will include a description of the type, location, and extent of all natural hazards that can affect the communities participating in the plan process.

- 3) **Mitigation Strategy:** This section provides the community’s blueprint for reducing the potential losses identified in the risk assessment. This section of the plan will include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
- 4) **Plan Maintenance Procedure:** This section of the plan will describe the plan maintenance process including the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
- 5) **Plan Adoption:** This section of the plan will include documentation that the governing body of the community requesting the approval of the plan has formally adopted the plan.

To work effectively with the Aitkin County Multi-Hazard Mitigation Plan Update Committee to complete identified plan requirements, ARDC will follow the Scope of Work as per Aitkin County’s Hazard Mitigation Assistance Planning Grant Application to HSEM. (See Attachment A, Section C “Scope of Work” pages A-5 to A-11).

ARDC will be involved with Tasks 1-5 as detailed by the above-noted Scope of Work. Below is a summary chart of these tasks and associated time anticipated for each:

Consultant Tasks and Estimated Project Hours as per Attachment A, Section C

<u>Tasks</u>	<u>Hours</u>
Task 1: Organize Resources	40
Task 2: Assess Risks/GIS Analysis	96
Task 3: Prioritize Mitigation Strategies	55
Task 4: Complete Multi-Hazard Mitigation Plan Update	50
Task 5: FEMA/State Review	26
Total:	267

ARDC and UMD-GISL Collaboration

To complete the Aitkin County Multi-Hazard Mitigation Plan (MHMP), ARDC proposes to work in collaboration with the University of Minnesota – Geographic Information Sciences Laboratory (UMD-GISL) to update the MHMP as per requirements by FEMA. Following is an overview of proposed shared responsibilities and tasks to complete the plan.

1. Overview of Responsibilities

Based on the recently completed Lake County Multi-Hazard Mitigation Plan (2012), the following plan content areas would be developed either by primarily the GISL or ARDC as lead:

- Section 1 - Introduction (ARDC)
- Section 2 - Public Planning Process (ARDC)
- Section 3 - County Profile [text, table, maps] (UMD)

- Section 4 - Risk Assessment [text, table, maps] (UMD)
- Section 5 - Mitigation Strategy [community capability assessment, Goals & Objectives review and revisions, Mitigation Actions & Projects using STAPLE+E prioritization to plug into mitigation actions chart] (ARDC)
- Section 6 - Plan Maintenance (ARDC)

In general, UMD would provide most of the content for sections 3 and 4 and rough formatting, but all the final formatting and editing would be done by ARDC to pull the whole document together.

2. Overview of ARDC / GISL Hazard Mitigation Tasks and Effort

Task	Approx Hours
Analysis	
Level 2 flood HAZUS analysis	
GISL, GIS student	15
GISL, Stacey Stark, Project Manager	5
GISL, Steve Graham, Research Analyst	22
Update maps in county profile, analysis and risk assessment	
GISL, GIS student	70
GISL, Stacey Stark, Project Manager	10
GISL, Steve Graham, Research Analyst	10
Update text and tables in county profile, analysis and risk assessment	
ARDC, UMD Intern	60
Mitigation Actions Survey design and implementation	
ARDC, Planner	45
County Meetings/Correspondence	
Design and implement strategies from input for dept and partners	
ARDC, Planner	45
Development, Facilitation, and Documentation of 4 Meetings (1 Kick off Steering Committee Meeting and 3 Additional Public Comment Meetings (travel time included)	
ARDC, Planner	125
ARDC, UMD Intern	25
Misc Correspondence Between UMD, ARDC, and Steering Committee	
ARDC, Planner	
GISL, Stacey Stark, Project Manager	10
Report preparation	
Analyze public commentary and summarize survey	
ARDC, Planner	40
Draft report prep for public meeting	
ARDC, Planner	40
ARDC, UMD Intern	20
Report final and review	
ARDC, Planner	40
ARDC, UMD Intern	20

Public Involvement:

ARDC will ensure that outreach to and engagement of the public will be done throughout the plan update process to inform the public, answer questions, and capture their comments and concerns. As per the Attached Scope of Work (page A-5), ARDC will conduct a minimum of 5 meetings on the hazard mitigation planning process. These briefings will occur throughout the duration of the project at key points of the plan update.

Project Duration:

As per the Attached Scope of Work (page A-11), total project duration is expected to be 18 months. State funding to Aitkin County for this project expires February 15, 2016. Any additional time that may be required by ARDC or UMD-GISL for project completion beyond 18 months will be approved with written agreement by Aitkin County Sheriff Scott Turner.

BUDGET

As consultant to Aitkin County, ARDC will gather data for the plan, facilitate meetings, work with UMD-GISL to develop HAZUS-MH and GIS based loss estimates and revise the plan. ARDC will be involved with Tasks 1-5 as detailed in Attachment A, Section C "Scope of Work". **ARDC consultant fees are estimated to a maximum of \$25,500.00 for contractual planning services.** Aitkin County has \$25,500 for these services included in their approved grant contract with the State of Minnesota (see Attachment A, page A-12).

On the following page is a breakdown of anticipated budget costs.

**ARDC - Aitkin County Multi-Hazard Mitigation Plan Update
PROJECT BUDGET**

Activity	Hours	Cost
Division Director		
Project Supervision / Document Review	20	\$1,800.00
	20	\$1,800.00
ARDC Planner		
Meeting Preparation, Facilitation, and Documentation; Research and Plan Development, Public Outreach; Project Website Creation and Maintenance; Shared Intern Supervision	267	\$15,486.00
	267	\$15,486.00
Division Secretary		
Project Support (Final Document Layout Design & Printing + CD creation)	8	\$336.00
	8	\$336.00
Direct Costs		
UMD - GISL (Sub-Contractor to ARDC)		\$7,255.00
Meeting supplies (i.e., project binders, flip chart paper)		\$150.00
Travel (0.565/mile)		\$250.00
Printing / Document Production		\$223.00
		\$7,878.00
Total		\$25,500.00

On the following page is a budget breakdown of the UMD-GISL amount under "Direct Costs" listed above.

UMD – GISL: Budget Breakdown:

The cost of the University of Minnesota – Geographic Information Sciences Laboratory to sub-contract to ARDC for this project includes the following breakdown for all HAZUS analysis and development of all related tables and maps.

Task	Cost	Hours
Misc correspondence		
Stacey Stark, Project Manager	\$900	10
Update maps in county profile, analysis and risk assessment		
GIS student	\$1,750	70
Stacey Stark, Project Manager	\$900	10
Steve Graham, Research Analyst	\$900	10
Level 2 flood HAZUS analysis		
GIS student	\$375	15
Stacey Stark, Project Manager	\$450	5
Steve Graham, Research Analyst	\$1,980	22
Grand Total	\$7,255	142

PROPOSAL CONTACT:

For questions or clarifications on this proposal please contact:

Bonnie Hundrieser, Senior Planner

Phone: 218.529.7527

Email: bhundrieser@ardc.org



STATE OF MINNESOTA
 Department of Public Safety
 Division of Homeland Security and Emergency Management
 444 Cedar Street, Suite 223
 St. Paul, MN 55101-6223
 (651) 201-7400

ATTACHMENT A

**HAZARD MITIGATION ASSISTANCE
 PLANNING GRANT APPLICATION**

Directions:

1. Complete all sections. Boxes expand as you type.
2. Return completed application to the above address, attention State Hazard Mitigation Officer.

A. PLAN INFORMATION

Name of Organization/Agency: Aitkin County

Type of Plan (check one):

- Multi-Jurisdiction Plan Single Jurisdiction Plan Tribal Community Plan

If the jurisdiction already has an approved mitigation plan: Plan approval date: 4/6/2005

Note: Attach a copy of the Plan Requirements Crosswalk supplied by FEMA when the current plan was approved.

List the communities participating in the plan (county, cities, and/or tribal communities): Aitkin County,
 Please add participating cities. Aitkin, Hill City, McGregor, McGrath, Palisade, Tamarack

Note for Multi-Jurisdictional Plans: A Statement of Interest in All-Hazard Mitigation Planning for cities listed above are required to be submitted with this application. Townships are optional.

Eligible Planning Activity (check one):

- New Plan Development Five Year Plan Review

Note: Jurisdictions with no plans should check New Plan Development. Jurisdictions with plans already approved by FEMA should check Five Year Plan Review and also determine:

Resolution: applicant has passed or is in the process of passing a resolution authorizing participation in program and designating a signatory.

This document is attached pending other (explain)

Federal Tax ID #/FEIN 41-6005749	DNIS Number http://fedgov.dnb.com/webform 04-746-4805	FIPS Code 27-001 Search by State & county: http://www.census.gov/go/www/fips/fips65/ Search by State: http://mcdc.missouri.edu/webrepts/commoncodes
US Congressional Districts http://www.nationalatlas.gov/printable/congress.html#mn MN 8		State Legislative Districts Senate House 10 10B

December 2011

Planning Approach

1. Provide a detailed explanation of expected deliverables; A FEMA approved multi-jurisdictional hazard mitigation plan is the expected deliverable. Details of the planning process are listed in Section C. Scope of Work.
2. State how the community or the communities have benefitted from the current approved plan, specifically from the reduction of the impacts from natural hazards. There have been a number of entities that have started using the NOAA weather radio for advanced warning of severe weather and other natural and manmade disasters. Outdoor sirens have also been implemented in various areas of the county to aid in advanced warning.
3. Review FEMA's crosswalk for current plan. List items that were recommended for improvement and how they will be addressed. The approval crosswalk for the current plan was reviewed along with the FEMA's mitigation plan guidance. The *Recommended Revision* items from the crosswalk will be met by following the requirements of the planning guidance. In addition, HAZUS-MH and geospatial mapping will be used to define vulnerability.
4. List the hazards that will be addressed in the plan update.
 Winter Storms, Ice Storms, Thunderstorms, Hailstorms, Lightning, Tornadoes, Windstorms, Extreme Temperatures, Flooding, Drought, Wildfire, Infectious Diseases, Earthquake, Solar Storm, Structural Fires, Hazardous Materials, Water Supply Contamination, Wastewater System Failure, Dam Failure, Radiological, Terrorism.

B. CONTACT INFORMATION

PRIMARY POINT OF CONTACT	ALTERNATE POINT OF CONTACT
Name: Scott Turner	Name: Karla White
Title: Emergency Manager	Title: Deputy Emergency Manager
Agency: Aitkin County Sheriff's Office	Agency: Aitkin County Sheriff's Office
Address/P.O. Box Number: 217 2 nd St NW, RM 185	Address/P.O. Box Number: 217 2 nd St NW, RM 185
City: Aitkin, MN Zip Code: 56431	City: Aitkin MN Zip Code: 56431
Telephone Number: 218 927-7420 ext.	Telephone Number: 218 927-7436 ext.
Fax Number: 218 927-7359	Fax Number: 218 927-6887
Email Address: turners@co.aitkin.mn.us	Email Address: kwhite@co.aitkin.mn.us

Explain how the community intends to develop or update the mitigation plan. Quarterly reports should reflect work complete in each of the following sections.

Task 1: Organize Resources

The Emergency Manager for Aitkin County will lead the mitigation plan update process. A Mitigation Plan Update Committee will be convened that represents county departments and participating cities. The Emergency Manager and the Committee will be involved in all phases of updating the plan and coordinating the review with HSEM and FEMA. Aitkin County will procure the services of a consultant to assist in facilitating meetings, updating the risk assessment using HAZUS-MH and overall revision of the plan. The county will use its procedures to follow 44 CFR §13.36 when procuring the services of the consultant.

Subtask 1.1: Coordinate with Mitigation Plan Update Committee: The consultant will work with the Mitigation Plan Update Committee. Coordinating with this core group is important to ensure support of the planning process and implementation once the plan is completed. The planning committee will further coordinate with non-profit organizations, state, regional, and local government representatives, businesses and development organizations, federal representatives, elected officials, academic officials, and individuals from neighboring jurisdictions.

Subtask 1.2: Update Process and Identify Hazards

The consultant will start to collect data such as the current mitigation plan, updated disaster history, and relevant plans and ordinances before the first formal meeting convenes. The consultant will develop issues and points of discussion from the information it has collected. After reviewing the information, The consultant will prepare an agenda to be sent to the members before the first meeting. The meetings will address the following key points:

- Address FEMA's requirements for updating mitigation plans; as identified in 44 CFR 201.6(d)(3)
- Identify members' contribution to the planning process;
- Address preliminary goals and objectives;
- Identify (and debrief) meetings with key community stakeholders and any other bodies that may seem appropriate;
- Distribute questionnaires that will assist in identifying resources that will be needed for successful completion of the project;
- Highlight the progress-to-date and the schedule for the remainder of the planning process, and;
- Solicit input from members.

The consultant will conduct five (5) meetings on the hazard mitigation planning update process. These briefings will occur throughout the duration of the project.

Meeting 1: In the kickoff meeting, the consultant will describe the rationale behind the mitigation program and answer questions from participants. This meeting will also include a discussion of roles, responsibilities, decision-making processes, administrative procedures, and communication strategies..

Meeting 2: At this meeting, the consultant will present a local map with the HAZUS-MH critical facilities plotted. This map will be used to elicit better local information from the planning committee. The committee will also reprioritize the hazards it feels most affects the community and profile the hazards to model with HAZUS-MH including floods and hazardous materials spills.

Meeting 3: Meeting 3 is typically set as the public meeting and often held in conjunction with Meeting 2 or 4. The consultant will present the results of the modeling and risk assessment analyses and will answer questions from the planning committee and the public.

Meeting 4: In this meeting, the consultant will lead the committee in a brainstorming session to list and prioritize mitigation strategies that need to be updated or added.

Meeting 5: In meeting 5, the planning committee will meet to review and revise the draft plan before adopting it. To facilitate continual participation of the Aitkin County Hazard Mitigation Planning Committee, the consultant will provide regular correspondence to keep the committee abreast of the status of the Aitkin County hazard mitigation planning process. This will be accomplished by initiating telephone conference calls, e-mails, interviews, and a limited number of additional meetings, as necessary.

Subtask 1.3: Public Involvement

During the planning/update process, the county will conduct two public forums and several public outreach activities

to solicit public involvement. Public meetings will be announced using a variety of methods. The consultant will conduct two presentations in a public meeting and will assist in answering questions. The first will provide a briefing of the County's updated risk assessment findings and present the first draft of the updated plan (i.e. Meeting 3). The second meeting will present the proposed mitigation goals, objectives and strategies (i.e. Meeting 5). These public meetings will be held immediately following or in conjunction with the County Hazard Mitigation Planning Committee briefings/meetings. Public and key agency involvement at this meeting will provide the consultant and the County Hazard Mitigation Planning Committee with different points of view about the needs of the community and help build consensus for the plan, especially among the approving agencies. Additionally, the consultant will provide support and advice to Aitkin County's efforts to inform the public about the opportunity to participate in the update process. These efforts may include:

- Advertisements in local newspapers;
- Preparation of public service announcements;
- Distribution of brochures, newsletters and fliers, and;
- Posting information and announcements on the county web site.

Methods of capturing the public's comments and concerns may include recording or documenting the meetings, providing comment cards, use of easel charts to record comments during question and answer sessions, and minutes summarizing the proceedings.

Projected Completion: 9 Months

Task 2: Assess Risks/GIS Analysis

A community's hazard risk assessment is a critical document that defines a community's strategic common operational picture to mitigate, as well as prepare, protect, respond, and recover to emergencies and disasters. The consultant also recognizes that a community's vulnerability assessment and analysis is a definitive measure of the risk associated with each individual hazard. Therefore, in addition to updating the Aitkin County's multi-hazard risk assessment for the mitigation plan, the consultant will develop planning considerations that Aitkin County can integrate into other planning doctrine. This approach will serve as the foundation for other emergency management initiatives and create increased programmatic efficiencies and a common operational picture. The consultant will also assist the community with updating the risk assessment by using HAZUS-MH as an added risk assessment tool. The consultant's methodology should ensure:

- Uniformity between hazard categories.
- Utilizes empirical values that can be universally applied to all communities, facilities and systems.
- Employs complex GIS modeling and analysis of probable scenarios to provide planning considerations of social, political and physical impacts.
- Grants the flexibility needed to accurately and systematically integrate the vulnerability assessments of critical assets.
- Provides consistency between the State's approach while addressing the unique characteristics and attributes of the Aitkin County and its cities.

As part of the community's overall risk assessment, the consultant will provide an updated analysis of the natural, technological, and political hazard categories by elaborating upon and defining the specific types of hazards; identifying recent events that have occurred locally and/or regionally; updating the hazard profiles, parameters, and characteristics; assessing possible vulnerabilities not addressed in the previous version; determining probable scenarios; and modeling select hazards.

Subtask 2.1: Update & Identify Hazards

The consultant will help the county's planning committee identify and review all of the hazards that might affect the community, and will narrow the list to the hazards that most likely will impact the community. There is no one source for identifying which applicable hazards may affect the community. The following methods will be used where applicable:

The consultant will obtain this information through various avenues, including, but not limited to:

- (1) **Research of historical documents and data:** by accessing newspapers, historical societies, database searches, etc, the consultant will gather records that may contain dates, magnitude of the events, damage, and further evidence of the past natural disasters in the community.
- (2) **Review of existing authorities, ordinances, plans and reports:** To ensure Aitkin County is covering all of the

possible hazards, the consultant will collect and review plans and documents that may have information on multi-hazard planning. Transportation, environmental, dam, or public works reports or plans are examples of documents that may contain relevant information. These documents will be reviewed to identify a list of disasters and potential issues that have occurred in the past. In addition, local comprehensive plans, land use plans, capital improvement plans, as well as building codes, land development regulations, and flood ordinances will be reviewed to identify hazard provisions that indicate the presence of local hazards.

(3) Coordination with emergency managers and key stakeholders: In close coordination with the Aitkin County's staff and committee, the consultant will make efforts to coordinate with the local, state, and federal governments to obtain hazard information, development trends, known vulnerabilities, and past experiences mitigating, responding, and recovering from disasters. Coordination efforts will include:

- Interview pre-identified local officials and pre-identified FEMA officials
- Contacting other resources such as Natural Hazards Center, Hazard Disaster Center, National Weather Service, Association of State Floodplain Managers, International Association of Emergency Managers, etc.

Coordination efforts will be accomplished using the following methods:

- Documented telephone calls and interviews
- E-mail correspondence
- Meetings (if necessary) -- in conjunction with previously scheduled client meetings -- with key stakeholder representatives

Subtask 2.2: Profile Hazard Events

Utilizing the inventory of local hazards provided by Aitkin County and other relevant sources, the consultant will assist in re-identifying and updating procedures and techniques of the county to quantify all-hazard events depending on their location, duration, intensity, and severity. Because each hazard type has unique characteristics that can impact Aitkin County in different ways based on geography, development, population distribution, economic significance, and systematic functions, the information gathered in this step will help determine the assets in the hazard areas that will be inventoried in the next task.

2.2.1 Obtain and create a base map

The consultant will identify and collect the best available base map information to show the areas that are subject to various hazards. The GIS base map data from the county will be used in conjunction with regional and statewide data. The base map will be as complete, accurate, and current as possible and will use infrastructure data such as roads and buildings drawn on photo information in geographic relationship (to scale) with measurable horizontal distances. The county map will provide a common frame of reference to show human and structural assets that should be inventoried.

2.2.2 Obtain hazard event profile information

Using the information obtained in the previous tasks, the consultant will determine the return frequency and natural hazard occurrences for each hazard. The hazard frequency will be based on the most commonly available information for a particular hazard. A more comprehensive hazard profile that considers all possible events, such as floods with different probabilities, may also be included for specific hazards.

2.2.3 Record hazard event profile information

The consultant will record the information for each hazard profile. The task will include documenting the source of the various maps such as the Flood Insurance Rate Maps (FIRMs), revisions to the risk assessment matrix, and recent natural hazard occurrences.

Subtask 2.3: Inventory Assets

Using GIS data management and analysis, an inventory of the Aitkin County's assets will be developed based on the five categories defined in DHS/FEMA protocol. This inventory of assets will assist in identifying areas that are subject to the various natural hazards in the subject area. These five categories consist of:

- Essential Facilities
- Transportation Systems
- Lifeline Utility Systems

- High Potential Loss Facilities (financial institutions, government buildings, etc.)
- Hazardous Waste/Materials Facilities

An initial inventory will use the baseline data contained in HAZUS-MH and supplemented by GIS data provided by the Aitkin County. The effort includes developing and mapping a general inventory of assets in the community. Using a base map, the consultant will identify the assets inside areas for each identified hazard that has a defined physical geographic boundary.

The consultant will review the inventory to ensure that all facilities, infrastructures, and sectors critical to the continuity of government, operations, and services provided by Aitkin County are included in the mitigation planning process. If data is insufficient or clarification is needed, a representative of the consultant will contact the client and/or client representative to discuss additional efforts that will be required, as well as possible implications to this project scope and schedule.

Subtask 2.4: Estimate Losses

The consultant will conduct four GIS-HAZUS for river flooding and other hazard scenarios selected by the county. The consultant will deliver draft reports that summarize the natural, technological, and political hazard profiles and the HAZUS-MH modeling (or other modeling program) scenarios to be performed by the consultant. The draft report is to ensure that the consultant and Aitkin County are in agreement on the HAZUS-MH modeling (or other modeling program) and GIS analysis scenarios that will be conducted.

The loss estimation process will utilize HAZUS-MH modeling (or other modeling program), GIS analysis, historical disaster data and information, and quantitative analysis to estimate the losses to natural and human-induced hazard events in a defined area. Where applicable, the consultant will use HAZUS-MH structure loss estimation tables with engineering expertise and previous disaster experience to determine the direct loss and primary indirect loss from those hazard events identified in the draft reports. The analysis reports will include the following:

- Estimation of the losses to structures
- Estimation of the losses to contents
- Estimation of the losses to structure use and function
- Projection of human losses
- Estimation of the primary direct and indirect loss

The consultant will use HAZUS-MH (or other modeling programs) and GIS analysis to determine which individual assets could sustain the largest potential losses, by adding the structure loss, content loss, and function loss for each asset to determine the total loss. This process will produce the following:

- Calculation of the losses to each asset
- Calculation of the estimated damages for each hazard event
- Creation of a map that shows a composite of the areas of highest loss

The objective of the risk methodology is to devise a method to compare and evaluate which hazards are the greatest threats to Aitkin County. The consultant committee will employ a proven method that has the ability to be uniformly applied to all of the community's hazards. Differences in the hazard's impact area, amount and severity of damage, duration of the event, and direct and indirect economic impacts make it difficult to develop empirical values that can be universally applied to each hazard category. In this subtask, we will leverage our experience to incorporate the numerous other planning considerations that are not captured by GIS hazard loss programs alone. The intent is to provide Aitkin County with a hazard loss assessment that is relevant to the attributes of the county and its cities.

2.4.1 Integrate with Significant Future Development Trends and Considerations

Future development trends and special considerations (i.e. historical property, environmentally sensitive areas, etc.) can have a significant impact on a community's risk to hazards. The impact of these trends and special considerations on the community's risk is directly proportional to the size of the community, community values, and the significance of the development trend or special consideration. With input from members of the Hazard Mitigation Planning Committee and key stakeholders, the consultant will analyze the affect of any significant regional future development trends and special considerations identified by Aitkin County to determine their positive or negative impacts on the hazard profiles, inventoried assets, or the projected loss.

2.4.2 First Draft of Updated Risk Assessment Section of Multi-Hazard Mitigation Plan

The consultant will provide Aitkin County a draft submittal of the All-Hazard Risk Assessment Report for review and comment. The consultant will schedule and conduct a meeting with the County Hazard Mitigation Planning Committee and general public to provide a briefing of the updated risk assessment in order to build consensus and buy-in from the group. Once these documents are reviewed, we will incorporate changes into the final All-Hazard Risk Assessment Report. A copy of the report will also be provided to the SHMO to be incorporated into the statewide risk assessment. The report will be included in the next phase of the hazard mitigation planning process. The consultant will provide Aitkin County with all non-proprietary HAZUS-MH and GIS products.

Projected Completion: 6 Months

Task 3: Prioritize Mitigation Actions

Effective mitigation actions and preparedness activities are complementary of one another and provide a holistic approach that aligns multiple state and federal directives and funding. The strategies proposed by the consultant will ensure compliance with DMA 2000. The consultant will provide technical support to the six hazard mitigation and preparedness categories, as defined by FEMA: prevention, property protection, public education and awareness, natural resources protection, emergency services and structural projects.

Identifying and prioritizing mitigation actions are the fundamental components of a Multi-Hazard Mitigation Plan. In the previous tasks, hazards were redefined, vulnerabilities were reassessed, and the losses were estimated.

Development of a prioritized and updated list of mitigation actions will be developed that will reduce future risks and losses. This task will assist the consultant in the following:

- Update goals and objectives
- Identify and reevaluate mitigation actions
- Update the capabilities assessment
- Update mitigation strategies

Subtask 3.1: Review and Analyze the Results of the Hazard Profiles and Loss Estimation

Information revealed in the updated hazard profiles and loss estimation will be used to develop clear mitigation goals. The consultant will attend the planning meeting and review the results of the previous risk assessment planning process that outlined the updated hazard profiles with details on the causes of hazards, the likelihood of occurrence, the potential severity, and the extent of areas affected. The consultant will review the loss estimation dollar amount of damages for particular hazard events, as well as related economic information like business interruption and revenue losses.

3.1.1 Review the finding of the county's risk assessment

The consultant will participate in a workshop to review the risk assessment report and composite maps. The emphasis of the workshop is knowledge and understanding of the causes of the hazards and better preparation for determining mitigation actions.

3.1.2 Develop a list of problem statements based on these findings

The county planning committee will take the results of the risk assessment and develop a problem statement to clearly point out which hazard to address first.

Subtask 3.2: Review the Mitigation Plan and Objectives

A multi-hazard mitigation plan defines mitigation goals and objectives for the community. Based upon the hazard profiles, hazard loss, vulnerability and risk assessment, the local planning committee will update mitigation goals that articulate the county's desire to protect people and structures, reduce the cost of disaster response and recovery, and minimize disruption to the community following a disaster.

The consultant will prepare the updated Mitigation Goals and Objectives as identified by Aitkin County. Additionally, The consultant will schedule and conduct a meeting to review draft mitigation goals and objectives with the County Hazard Mitigation Planning Committee and the general public. The consultant will solicit feedback in order to gain buy-in and consensus. The local planning committee, with assistance from the contractor, will also update mitigation objectives that define strategies or implementation steps to attain the identified goals.

Subtask 3.3: Identification and Reprioritization of Mitigation Actions

Mitigation actions consistent with the goals and objectives that were previously defined will be reevaluated. The hazard mitigation plan defines the action plan to reduce community loss from future hazard events. In order to update a plan that can be integrated into other emergency management operational phases, it is important to acknowledge the interdependencies of mitigation with response, recovery, and preparedness functions of emergency management. The consultant will explore mitigation actions relevant to:

- Prevention
- Property protection
- Public education and awareness
- All resources protection
- Emergency services
- Structural project

The mitigation actions updated will be evaluated to determine the action's effectiveness and efficiency for preventing, protecting, and reducing damages to the community's assets from natural hazards. Evaluation of these mitigation actions will be based on, but not limited to, the following criteria:

- Technical feasibility
- Economic benefits
- Environmental impacts
- Community acceptance
- Staffing and funding
- Maintenance needs
- Political support
- Legal authority
- Historical projects of similar scope or magnitude

Subtask 3.4: Review the Implementation Strategy

The implementation strategy identifies how Aitkin County proposes to achieve its Mitigation goals and objectives. The mitigation action implementation strategy will redefine, identify, and confirm mitigation actions, partners, resources, and schedules.

The consultant will prepare a draft Mitigation Implementation Strategy for review by the County Hazard Mitigation Planning Committee. Once reviewed, The consultant will incorporate changes to the newly updated Mitigation Implementation Strategy.

Projected Completion: 2 Months

Task 4: Complete Multi-Hazard Mitigation Plan Update

The County Hazard Mitigation Planning Committee, with assistance from the consultant, will prepare the Updated Mitigation Plan. The County will assume authorship of the updated plan, and can rely on the consultant's partnership throughout the process. Although the analyses and compilation of the updated plan will largely be completed by the consultant, the county will exercise final decision regarding the outcome of the plan and will be responsible for any additional updates. Final drafts will be delivered to Aitkin County and relevant stakeholders. These deliverables will integrate with the business flow at Aitkin County and be compliant with Federal, State and local regulations.

Subtask 4.1: Write, Print, and Distribute Draft of the Updated Plan

The consultant will prepare a draft of Aitkin County's Updated Multi-Hazard Mitigation Plan that will document the updated mitigation planning process and address the elements required by 44 CFR 201.6(d)(3).

The consultant will assemble information, comments, and reports from the previous tasks. Informational databases, graphics, and maps will also be included in the final plan update in order to visualize the geographic, functional, or systematic relationship between the loss estimation and the mitigation activity chosen. The implementation strategy and overall plan will be supported by a set of plan maintenance and updating procedures for the county. These

procedures will be incorporated into the final report. The Plan Maintenance section will ensure that the document continues to be viable and is compliant with both state and federal directives.

ATTACHMENT A

To meet DMA 2000 requirements, the document will include a description of the update process; a definition of the planning area identifying who was involved in the process, how they were involved, and methods of public participation that were employed; and a detailed description of the decision-making and prioritization process. The consultant will print the draft plan and distribute the copies to the planning committee members for review. The consultant will also provide ongoing limited technical support in preparing compliance for federal regulations at no extra cost.

Subtask 4.2: Review the Documented Planning Process

The county planning committee will meet (Meeting 5) to review the draft of the update. The consultant will also review the final revisions from the planning committee.

Projected Completion: 2 Months

Task 5: FEMA/State Review

The consultant will incorporate all of the committee's final revisions and will print thirty (30) copies, and a digital version of the plan to submit to Aitkin County within two (2) weeks after the receipt of final review comments. A document showing how all mitigation planning requirements were met will also be submitted.

The county will then submit copies of the final draft and a requirements document to the Minnesota Homeland Security and Emergency Management Agency (HSEM) for approval. HSEM will then submit the plan to FEMA after all requirements are met. The county and the consultant will revise the plan to meet requirements throughout the review process.

When approved "pending local adoption" by FEMA, the Aitkin County Mitigation Planning Committee will present the plan before the County Commissioners for formal adoption. The county resolution will be sent to HSEM for processing. FEMA will issue a letter of approval. The letter of approval for the county concludes the scope of work for this project.

A final copy of the plan with the resolutions of adoption will be sent to HSEM for FEMA's approval of the cities to participate in the Hazard Mitigation Assistance program. The final plan should be received by HSEM no later than six months after the county was approved.

Projected Completion: 4 Months

Total Project Duration : 18 Months

D. BUDGET DETAIL

CHMENT A

List all eligible costs associated with the writing or updating of this plan. Do not include contingency costs in the budget. Local match may be cash, in-kind, or a combination of both. Only Direct Project Costs are allowed. The items listed below are examples of eligible costs related to mitigation planning. Multiple lines may be needed to detail a variety of participating staff.

ITEM	FEDERAL / LOCAL SHARE	QTY.	UNIT	UNIT COST	COST ESTIMATE
Consultant Services	Federal	1	each	\$25,500	\$25,500
Emergency Management Agency (EMA) Staff	Local	75	hour	\$30	\$2,250
Mitigation Plan Update Committee	Local	72	hour	\$30	\$2,160
City Staff	Local	150	hour	\$25	\$3,750
Supplies (see budget narrative)	Local	1	each	\$340	\$340
Total Cost					\$34,000
Federal (75%)					\$25,500
Local (25%)					\$8,500

1. Costs incurred prior to the date of the grant award are not eligible for reimbursement.
2. Applicant match salaries should include both base and fringe.
3. No federally funded salaries are allowed to be used as local match.
4. When calculating the Federal and Local cost share, the Federal share total must be rounded down to the whole dollar and Local share must be rounded up to the whole dollar.

D. BUDGET NARRATIVE

I. Contractual Planning Services:

A consultant will gather data for the plan, facilitate meetings, develop HAZUS-MH and GIS based lost estimates and revise the plan. The consultant will be involved with Tasks 1 through 5 as detailed in Section C. Scope of Work. The estimate for these services is \$25,500.00

Tasks	Hours
Task 1: Organize Resources	40
Task 2: Assess Risks/GIS Analysis	96
Task 3: Prioritize Mitigation Strategies	55
Task 4: Complete Multi-Hazard Mitigation Plan Update	50
Task 5: FEMA/State Review	26
Total	267

2. County and City Staff Contribution

ATTACHMENT A

The following county and city staff, are committed to participate in this planning process.

Committee Meetings:

Mitigation Plan Update Committee	$\$30.00 \times 3 \text{ hours} \times 4 \text{ members} \times 5 \text{ meetings} =$	$\$1800.00$
City Staff	$\$25.00 \times 4 \text{ hours} \times 5 \text{ meetings} \times 6 \text{ cities} =$	<u>$\\$3000.00$</u>
	Total	$= \$4800.00$

Agency Coordination:

Coordination with the consultant includes responding to questions, information requests, review of invoices, interaction with the Mitigation Plan Update Committee, and contacts with other municipal and county officials to obtain information.

EMA	$\$30.00 \times 35 \text{ hours} =$	$\$1050.00$
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Risk Assessment:

Office research and small group meetings are utilized to gather and verify information and to also identify critical facilities.

Mitigation Plan Update Committee	$\$30.00 \times 3 \text{ hours} \times 4 \text{ members} =$	$\$360.00$
City Staff	$\$25.00 \times 5 \text{ hours} \times 6 \text{ cities} =$	<u>$\\$750.00$</u>
	Total	$\$1110.00$

Mitigation Projects / Prioritization:

County Staff are asked to participate in a subcommittee to develop a prioritization strategy. Concurrently, county and municipal staff are also asked to meet among their jurisdictions to develop a list of mitigation projects before the third and fourth Committee Meetings. The county EMA staff will work with each of the municipalities.

EMA	$\$30.00 \times 2 \text{ staff} \times 20 \text{ hours} =$	$\$1200.00$
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Total County and City Staff Contribution: $\$8160.00$

3. Supplies

County officials estimate the following supplies will be used during the planning process:

Binders	$25 @ \$7.00/\text{unit} =$	$\$175.00$
Pads	$25 @ \$1.50/\text{unit} =$	$\$37.50$
Pens	$25 @ \$0.50/\text{unit} =$	$\$12.50$
Markers	$25 @ \$1.00/\text{unit} =$	$\$25.00$
Photocopies	$600 @ \$0.15/\text{unit} =$	<u>$\\$90.00$</u>
Total		$\$340.00$

CERTIFICATION

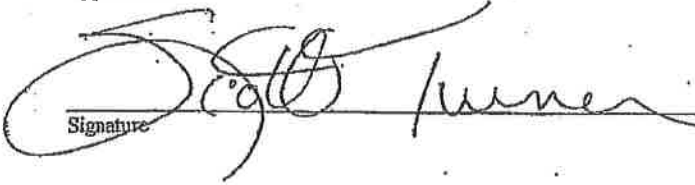
ATTACHMENT A

I certify to the best of my knowledge and belief that the information provided in this application and supporting documentation is true and correct. I also have the legal authority to apply for assistance on behalf of the applicant. It is also understood that no work will begin until a sub-grantee agreement is fully executed.

Signed for the applicant:

Scott Turner, Aitkin County Sheriff

Typed name



Signature

11/7/12
Date