



Idaho Department of Water Resources
Bureau of Resource Protection
322 East Front Street
P.O. Box 83720
Boise, ID 83720-0098

Idaho Risk Mapping, Assessment and Planning

RiskMAP

Increasing Resilience Together

Multi-Year Business Plan FY2009 - FY2014

August, 2011

A product of the
Cooperating Technical Partners Grant

EMS-2010-GR-0017



Table of Contents

Idaho Risk Mapping, Assessment and Planning (Risk MAP)	3
Executive Summary.....	3
Purpose	3
Intent.....	3
Role	3
Background	4
Statement of Work	4
Vision.....	4
Goals	5
Objectives: Summary Narrative	5
1. Aerial Topographic Mapping Project Management.....	5
2. Floodplain Technical Mapping Activities (TMA)	5
3. Community Risk Assessment and GIS Technical Support	6
4. Outreach	6
5. Project Management and Staffing	6
Strategy: Matrix	7
Resource Needs	8
Future Activities	8
Reference Materials.....	9
Program Diagrams	10

Idaho Risk Mapping, Assessment and Planning (Risk MAP)

Risk MAP is a 100% federally funded competitive grant program authorized by the U.S. Department of Homeland Security (DHS), administered by Region X (ten) of the Federal Emergency Management Agency (FEMA), and awarded to the State of Idaho Department of Water Resources (IDWR) under the Cooperative Technical Partner (CTP) Project Management Grant (EMS-2010-GR-0017). To this end, FEMA Region X distributes DHS appropriations from Congress to fund Risk MAP mapping programmatic activities.

Executive Summary

Beginning in Fiscal Year (FY) 2009, FEMA initiated the Risk MAP program. FEMA's vision for the Risk MAP program is "to deliver quality data that increases public awareness and leads to mitigation actions that reduce risk to life and property." To achieve this vision, FEMA will transform its traditional flood identification and mapping efforts into a more integrated process of accurately identifying, assessing, communicating, planning and mitigating flood risks, according to Procedure Memorandum No. 59 (July 23, 2010). Datasets created by Risk MAP also represent a highly valuable commodity for emergency operations and floodplain administrators in Idaho. This Idaho Multi-Year Business Plan (2010-2014) constitutes the framework for accomplishing Risk MAP business in Idaho.

Purpose

Flooding is the most costly, most frequent, most predictable type of natural disaster in Idaho. In order for communities to make informed risk management decisions, a consistent risk-based approach to mapping natural hazards is necessary. Recognizing the connection between reliable flood maps and flood damage is essential for protecting Idaho's persons and property, which constitutes the central purpose of Risk MAP: to deliver quality data that increases public awareness and promotes local government action that reduces risk to life and property. Idaho Risk MAP activities will initially focus on delivering flood hazard data through grant funded projects, but Risk MAP is not limited to flood hazards alone.

Intent

The CTP Manager will support local communities and FEMA Region X by executing an integrated programmatic approach to mapping flood hazards, performing risk assessments, informing hazard mitigation plans and acquiring detailed topographic data through grant funded project activities. The CTP Manager will submit project-level grant proposals to FEMA in FY2010 to 1) provide Risk Assessment deliverables and 2) Manage LiDAR acquisition projects in Idaho and begin managing Discovery projects in FY2011 while building the program to full DFIRM production capacity. Idaho Risk MAP activities will continue to evolve, innovate, and excel in providing Idaho flood hazard maps.

Role

The CTP Manager will act on behalf of the State of Idaho as an intermediary between local communities and FEMA in the capacity of Project Manager. The CTP Manager will create collaborative and sustainable digital products while working with local governments, Idaho Bureau of Homeland Security (BHS), FEMA, academia and other stakeholders. The role of the CTP Manager is to manage the projects, personnel, monies, and activities of the program and grant projects awarded from FEMA.

Background

The State of Idaho has historically administered National Flood Insurance Program (NFIP) and made flood insurance available to private property and business owners. From 1974 until the mid 1980's floodplain management was part of Idaho Department of Water Resources core mission. In the mid-1980's, language in the Water Plan, the document which directs the agency's focus, was changed and local government was given the responsibility of floodplain management. Idaho's "Local Land Use Planning Act" (LLUPA) requires the Planning and Zoning Commission of every city and county in the State to have a comprehensive plan that addresses floodplains, watersheds and floodplain hazards (Title 67-6508). IDWR remains the administrative agency that works with FEMA Region X overseeing the NFIP and CTP activities at the state level. The authority for local floodplain management originates from Idaho Statute Title 46 "Militia and Military Affairs". The "State Disaster Preparedness Act" Chapter(s) 1020-1024 affirms the NFIP and associated duties in Idaho. Recent flood hazard mapping projects were developed as part of the Idaho Flood Hazard Mapping Plan completed in July 2002. The Flood Map Modernization (MapMod)



project funded a Map Modernization Coordinator (MMC) at IDWR from 2005-2009. The project resulted in eight communities adopting Digital Flood Insurance Rate Maps (DFIRMs). MapMod also created an interactive web-based mapping application which assists Idaho's communities by providing enhanced access to floodplain management information, flood mitigation resources, and flood preparedness. The web based mapping application is a huge success because it provides greater ease for local floodplain managers and the public through greater governmental transparency and increased availability of flood hazard maps. The success of MapMod brought to the forefront the greater need for



updated flood hazard maps. Risk MAP (2009-2014) was created to replace the efforts of MapMod (2005-2009) and to update the Flood Insurance Rate Maps and address other hazards across the nation with new goals intending to reduce risk. FY2009 was the transition year from MapMod's data coordination and gathering tasks to Risk MAP's data generation by managing projects using conventional and emergent technology to update DFIRM's. Risk MAP seeks to implement the Idaho Hazard Mitigation Plan sections 2010-03 creating a HAZUS User



Group and 2010-08 to improve analysis of flood, landslide, seismic and wildfire hazards, obtain new and compile existing LiDAR data for populated areas of Idaho.

Statement of Work

A statement of work is a clear, complete, and logical approach to describing a work plan for implementing a project that can reasonably be followed to produce a deliverable product. The CTP Manager will take action to implement the foregoing vision, goals, objectives and strategic Business Plan in order to develop project-level grants that implement Risk MAP.

Vision

A vision statement defines the preferred future that the business plan seeks to create. Risk MAP seeks to obtain and communicate flood hazard data that increases public awareness and leads to action that reduces risk to life and property by managing Risk MAP project

grants awarded to the CTP from FEMA that will: 1) identify existing flood hazard data; 2) gather and create new flood hazard data; 3) post flood hazard data for public use; 4) integrate flood hazard mapping, mitigation and the NIFP; and 5) work at the community level to create data crucial for emergency operations managers during a natural disaster.

Goals

Goals are broad, long-range (FY2009-FY2014) directional statements that define how Risk MAP accomplishes its vision statement. Risk MAP will concentrate on the following areas as a continuance of FY2009 projects and commitments until other priorities are determined. The goals of the CTP Manager for Idaho Risk MAP are:

1. Align local community, state, and FEMA visions for hazard mapping and risk reduction through sound program planning and project grant management;
2. Manage specific Risk MAP grant product development and delivery to FEMA;
3. Encourage risk understanding and reduction at the local level;
4. Build capacity of local governments to leverage hazard mitigation mapping;
5. Coordinate Risk MAP activities with floodplain management activities conducted by the State of Idaho, FEMA Region X, and other mapping partners;
6. Maintain and grow partnerships with FEMA for funding substantial portions of floodplain mapping costs in Idaho.

Objectives: Summary Narrative

Objectives are activities that are realistic targets and indicate the degree of success in accomplishing a goal. Fully developed objectives will be delivered to FEMA as project proposals that will contain a specific project strategy, defined deliverables, timelines, benchmarks of success and a budget to perform the project within the scope of that grant.

1. Aerial Topographic Mapping Project Management

This objective enables the State of Idaho to acquire the highest quality commercially available digital elevation data for flood hazard mapping. The CTP will act as Project Manager for the six LiDAR acquisition projects currently sequenced over the planning period and any additional projects yet to be sequenced. The Idaho LiDAR Consortium (ILC) is currently drafting a Floodplain LiDAR Technical Specification for the Idaho CTP based on the standards set forth in Procedure Memorandum 61 (July 23, 2010), Appendix A of the FEMA Guidelines and Specifications for Flood Hazard Mapping Partners (August 11, 2010), US. Geological Survey (USGS), the Puget Sound LiDAR Consortium (PSLC), and the Oregon Department of Geology and Mineral Industries (DOGAMI). The Idaho Floodplain LiDAR Technical Specification will comply with and add to the regional LiDAR body of data. The benefit of this objective is realized by enabling the State of Idaho to efficiently manage contracts and facilitate partnerships with local governments and academia in the acquisition of enhanced digital elevation datasets for flood hazard mapping.

2. Floodplain Technical Mapping Activities (TMA)

This objective enables the State of Idaho to assist with and oversee the flood hazard technical mapping activities associated with updating Idaho floodplain maps. The CTP Manager's role is to serve as the intermediary between the local community

and FEMA. The CTP Manager will actively engage in the sharing, transmission, and development of data to support the local community and FEMA. The CTP Manager will create Idaho Discovery deliverables, in accordance with existing Guidance Documents, that will be used in future flood hazard mapping activities in which Idaho will take the lead role in managing. The benefit of this objective is realized by enabling the State of Idaho to participate in the DFIRM production process.

3. Community Risk Assessment and GIS Technical Support

This objective enables the State of Idaho to provide high-level Geographic Information System (GIS) expertise to communities of all sizes. The CTP Manager will oversee GIS staff responsible for meeting with the local community to ascertain the extent of the local data inventory, facilitate access to other data repositories, and acquire or create data to be used as level 1, 2 or 3 inputs in the risk assessment model Hazards United States, Multi Hazard version 4 (HAZUS), if possible. These risk assessment products provide the local community and BHS with detailed flood loss data to update All Hazard Mitigation Plans (AHP) during the regular update cycle. GIS data creation may include building footprints within the vicinity of the floodplain, building attribute data, Letter of Map Change (LOMC) locations, GIS data desired by the local community to better manage floodplains, and data for the BHS Virtual Information Portal (VIP) for emergency operations. The benefit of this objective is realized by strengthening the connection between hazard mapping, mitigation, NFIP and emergency response at the local government level.

4. Outreach

This objective enables the State of Idaho to promote, advocate, and advance the discipline of floodplain management and the interests of local communities, IDWR, and FEMA Region X. The CTP Manager will seek out and engage decision-making GIS groups, including but not limited to: BHS VIP; Idaho Geospatial Council (IGC); Idaho HAZUS User Group (IDHUG); NFIP; Idaho Framework Technical Working Groups (TWG); and the GIS Subcommittee of the Regional Interagency Steering Committee (RISC). Outreach may also include other decision-making groups dealing with floodplain policy, land use, information technology, and hazard mitigation. The benefit of this objective is realized by unifying local, State, and federal efforts to increase the understanding, preparedness, and mitigation of natural hazards and to build floodplain management and mapping capacity at the local level.

5. Project Management and Staffing

IDWR has established a team to manage complex programs and will execute strategies to implement Risk MAP; perform necessary analysis of the Coordinated Needs Management Strategy (CNMS); store the FIRM/DFIRM/LiDAR/HAZUS data; steward enhanced digital topographic data; maintain the online flood hazard interactive mapping System; and, update the Idaho Risk MAP business plan on an annual basis. Additionally, IDWR will create security protocols for protecting flood hazard information, by using Best Security Practices such as: access restriction, encryption, physical isolation and backup security. The benefit of this objective is realized by partnering with the State in managing Idaho's floodplains.

Strategy: Matrix

Strategies are activities that are sufficient to obtain an objective. Successful strategies often remove obstacles, control a critical success factor, create or simplify processes, enable staff, initiate a business intelligence project, or create quantitative or qualitative tracking protocols. The following strategies enable the CTP Project Manger to compete for Risk MAP project grants as part of the overall Risk MAP program described in this plan.

1	Aerial Topographic Mapping (ATM) Project Management
1.1	Risk MAP Project Management
1.2	RFP, SOQ and review SOW
1.3	Service Contract
1.4	Oversight and technical direction
1.5	Collaboration among mapping partners, including academia and cost-sharing
1.6	QA/QC
2	Floodplain Technical Mapping Activities (TMA)
2.1	Floodplain Mapping Discovery
2.2	DFIRM Production
2.3	Review Floodplain Mapping Study
2.4	Continued local government and FEMA Support
3	Community Risk Assessment and GIS Technical Support
3.1	Provide GIS expertise to community
3.2	Create community-level data to aid in floodplain management
3.3	Identify existing inputs for Level 1, 3 or 3 HAZUS Models
3.4	Identify community-level strategy to create more inputs for HAZUS
3.5	Create level inputs for Level 1, 2 or 3 HAZUS Models
3.6	Perform Risk Assessment
3.7	Compare Risk Assessment with Community All Hazard Mitigation Plan
3.8	Communicate flood risk
4	Outreach
4.1	GIS Policy Formation
4.2	Idaho LiDAR Consortium (ILC)
4.3	Idaho HAZUS Users Group (IHUG)
4.4	Idaho NFIP support
4.5	Idaho Silver Jackets
4.6	Regional Interagency Steering Committee (RICS) GIS Subcommittee
5	Project Management and Staffing
5.1	Project Management
5.2	Maintain Internet Mapping Services
5.3	CNMS Maintenance
5.4	Data Resource Management
5.5	Load new DFIRMs and archive previous instrument
5.6	Idaho Risk MAP business plan annual review
5.7	Report to FEMA Region X

Resource Needs

Staff
Travel
Training
Other

Future Activities

The CTP Manager will prepare detailed project proposals and submit them to FEMA Region X as Mapping Activity Statements. Developing hazard model data at the State level adds value to the corporate data-holding portfolio of local, State and federal partners, and providing this data to local communities is the most efficient and effective way to protect property and save lives at present time.

1. Therefore, the CTP Manager will prepare and submit detailed project management proposals to FEMA describing the Flood Risk Products that IDWR will prepare for Idaho communities in Risk MAP project areas, to aid in the flood hazard preparedness of Idaho Communities and continued mapping of Idaho flood hazards.

IDWR has a time honored GIS technical competency and the necessary connections to affiliates that share resources and promote interdependencies within the State, in addition to the highly successful flood hazard interactive mapping application.

2. Therefore, the CTP Manager will prepare and submit a detailed project management proposal to FEMA for LiDAR acquisition in Idaho floodplains and create an enhanced digital topographic and depth grid repository at IDWR, to aid in the production of DFIRMS, the continued mapping of Idaho flood hazards and the proficient use of this highly valuable yet often obscure data.

The CTP Manager has a strong presence in local, regional, State, and federal government outreach activities, including technical workshops, public meetings, and formal and informal presentations. These outreach activities are channels for building capability and creating capacity for future mapping project involvement.

3. Therefore, the CTP Manager will conduct outreach activities at local, state and federal levels to aid in the success of continued mapping of Idaho flood hazards.

The CTP Manager will continue training to aid in the coordinated approach to the continued mapping of Idaho flood hazards. FEMA offers many classes to IDWR staff, some without cost, that enable the program to increase its capacity for outreach. Previous programmatic self-evaluation identified actual floodplain mapping, hydrologic and hydraulic studies, and flood hazard modeling as underdeveloped capabilities at the State level. Subsequent updates and revisions to this plan should take a systematic approach to continuously developing Risk MAP.

Program Diagrams

What is Risk MAP

The Risk MAP Vision, Goals, Performance Measures and Solution support activities across the risk analysis lifecycle

