



FEMA



2014 Valdez Study Partnership Agreement

This Risk MAP Partnership Agreement is used to document the regulatory and non-regulatory tools that City 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 Valdez and the commitments of the City 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, City, and Economic Development, Division of City 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 Valdez (hereafter referred to as "the City") will identify, assess, communicate, plan for, and mitigate risk.

The information provided by this project can be used by the City 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 City, 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 City 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 City by capturing city needs for how the project outputs will be incorporated into ongoing activities in order to reduce risk and build a more resilient city.

The RiskMAP Project will consist of the following deliverables:

- Updated flood insurance study and digital flood insurance rate maps for the entire city to include 17.7 miles of coastline, 22.3 miles of detailed riverine study and 18.7 miles of approximate riverine modeling.
- Risk Assessment products to include changes since last FIRM, 1% annual chance flood depth grid for coastal and approximate riverine areas, a BFE+ grid for coastal areas, and 10%, 4%, 2%, 1%, and 0.2% annual chance depth grids for detailed riverine areas
- Multi-hazard risk report to include detailed Hazus analysis for flood and earthquake using local parcel/assessors information
- Mitigation planning technical assistance
- Trainings



Roles and Responsibilities

FEMA, STARR, and the State will provide officials from the City 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 City 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. City 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 City 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 city through the floodplain administrator and Chief Executive Officer.
- Enhance the City's ability to communicate about hazards and associated risk to people who live and work within their City 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 City 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 City 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 City; 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 city. 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 city 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 City 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 City hazard mitigation plan update which will ultimately encourage risk reduction.



The City 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 City 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 Valdez 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. A riverine analysis will also be performed to include hydrology and hydraulic modeling for 3.8 miles of detailed riverine study on Mineral Creek, 11.7 miles of detailed riverine study on Lowe River, 4.6 miles of detailed riverine study on Valdez Glacier Stream, 2.2 miles of detailed riverine study on Robe River, and 18.7 miles of approximate riverine modeling on various streams. Floodplain delineations and the Flood Insurance Study will be updated for the entire City. A draft map for the coastal analysis will be completed in spring 2014. The draft map for the riverine analysis will be completed in Fall 2014.
- Prepare and provide the regulatory **Flood Insurance Study (FIS) Report** document to the City. A FIS is a book that contains information regarding flooding in a city 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 city 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 City which identifies the City'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 winter 2014.
- 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 City by providing information and resources upon request.

The City 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 city meetings, and will make FEMA aware of any potential risks to project progress.

Risk Assessment Activities

Risk assessments allow City to make informed mitigation, land use, and emergency management decisions by providing products and technologies that communicate and visualize risks. To provide the City with information regarding risk



associated with multiple hazards within the city, FEMA will work closely with the City to produce the products and tools listed below. (For more specific details of the scope of the mapping activities, please see attached Valdez 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. The detailed riverine work will include 10%, 4%, 2%, 1%, and 0.2% annual chance depth grids. Depth grids depict the depth of flooding at locations throughout a city 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 city.
- 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 city. 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 City 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 City with technical assistance for HAZUS projects.
- Provide the City 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.

Valdez is strongly encouraged to:

- Coordinate with FEMA to update their local data in Hazus so a level 2 analysis can be completed.
- Incorporate results from the risk assessment into their next mitigation plan update to update their hazard sections as well as identify mitigation actions.

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 city resiliency to hazards and improve future disaster response.

FEMA and the State will:

- Provide the City with any findings/recommendations resulting from the event, identify areas of mitigation interest and ultimately support the city in their recovery efforts.
- Support the City in prompt disaster response by coordinating internally and providing resources.
- Provide the City 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 city with any findings\recommendations resulting from the event.

The City 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 City 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 City to meet requirements established in 44 CFR Part 201.

FEMA will:

- Coordinate with the State and City 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 City 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 City by providing information, clarification, and resources to support mitigation planning efforts or obtaining funding, upon request.

The City 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 Valdez Hazard Mitigation Plan which expired on June 27, 2013.
- Actively participate in the mitigation planning process, by, at a minimum, considering and prioritizing mitigation projects that may support city 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 City by providing training and outreach materials as needed and requested.

Training sessions and outreach materials may be targeted to the individual City or to a general audience, as needed to meet



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the needs of this Partnership Agreement. FEMA will deliver outreach materials and schedule training sessions on topics identified by the City.

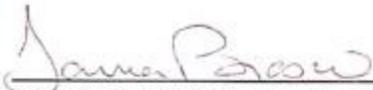
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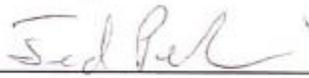
Risk MAP Partnership Signature Page

Roles and Responsibilities

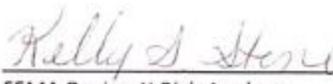
This Partnership Agreement represents a good-faith effort by all parties to share data, communicate findings, and plan mitigation activities to reduce the exposure of the citizens within the City to hazard risk. **It is not legally binding.** The parties listed in the signature block below will collaborate 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 City.

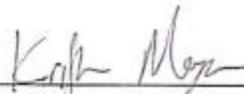

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Tamra Biasco
Date: 2/18/14


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


FEMA Region X Engineer
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Kristen Meyers
Date: 2/18/14


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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: 2/25/14



Cities and/or City of:

Representative of:
Name & Title:
Date:



Attachment

Valdez Project Summary

The Valdez flood mapping project began in 2012 and is expected to extend through summer 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	Spring 2014 (Coastal), Fall 2014 (Riverine)
Flood Study Review Meeting	Spring 2014 (Coastal), Fall 2014 (Riverine)
Preliminary Map Production	Spring 2015
Final CCO & Public Meeting	Spring 2015
Resiliency Meeting	Summer 2015
Effective Map Production	Spring 2016
<i>*All dates are projected and subject to revision.</i>	

There will be at least three meetings between FEMA, the State, and the City 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 city 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 City. The City may also hold a public open house meeting after the preliminary map release which would be supported by FEMA.



Project Scope

Scope includes all 17.7 miles of coastline in Valdez. For riverine work 11.7 miles of detailed study will be completed for the Lowe River, 4.6 miles of detailed study for the Valdez Glacier Stream, and 2.2 miles of detailed study for the Robe River. 18.2 miles of approximate riverine analysis will also be completed for various streams. 6.2 miles of Lowe River will also be re-digitized from the effective panels.

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 summer 2015.

Project Location

