

FEMA Region X – Risk MAP Discovery Interview
City and Borough of Juneau, AK
September 5, 2013 10:00 AM PT

Attendees:

City and Borough of Juneau (CBJ)

Eric Feldt – Floodplain Administrator and Planner

Quinn Tracy – City and Borough Cartographer

Greg Chaney – City and Borough Lands and Resources Manager

Hal Hart – City and Borough Community Development Department Director

Alaska Municipal League

Sarah Geary – Bookkeeper

State of Alaska

Sally Russell Cox – Alaska State Risk MAP Coordinator (*meeting facilitator*)

FEMA Region X

Kristen Meyers – FEMA - Mitigation Planner

Kelly Stone – FEMA - Risk Analyst

Ted Perkins – FEMA - Regional Engineer

STARR (FEMA Contractor)

Josha Crowley – STARR – Regional Service Center (RSC) Lead (*meeting host*)

Emily Whitehead – STARR – Project Manager

Troy Sova – STARR – GIS Analyst

Ms. Kelly Stone provides a brief statement on the Discovery process and when the in-person meeting will be taking place as well as who will be coming from the Region (Ted and Kelly).

Ms. Sally Russell Cox provides a presentation introducing Risk MAP and the Discovery process and notes that the majority of this call will be spent talking about the concerns of CBJ related to hazards and mitigation. The presentation is attached to these minutes as Appendix A.

The following information was collected during the Interview. Unless otherwise noted, all comments are from the City and Borough of Juneau representatives.

I. Local Contacts

- a. The local contact spreadsheet was displayed on screen via the webex software, and asked if there were any updates needed:
 - i. If other staff members need to be added, Eric Feldt will contact Sally to add additional personnel to the list.
 - ii. Eric invited the Police and Fire Chiefs for the call today but unfortunately they were unable to attend. If their participation would be beneficial during the in-person Discovery meeting, Eric will invite them again and pass along their contact information to Sally.
 - iii. Sally would be happy to add anyone additional to the email distribution list.

II. Topographic Data

- a. Is new LiDAR available?
 - i. New LiDAR is coming from the Watershed Sciences Inc.
 - ii. LiDAR created from a 2013 project flown in April 2013
 - iii. Borough is waiting for the remainder of the project to come in the next few months and have the full product at the end of the 2013 calendar year
 - iv. Ms. Whitehead and Mr. Feldt explained that there is a limited amount of USGS LiDAR data available that is a few years old and has a coarser contour interval than the active local LiDAR project
 - v. Borough does have some older LiDAR from the 1980's-90's but over time development has caused those elevations to be less accurate and less reliable
 - vi. Borough does have some new survey spot elevations in southern portion of the Mendenhall Valley that could be useful depending on the application

III. Local and Regional GIS Data

- a. Borough and City have GIS personnel
- b. Borough and City have data
 - i. Mr. Quinn Tracy noted what layers the City does/does not have available to share: no building footprints or utility layers, but CBJ does have transportation, parcels and could probably come up with a land use layer.
 - ii. Ms. Emily Whitehead will send Quinn at the City and Borough of Juneau an email list of data that would be of interest for the Discovery process

IV. Mitigation Planning

- a. Ms. Russell Cox asked what are the highly valued aspects of the City and Borough of Juneau
 - i. Life and Property
 - ii. Expansion of new developments known and unknown for economic base
 - iii. Recreation
 - iv. Infrastructure
- b. Discussion regarding the local Hazard Mitigation Plan, effective through 8/12/2017
 - i. Community Development Department was not a main role player in HMP
 - ii. Eric feels that Tom Mattice was the main key player in developing the Plan
 - iii. Discovery and Risk MAP process will be helpful in updating the Plan
- c. Is assistance or support to implement or improve the existing plan desired?
 - i. Yes, they would like any assistance/support they can get as they move through the Risk MAP process

- d. What are the Top Hazard Mitigation Priorities locally
 - i. The City and Borough have not had a chance to look at any documentation regarding any projects but will create a list of priorities and send to the State
 - e. Has CBJ developed and/or adopted evacuation, response, recovery plans?
 - i. Eric is sure they have one; he is not familiar with it because it is handled within the Emergency Management department with Tom Mattice. Eric will have Mr. Mattice provided any related documents to him and Eric will forward those to Sally.
 - f. Is there are any Repetitive Loss structures locally
 - i. None filed recently
 - g. Does CBJ have an Emergency Management Office or is that function carries out by the fire department, etc.?
 - i. Eric believes this function is carried out by local police and fire departments. He does not believe they have a single office dedicated for this scenario but will check with Tom Mattice.
 - h. Are there any Flood-Related mitigation projects to add to updated Mitigation Plan?
 - i. Purchased a property – resident built across a stream
 - i. Does the Borough or City execute regulation that directs development away from Flood or Wildfire risk?
 - i. Ordinances to direct development outside of floodways
 - ii. Ordinances to direct development away from high risk avalanche zones
 - iii. No regulations for direct development in wildfire zones
- V. Avalanche Hazard
- a. Ms. Russell Cox asked if there are areas with this specific hazard
 - i. Local response that downtown Juneau and specific subdivisions are most susceptible that last experienced an avalanche in the 60's
 - ii. Local response that they need funding to mitigate this type of hazard
 - iii. Thane Rd, Gastineau Ave and other downtown roads are in the path of this hazard
- VI. Landslides
- a. Locals have mapped these and historic slides have occurred in the downtown Juneau area
 - b. Some have occurred in the last 5 years in the similar avalanche paths
 - c. Mentioned in the Land Use Code for building to withstand force from this hazard
 - d. Recently studied in the last several years along with avalanche put into a document with recommended mitigating measures
 - e. Thane Rd, Gastineau Ave and other downtown roads are in the path of this hazard
 - i. Any mitigation actions for this hazard?
 - 1) Power company created an avalanche/landslide diverter for the main transmission line that brings power to CBJ
- VII. Fire
- a. This is a third critical hazard that has occurred and affects the downtown area
 - b. Structures mostly comprised of wood frames
 - c. Fire occurred within the last 8 months but was contained

- d. City of Douglas, over 90 years ago, was devastated by a fire
 - a. Any need to identify critical structures at risk?
 - i. Yes, a Centennial Hall (community center) could be potentially affected by this hazard
 - ii. Locals may have a study that identifies high risk buildings in terms of fire hazard that Eric will look for and send to the State
- VIII. Earthquake Risk
- a. Fault lines cross throughout the Borough (active fault zone)
 - b. Minor quakes have occurred but no damage to structures
 - c. Been long time since last major earthquake in the last 40 years
 - d. Borough does have an aggressive building code enforcement program where buildings are built to withstand this hazard
- IX. Severe Storms
- a. High Winds
 - i. Roofs being torn off
 - ii. Siding torn off
 - iii. Trees falling down
 - iv. Vehicle/building windows damage
 - v. Debris affecting traffic
 - vi. Power outages are common (hydro-electric plant provides power to City)
 - b. Heavy Snow
 - i. Traffic and emergency access is affected
 - ii. Maintenance of roads and utilities is key
 - iii. Roof damage (homes/mobile homes)
 - iv. Power outages are common
 - iii. Sheltering residents during severe storms?
 - a. Locals have not had to shelter anyone for this type of hazard but they have for fire, landslides, and avalanches in the past at the Centennial Hall Recovery Center (also churches, community centers, schools, libraries)
 - b. Information spread by a public service announcement via radio (AM & FM) especially, paper, and online news (no local news)
- X. Glacial Lake Outburst
- a. This has been occurring often in the last 5 years where water melts in a glacier and releases into the water body during warm weather
 - b. Mendenhall Glacier feeds into Mendenhall River where 3 recorded events have occurred
 - c. Flash Floods have occurred on small ponds/lakes in the Mendenhall River Valley
 - d. Aerial photographs were taken of the event to see how far the flooding reached
 - e. Flooding has matched the boundaries as depicted on the latest FEMA flood maps
 - f. Neighborhoods have been affected by this event, roads flooded, structures damaged
 - g. Lemon and Eagle Creeks are glacially fed streams but have not experienced this hazard
 - h. Taku River experiences this hazard annually but is not highly urbanized
 - i. New sensors have been placed when basins are beginning to fill when this potential hazard could take place

XI. Flood Hazard

- a. Ms. Russell Cox asked if there are areas where the Effective Flood Insurance Rate Map does not accurately reflect 1% Annual Chance Flood
 - i. Local response that three reaches need to be updating:
 - 1. Gold Creek – downtown area needs to be refined. Currently it is an Unnumbered A Zone (channelized stream); flood boundary line does not reflect current channel
 - 2. Auke Lake – Unnumbered A Zone; at least 10 homes along shoreline; flood boundary does not seem to represent topo lines
 - 3. Auke Bay – BFE seem very high; flood zone boundary does not seem to follow topo. Eric hopes with 2013 LiDAR we can match the floodplain boundaries to the new elevation data. Also concern that the modeling of the V zones might be over-aggressive and the breakwater (visible on imagery) was not considered in the modeling.
 - ii. Mr. Ted Perkins asks that the locals provide a list of priorities that are affecting the most people that need to be redelineated based on the new LiDAR. Agreement on the phone that the three areas mentioned above would be top priority

XII. Wildfire

- a. Locals say that this is not a hazard with the very wet conditions for the area
- b. Smoke for surrounding fires can be experienced in CBJ given certain weather conditions and wind patterns

XIII. Tsunami Risk

- a. Relatively low risk
- b. Locals do have Tsunami sensors in place to warn residents
- c. Large landslide could cause a tsunami but would take a large earthquake to cause this hazard to take place

XIV. Volcanoes

- a. Surrounding area of Sitka Borough has an inactive volcano
- b. Ash from active eruption could affect CBJ and cause disruptions in air quality, air travel, visibility and health concerns

XV. Air Transportation (Local Specific)

- a. Airport is working with FAA to extend the runway and improving the approach with lighting
- b. Removal of trees for visibility closer to runway
- c. Bird strikes, low visibility due to climate changes
- d. Multiple studies done to mitigate issues for safer air travel
- e. Landfill is located close to airport which attracts birds and consequently the area has a high bird population
- f. Mendenhall Wetland State Game Refuge is mostly surrounding the airport and hunting has been in place to help minimize bird strikes and removal of nests have been approved by the US Fish and Wildlife

- XVI. Are there any levees or flood control structures along the floodplains in CBJ?
- a. Dams
 - i. Salmon Creek Reservoir Dam
 - 1. Informal drawn map that shows time frequencies of how quickly the water will inundate that given area. Hospital is located close by but water did not affect this area
 - 2. Mr. Ted Perkins will look into the dam and who owns it
 - b. Levees
 - ii. Lower Mendenhall River
 - 1. Levee in area but locals are not sure if it provides protection and not sure if it meets the 65.10 Certification of compliance
- XVII. Do any Environmentally Sensitive Areas exist locally?
- a. Wildlife Refuge
 - b. Area has lots of wetlands
 - c. Salmon streams (Taku River) +/- 200
 - d. High density of bald eagles/nests
 - e. Sea lion haul out areas
 - f. Fuel tank farms located next to wetland game refuge (fire could cause major spill and major damage) – Douglas Island
 - g. Lemon Creek area where heavy industries that take place (pollution could travel downstream). This waterway is an impaired stream and spawning stream
 - h. Landfill on downstream end of Lemon Creek that could contribute to hazardous materials released into the State Game Refuge
- XVIII. Has the City and Borough of Juneau experienced Presidential Declared Disasters?
- a. Not that CBJ is aware of
 - b. Tom Mattice would know more about any special outreach programs to provide residents with information during or after a disaster
- XIX. Communications and Outreach
- a. Eric Feldt mentioned that there were four public meetings about the new flood maps and what it means to be in a flood zone (radio interviews)
 - b. Anytime ordinances are passed, public involvement is required by law
 - c. Targeted mailings to residents/businesses located in high risk areas

- XX. Other Resources for Information
 - a. USGS
 - b. NOAA
 - c. NWS
 - d. US Fish and Wildlife
 - e. US Fish and Game
 - f. FAA
 - g. Local engineering firms
 - h. AK DOT
 - i. Utility Department
- XXI. Key Players/Decision Makers
 - a. Local Assembly
 - b. Manager's office (Eric's Department reports to)
 - c. Business Chamber of Commerce (informal local business partner)
 - i. Showing risk on maps is the best way to communicate to decisions makers
 - ii. Mr. Feldt mentioned that the velocity zones with the new maps that the Borough wants to look at the matter because of having some resistance based on flood regulations. The Alaska Municipal League was a key facilitator between local policymakers and local reps and the State with National policymakers
- XXII. What is the current awareness level about natural hazards among the public?
 - a. Locals are not aware of any
 - b. CBJ may be interested in help with outreach regarding hazards to inform the general public
- XXIII. Compliance and Training
 - a. Floodplain Management
 - i. Mr. Feldt said he could always use training to better inform the community and how maps relate to a home/business owner
 - ii. Mr. Feldt is also looking into have the CBJ becoming part of the CRS Program (qualifying factors)
 - b. Training/Support
 - i. Mr. Feldt will be attending a training conference (NORFMA) in the fall
 - ii. Mr. Hart said it would be nice to have another staff member with floodplain management training
 - c. RSC Newsletter
 - i. Lists training
 - d. STARR website
- XXIV. Scheduling Discovery Meeting
 - i. Local Meeting on 9/26/13

XXV. Questions

- a. What is the commitment from CBJ and FEMA?
 - i. CBJ is apprehensive about entering this program
 - ii. Mr. Hart stated that he likes the idea of community resiliency (issue is the economic lifeline due to disruptions)
- b. How can this program benefit the community?
 - i. Studies in place (how can funding help the community become more resilience)
 - ii. Help reduce flood insurance rates by getting into the CRS Program
- c. Mr. Crowley mentioned that the priorities are not necessarily needed before the Discovery meeting. FEMA is not looking for a commitment from CBJ as far as a financial.

Appendix A - Discovery Information Exchange Presentation



FEMA

Risk MAP Discovery

City and Borough of Juneau

Information Exchange Session
September 5, 2013

RiskMAP

Increasing Resilience Together



Information Exchange Agenda

- **Overview of Risk MAP and Discovery**
- **Introduction to Enhanced Risk MAP Products**
- **Interactive Questionnaire**
- **Close**

Overview: Risk MAP



- Five year effort to modernize maps
- Result: digital flood data and digital maps for 92% of population
- Improved flood data quality
- Limited to flood hazards
- Limited up-front coordination
- Scoping not mandatory

RiskMAP

Increasing Resilience Together

- Collaborative approach
- Goals: quality data, public awareness, action that reduces risk
- Watershed-oriented
- Multi-Hazard
- Focus on up-front coordination
- Discovery is mandatory

The Vision for Risk MAP

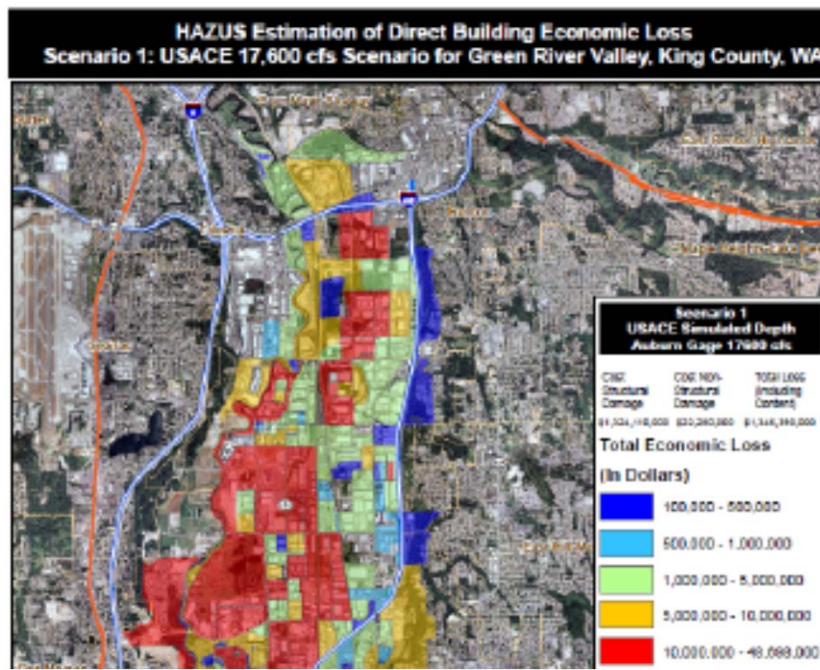
Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property



Risk MAP Products

Multi-Frequency Depth & Water-Surface Elevation (WSE) Grids

10%, 2%, 1%, 0.5%, 0.2%
annual chance profiles



Inundation

- 3 feet or less
- 3 to 6 feet
- 6 feet +

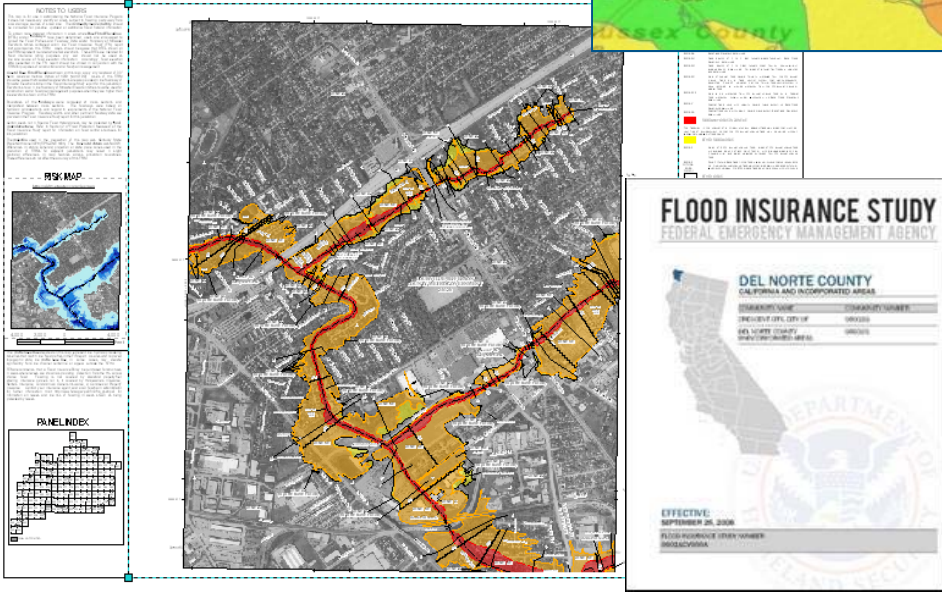
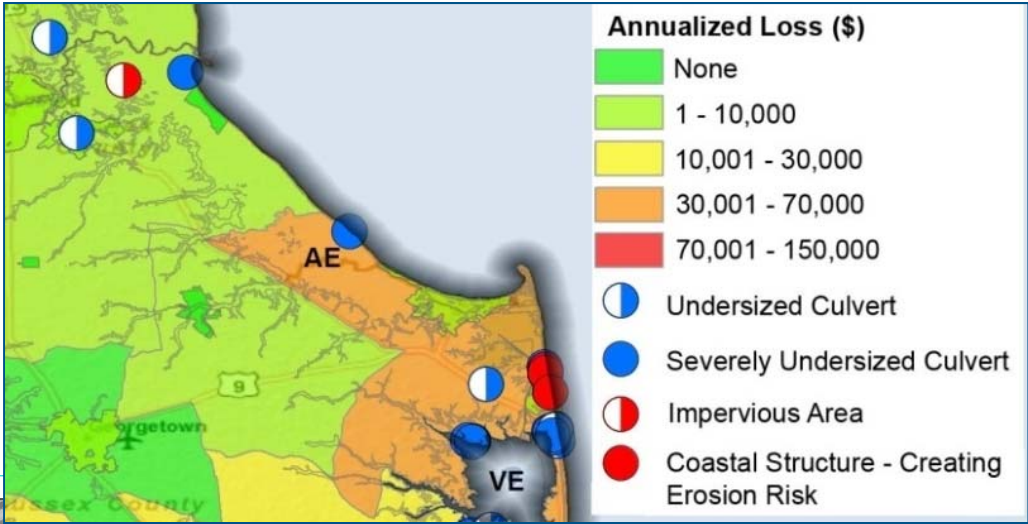
HAZUS Risk Assessment & National Flood Risk Layer

Enables communities to understand risk by
reference to existing structure loss

Risk MAP Products

Contributing Hazard Factors

Highlights areas of concern identified throughout project



FIS Reports and DFIRM Maps

DFIRM and FIS will continue to fulfill regulatory requirements and support the NFIP

Discovery

Discovery is the process of data collection and analysis with the goal of initiating a hazard risk or mitigation project and risk discussions within the watershed

When:

- After an area/watershed has been prioritized
- Before a Risk MAP project is scoped or funded

Required for new and updated...

- Flood studies
- Flood risk assessments
- Mitigation planning technical assistance projects

Why:

- Increases visibility of flood risk information, education, involvement
- Helps inform whether a Risk MAP project will occur in the watershed



City and Borough of Juneau Discovery

- **Federal and State Data Collection**
- **Local Issues: Identify Risk MAP Needs**
 - Need support with mitigation planning?
 - Need mitigation projects?
 - Need new flood study data?
 - Need training on floodplain management?
 - Need support developing a hazard risk outreach program?
 - What else can FEMA do to help your community become resilient?
- **Discovery Meetings: September 25-26, 2013**
- **Risk MAP Project(s) Identified**
- **Possible FEMA Funding Allocated for Risk MAP Project**

Discovery Questionnaire Overview

- **Local Contacts**
- **Data**
 - LiDAR
 - Local or Regional GIS Data
- **Mitigation Planning**
 - Desired Mitigation Projects

Local Hazards	
Earthquakes	Tsunami
Wildfires	Landslides
Severe Storms	Flooding
Glacial Lake Outburst	Avalanche

Mitigation Planning		
How would you describe your level of involvement with the development of the mitigation plan? (Considerable, Moderate, Minimal)	Do you need assistance with mitigation planning in your community? (Yes, No, Possibly)	Mitigation Planning Comments, Explanations, Questions

- **Levees**
- **Environmentally Sensitive Areas**
- **Communications and Outreach**
- **Compliance and Training**

Contact Information

	A	B	C	D	E	F	G
2	Community Contact Information						
3	Community	County (if Different)	State	Information Exchange Call Date (mm/dd/yy)	Name and Title	Name and Title 2	Name and Title 3

- Is our contact information complete and accurate?
- Are there others we should contact before the Discovery meeting?

Topographic Data - LiDAR

	AL	AM	
s	Data - LiDAR		
nts, ns, luding eral SAs)	Are you aware of existing or planned additional topographic data? (Yes, No, Possibly)	LiDAR Comments, Explanations, Questions (Including general coverage area, date , and accuracy of additional data collection)	Trans L

- New LiDAR coming from WSI
- USGS data available
- Any additional data?

Local and Regional GIS Data

	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX
	Local or Regional GIS Data										
ons e,	Transportation Layers	Political Boundaries	Land Use Data	Parcel Data	Building Footprints	Inundation Areas from Historic Flooding	Essential Facility Data	Wetlands or Environmentally Sensitive Data	Ortho-photography	Other	GIS Contact Information or GIS Data Comments, Explanations, Questions

- Local and regional data can be used in regulatory or non-regulatory products
- Helpful in identifying levels of risk within community for educational purposes

Mitigation Planning

- **What do you value in your community?**
- **How much were you involved with developing your current plan?**
- **Do you desire support with planning in the future?**
- **What kind of technical assistance or support would you benefit from?**

Desired Mitigation Projects

- Does your current plan include all desired mitigation projects?
- Repetitive loss structures in your community?
- Do you have evacuation, response, or recovery plans adopted and in practice?
- Does your emergency management office have a plan for resilience?
- Are there other flood-related mitigation projects that you will be adding to your next mitigation plan update? Where? Why?
- Past grant projects? Successes?

Local Hazards

Local Hazards	
Earthquakes	Tsunami
Wildfires	Landslides
Severe Storms	Flooding
Glacial Lake Outburst	Avalanche

Things to consider

- Hazard areas mapped?
- Response plans in place?
- Is mitigation possible?
- Are your citizens aware of the hazard?
- How to communicate hazards and motivate risk reduction



Levees

	Y	Z	AA	AB	AC	
	Levees					
Are there levees in your community that provide protection from the base (100-year) flood? (Yes, No, Possibly)		Flooding source and general location of levee?	Do you know if these levees meet FEMA 65.10 requirements? (Yes, No, Possibly)	If yes, do you have the documentation to support recertification? (Yes, No, Possibly)	Levee Comments, Explanations, or Questions (including levee owner or POC for certification docs)	How your with th (Con

- Know of any in your community? Where?
- Provide base (100-yr) flood protection
- Certification of compliance with 65.10

Environmentally Sensitive Areas

	AJ	AK	
	Environmentally Sensitive Areas		
ing ing ion and n)	Are there ESAs in your community that should be considered in flood-related projects? (Yes, No, Possibly)	ESA Comments, Explanations, Questions (including type and general location of ESAs)	Are y e a topog (P

- Any ESAs in your community?
- Locations and details welcome

Communications and Outreach

	AY	AZ	BA	BB	BC	BD	BE	BF	
	Communications and Outreach								
	In general, what is the current awareness level about flood risk among your citizens? (High, Low, Mixed)	If levees present, what is the current awareness level of flood risk among residents living behind levees? (High, Low, Mixed)	Thoughts on anticipated residents' reactions to updated flood study results? (Positive, Negative, Indifferent, Mixed)	Special flood-related outreach programs, such as in response to federally-declared disasters? (Yes, No)	Has the community found any particular type of outreach that works better to communicate risk to the different demographic groups? (Yes, No, Not Needed)	Regarding notification regarding future projects, are there regular meetings that officials hold where project status might be appropriate for the agenda? (Yes, No, Possibly)	With supporting templates and information, would your community be willing to take a proactive approach in educating citizens about their risk and steps they can take to protect themselves? (Yes, No, Possibly)	Communication and Outreach Comments, Explanations, Questions	

- Residents look to local officials for flood risk information
- Risk MAP to provide tools, templates, resources to support local officials in communication
- Goal to increase local knowledge of flood risk (not just insurance requirement)

Compliance and Training

	BG	BH	BI	BJ	
	Compliance and Training				A
and ents,	Does your community have a identified Floodplain Administrator? (Yes, No, Unsure, Floodplains Managed by Other Entity)	Do you have a floodplain permitting process? (Yes, No, Unsure)	Is training or other support in floodplain management needed? (Yes, No, Possibly)	Compliance Comments, Explanations, Questions	Risk N

- Need support with your floodplain management program?
- Could use a little training?

Questions?

FEMA

- **Dwight (Ted) Perkins, Regional Engineer, dwight.perkins@fema.dhs.gov**
- **Kristen Meyers, Mitigation Planner, kristen.meyers@fema.dhs.gov**
- **Kelly Stone, Risk Analyst, kelly.stone@fema.dhs.gov**

Alaska

- **Sally Russell Cox , State RiskMAP Coordinator, sally.cox@alaska.gov**
- **Taunnie Boothby , State NFIP Coordinator, taunnie.boothby@alaska.gov**

STARR

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