2014 Ketchikan Study Partnership Agreement

This Risk MAP Partnership Agreement is used to document the regulatory and non-regulatory tools that the community involved in a Risk MAP Project will receive, specify mitigation technical assistance to be provided, identify roles and responsibilities for all parties involved, list the data to be provided with associated deadlines, define expectations of the study results, and provide a projected timeline and an explanation of what is expected from project partners at each major milestone.

The Agreement provides documentation of FEMA's commitment to the City of Ketchikan and Ketchikan Gateway Borough and the commitments of the Community to the Risk MAP Project. By signing the Agreement, the stakeholders and project partners acknowledge that they understand and commit to the project scope.

Working together on a Risk Mapping, Assessment, and Planning (Risk MAP) project, FEMA Region X, the State of Alaska including the Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs and the Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management (hereafter referred to as "the State"), and the City of Ketchikan and the Ketchikan Gateway Borough (hereafter referred to as "the community") will identify, assess, communicate, plan for, and mitigate risk.

The information provided by this project can be used by the Community to enhance their hazard mitigation plans, make informed decisions to improve resilience to natural hazards, and raise awareness about local risks to hazards so that they are better informed and prepared to take actions to reduce their risk.

This Partnership Agreement outlines how these project partners will achieve success in key activities and goals:

- FEMA, the State, the Community, and STARR, will commit to maintain open communication and a productive dialog during the Risk MAP project,
- FEMA and STARR will provide frequent and regular information on project progress, and opportunities for in-person discussions and feedback on results,
- FEMA, STARR, and State with Community support, will provide non-regulatory risk assessment tools, information and findings, communications plan, and planning support over the course of the project,
- FEMA and the State will support the Community by capturing community needs for how the project outputs will be incorporated into ongoing activities in order to reduce risk and build a more resilient community.

The RiskMAP Project will consist of the following deliverables:

- Updated flood insurance study and digital flood insurance rate maps for the entire community to include 34 miles of coastline, 3.19 miles of detailed riverine modeling and 0.8 miles of redelineation
- Risk Assessment products to include changes since last FIRM, 1% annual chance flood depth grid for coastal and approximate riverine areas and a BFE+ grid for coastal areas
- Multi-hazard risk report to include detailed Hazus analysis for flood and earthquake using local parcel/assessors information
- Mitigation planning technical assistance
- LiDAR data including las files, bare earth digital elevation model, and project reports
- Trainings

Roles and Responsibilities

FEMA, STARR, and the State will provide officials from the Community with regular project status updates, the mapping and risk assessment products described below, and provide assistance with outreach to increase local awareness of multi-hazard risk. These efforts will better enable the Community to take action to reduce risk through the adoption of the maps, development or enhancement of mitigation plans, and increased communication with citizens concerning their natural hazard risk and the steps they can take to mitigate that risk. The State will provide continuity, coordination and support throughout the Risk MAP project. Community will provide input and updates throughout the project to ensure that the information is meeting the goals of this Agreement.

Communication and Coordination

Achieving Risk MAP's goal of reducing the Nation's vulnerability to risk requires clear, consistent, and candid communications. These communications need to reach local officials in Community where individual constituents need information to take steps to protect themselves from prevailing hazards. To accomplish this, the project partners will maintain open lines of communication and establish a consistent flow of information.

FEMA, STARR, and the State will:

- Provide quarterly reports outlining the current project status, changes to future study status, key accomplishments to date, identified risks, and next steps via e-mail to each community through the floodplain administrator and Chief Executive Officer.
- Enhance the Community's ability to communicate about hazards and associated risk to people who live and work within their Community and the coastal area by providing templates and outreach materials for local use, quarterly updates on project progress, and recommendations for implementation upon request.
- Contact the Community at least two weeks in advance of a proposed meeting date via email.

FEMA, STARR, and State will:

- Initiate coordination with the other project partners to schedule, plan, and hold a minimum of three meetings (in person or via webinar) during the life of the project :
    - **Flood Risk Review Meeting:** To be held following the development of engineering analysis and draft mapping; the intent of this meeting is to provide local officials the opportunity to view and comment on drafts of the engineering analyses produced by FEMA prior to preliminary release of regulatory products and data.
    - **Final Community Coordination Officer (CCO) Meeting** To be held about a month after preliminary copies of the official Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) are distributed to the Community; the intent of this meeting is to discuss the results and presentation of the FIS. We will also discuss planning for a public meeting.
    - **Public Meeting/Open House:** FEMA will support an Open House/Public meeting organized by the community. The purpose of the open house is to provide the public an opportunity to review the maps and provide comments. FEMA and the State will coordinate with the community to determine the number of staff required for the meeting. The open house/public meeting may also be expanded into a multi-hazard workshop if the Community would prefer. The meeting could include experts on additional hazards including earthquake, tsunami, landslide, wildfire etc. depending on availability.
    - **Resilience Meeting:** To be held following the development of non-regulatory Risk MAP products and tools; the intent of this meeting is to provide local officials with the Risk Products described in this partnership agreement, review findings, and discuss how to incorporate this new information into existing hazard mitigation plans, land use plans, building codes, and mitigation efforts, etc.. Resources available from State and Federal governments and professional associations that support planning and implementation activities will be highlighted. The goal of the meeting is to identify mitigation actions to

be included in the Community hazard mitigation plan update which will ultimately encourage risk reduction.

Ketchikan is strongly encouraged to:

- Communicate desired timing and schedule for receiving ongoing study updates.
- Be responsible for planning, supporting facilitation, and advertising the public meeting.
- Share study concerns with project staff early and often to reduce miscommunication.

Risk Mapping Activities

A FEMA Risk MAP project identifies flood hazards, provides local floodplain management regulatory flood data, supports the National Flood Insurance Program (NFIP), and provides risk assessments, mitigation support and planning technical assistance for all natural hazards. Based on needs identified and/or validated by the State, the Community will receive the following datasets as part of this mapping project. (For more specific details of the scope of the mapping activities, please see the attached Ketchikan Project Summary).

FEMA and STARR will:

- Perform a detailed coastal flood hazard analysis including the collection of storm surge (coastal hydrology) and overland wave height analysis (coastal hydraulics), as well as floodplain boundaries for 1-percent and 0.2-percent-annual-chance (100- and 500-year) flood events. Updated detailed modeling will be completed for 0.99 miles on Hoadley Creek, 1.2 miles of Ketchikan Creek, and 1 mile on Schoenbar Creek. Redelineation using new LiDAR will be completed for 0.08 miles of Carlanna Creek. The draft maps will be completed in Summer 2015.
- Prepare and provide the regulatory **Flood Insurance Study (FIS) Report** document to the Community. A FIS is a book that contains information regarding flooding in a community and is developed in conjunction with the FIRM. The FIS, also known as a flood elevation study, frequently contains a narrative of the flood history of a community and discusses the engineering methods used to develop the FIRM. The study also contains flood profiles for studied flooding sources and can be used to determine Base Flood Elevations for some areas.
- Prepare and provide the regulatory **Flood Insurance Rate Map (FIRM)** map for all panels within the Community which identifies the Community's flood zones, base flood elevations, and floodplain boundaries. This map is used to determine where the purchase of flood insurance is required for properties with federally-backed mortgages. The preliminary FIS and DFIRM's are scheduled to be released in Summer/Fall 2015.
- Collect LiDAR in Spring/Summer of 2014. This data will be delivered to the community by Sept. 30th 2014.
- All of the above datasets will be in the in the North American Vertical Datum of 1988.
- Provide guidance, feedback, coordination and technical support throughout the Risk MAP Project Life Cycle.

The State will:

- Make FEMA aware of any potential risks to the data development or project progress, and act as liaison to the Community by providing information and resources upon request.

Ketchikan is strongly encouraged to:

- Provide any information that would affect the modeling of the 1% annual chance event such as topographic data, hydrology, models, study reports, high water marks, bridge data etc.
- Provide base map information to be included on the DFIRM including roads and community boundaries.
- Include the Risk MAP project as an agenda item in regular community meetings, and will make FEMA aware of any potential risks to project progress.

Risk Assessment Activities

Risk assessments allow Community to make informed mitigation, land use, and emergency management decisions by providing products and technologies that communicate and visualize risks. To provide the Community with information regarding risk associated with multiple hazards within the community, FEMA will work closely with the Community to produce the products and tools listed below. (For more specific details of the scope of the mapping activities, please see attached Ketchikan Project Summary)

FEMA and STARR will:

- Provide a **Changes Since Last FIRM** map and dataset that identifies areas where the Special Flood Hazard Area, floodway, and/or flood zone designations have changed since the previous flood study. Engineering factors that may have contributed to the changes such as data used and level of study performed will also be identified. Estimates of structures affected by the changes will be quantified and summarized to capture increases/decreases in known risk areas and enable local officials to better plan for outreach needs.
- Provide 1% annual-chance depth grids for coastal areas and approximate riverine analysis. Depth grids depict the depth of flooding at locations throughout a community and when combined with other information, such as first floor elevations, are invaluable in understanding risk.
- Provide areas of inundation associated with +1, 2, and 3 feet increase to the base flood elevation for coastal areas to be used for planning purposes to represent sea level rise. Elevation increase values can also be adjusted using local sea level rise data as requested by the community.
- Provide a non-regulatory **Risk Report** which include narratives on multiple hazards and risk exposure, and explains the risk assessment methodology and results for each community. The risk report will provide loss estimations using Hazus for flood, earthquake, and tsunami hazards. Flood depth grids and USGS ShakeMaps will be incorporated into the Hazus analysis. Local data will be added to Hazus for more accurate results. Other natural hazards will include a summary and an exposure analysis.
- Provide the **Flood Risk Database** which houses data collected, created, and analyzed during the project. This data can be used by the Community to recreate maps, develop reports and other products, and to perform additional analysis.
- Highlight areas where risk reduction actions may produce the highest return on investment.
- Provide the Community with technical assistance for HAZUS projects.
- Provide the Community with Areas of Mitigation Interest findings and recommendations based on best available data.

The State will:

- Support risk assessment data and product development as needed.

Ketchikan is strongly encouraged to:

- Provide local parcel/assessors data to FEMA to be included in the Hazus risk assessment by September 1, 2014
- Incorporate results from the risk assessment into the next hazard mitigation plan update.
- Provide additional data, beyond the Borough and City datasets, which should be included in the Hazus risk assessment.
- Incorporate Risk Assessment data and findings into existing and future mitigation plans and local land use programs

Disaster Response Activities

Following any disaster, Federal, State, and local government staff work to minimize loss to life and property and to provide resources and support to citizens in need. In addition, data collection activities can be an invaluable resource for planning mitigation projects to improve community resiliency to hazards and improve future disaster response.

FEMA and the State will:

- Provide the Community with any findings/recommendations resulting from the event, identify areas of mitigation interest and ultimately support the community in their recovery efforts.
- Support the Community in prompt disaster response by coordinating internally and providing resources.
- Provide the Community with suggested guidance for collecting and documenting this information.

STARR will:

- Use locally-supplied data to update or verify any ongoing study effort and provide the community with any findings\recommendations resulting from the event.

Ketchikan is strongly encouraged to:

- Provide FEMA with copies of photographs of areas affected by disasters,
- Document high water marks, perform damage estimates, and provide the collected data to FEMA.
- Pre -identify locations and public facilities eligible for disaster-related emergency measures that may lead to permanent changes in the floodplain (such as the replacement of culverts with bridges, alteration of watercourses, etc.).
- Notify FEMA of any disaster-related emergency measures taken that may have caused permanent changes in the floodplain

Mitigation Planning Activities

Mitigation planning support provides technical assistance, incentivizes risk reduction activities at the local level, and develops a program to monitor local mitigation efforts. The risk information developed during this project will provide local governments with analyses they can use to develop or update their existing mitigation plans. The Community can use this data to better identify risks and vulnerabilities associated with multiple hazards, evaluate the areas of high mitigation value, and develop long-term strategies for protecting people and property from future flood events. FEMA will offer mitigation planning technical assistance to cover the fundamentals of the requirements for Community to meet requirements established in 44 CFR Part 201.

FEMA will:

- Coordinate with the State and Community on mitigation planning.
- Assist planning teams with incorporating new coastal flood studies and risk data into the existing mitigation plan.

FEMA and the State will:

- Discuss with the Community how existing multi-hazard data and available tools can be used to enhance the hazard mitigation plan.
- Share mitigation planning and/or implementation best practices, provide information about resources available to support mitigation actions, and assist in the development of an action item list to facilitate mitigation activities.

The State will:

- Support FEMA and the Community by providing information, clarification, and resources to support mitigation planning efforts or obtaining funding, upon request.

Ketchikan is strongly encouraged to:

- Incorporate the new coastal flood study and risk assessment products into existing and future hazard mitigation plans.
- Update, maintain, and improve upon the Greater Ketchikan Area Multi-Jurisdictional Hazard Mitigation Plan which will expire on August 17, 2015.

- Actively participate in the mitigation planning process, by, at a minimum, considering and prioritizing mitigation projects that may support community resilience to flooding and other hazards.
- Inform FEMA and the State of new and emerging priorities for consideration in future studies.

Training Activities

FEMA, STARR, and the State will assist the Community by providing training and outreach materials as needed and requested. Training sessions and outreach materials may be targeted to the individual Community or to a general audience, as needed to meet the needs of this Partnership Agreement. FEMA will deliver outreach materials and schedule training sessions on topics identified by the Community.

No trainings identified.

Risk MAP Partnership Signature Page

Roles and Responsibilities

This Partnership Agreement represents a good-faith effort by all parties to share data, communicate findings, and plan mitigation activities to reduce the exposure of the citizens within the Community to hazard risk. **It is not legally binding.** The parties listed in the signature block below will collaborate on hazard identification activities and risk analysis products, and will consult with each other to integrate contributions into hazard identification efforts. It is intended to provide a common strategy to address hazards and increase resilience within Community.

FEMA Region X Risk Analysis Branch Chief
Tamra Biasco
Date: 2/18/14

FEMA Region X FM&I Branch Chief:
Mark Riebau
Date: 18 FEB 2014

FEMA Region X Engineer
Ted Perkins
Date: 2/18/2014

Regional Support Center Lead
Josha Crowley
Date: 2/18/14

FEMA Region X Risk Analyst
Kelly Stone
Date: 2/18/14

FEMA Region X Mitigation Planner
Kristen Meyers
Date: 2/18/14

FEMA Region X NFIP Specialist
Karen Wood-McGuiness
Date: 2/18/2014

Alaska Division of Community and Regional Affairs Director
Scott Ruby for:
Alaska State Risk MAP Coordinator, Sally Cox
Alaska State NFIP Coordinator, Taunnie Boothby
Date: 2/26/14

Cities and/or Community of:

Representative of: Ketchikan Gateway Borough
Name & Title: Dan Backhorst, Borough Manager
Date: 8/12/2014

Representative of:
Name & Title
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Attachment

Ketchikan Project Summary

The Ketchikan flood mapping project began in 2014 and is expected to extend through fall 2016. FEMA's Service Provider, the Strategic Alliance for Risk Reduction (STARR) is performing work on this project.

Project Milestones

Project milestones are projected deadlines for key tasks that must be accomplished in order to complete work on a Risk MAP Project. They serve as indicators for progress and as the basis for planning future Risk MAP meetings. All project milestones, however, are subject to change due to changes in scope, delays in data acquisition and other unforeseen complexities within a study.

Task Name	Projected Time of Completion*
Engineering Analysis	Summer 2015
Flood Study Review Meeting	Summer 2015
Preliminary Map Production	Summer/Fall 2015
Final CCO & Public Meeting	Summer/Fall 2015
Resiliency Meeting	Fall 2015
Effective Map Production	Summer/Fall 2016
**All dates are projected and subject to revision.*	

There will be at least three meetings between FEMA, the State, and the Community for this study. They are the Flood Risk Review (FRR), Final CCO, and Resiliency meetings. The FRR meeting will be held after the completion of the Coastal Analysis task. The input data, methodology and draft result would be presented at the FRR meeting. The Final CCO meeting is the meeting at which the preliminary results of a Flood Insurance Study are reviewed and discussed with community officials. This meeting would be held after the data was released as Preliminary, either before or near the beginning of the statutory 90-day appeal period. The Resiliency meeting will be held after the release of the preliminary maps. The purpose of the Resiliency meeting is to continue to build local capacity for implementing priority mitigation activities within the watershed. The timing will depend upon which non-regulatory Risk MAP products will be developed and the specific requirements of the Community. The Community may also hold a public open house meeting after the preliminary map release which would be supported by FEMA.

Project Scope

Scope includes all 34 miles of coastline in Ketchikan. Updated detailed modeling will be completed for 0.99 miles on Hoadley Creek, 1.2 miles of Ketchikan Creek, and 1 mile on Schoenbar Creek. Redelineation using new LiDAR will be completed for 0.08 miles of Carlanna Creek.

Additional Project Deliverables

Project also includes standard Risk Products (Risk Report/Map/Database) as well as Flood Risk Datasets (Changes since Last FIRM, Flood Depth and Analyses Grids and Flood Risk Assessment). The Risk MAP datasets are scheduled to be completed fall 2015.

Project Location