

Cordova Resilience Workshop



February 22, 2016



FEMA

Agenda – Risk in Cordova

- RiskMAP Process Overview
- Resilience and Risk Assessment
- Risk Assessment Results
- Project Timeline
- Implementation Opportunities
- Mitigation Action
- Funding Opportunities



Today's Goal

1. Review previously identified mitigation and risk reduction strategies
2. Identify applicable implementation mechanisms
3. Discuss a range of actions to reduce Cordova's risk

Risk MAP Program



Project Timeline

Discovery:
March 4,
2011

Flood Study
Review
Meeting: June
25, 2014

Preliminary
Map
Production:
August 25,
2014 &
Revised:
October 31,
2014

Final CCO and
Public
Meeting:
September 23,
2014

Effective Map
Production:
December 16,
2015

Resilience
Meeting:
February 22,
2016

Resilience

One (of many) definitions of resilience*:

“Is the capacity of individuals, communities, institutions, businesses, and systems within a [community] to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.”



*The Rockefeller Foundation

Resilience and Risk Assessment



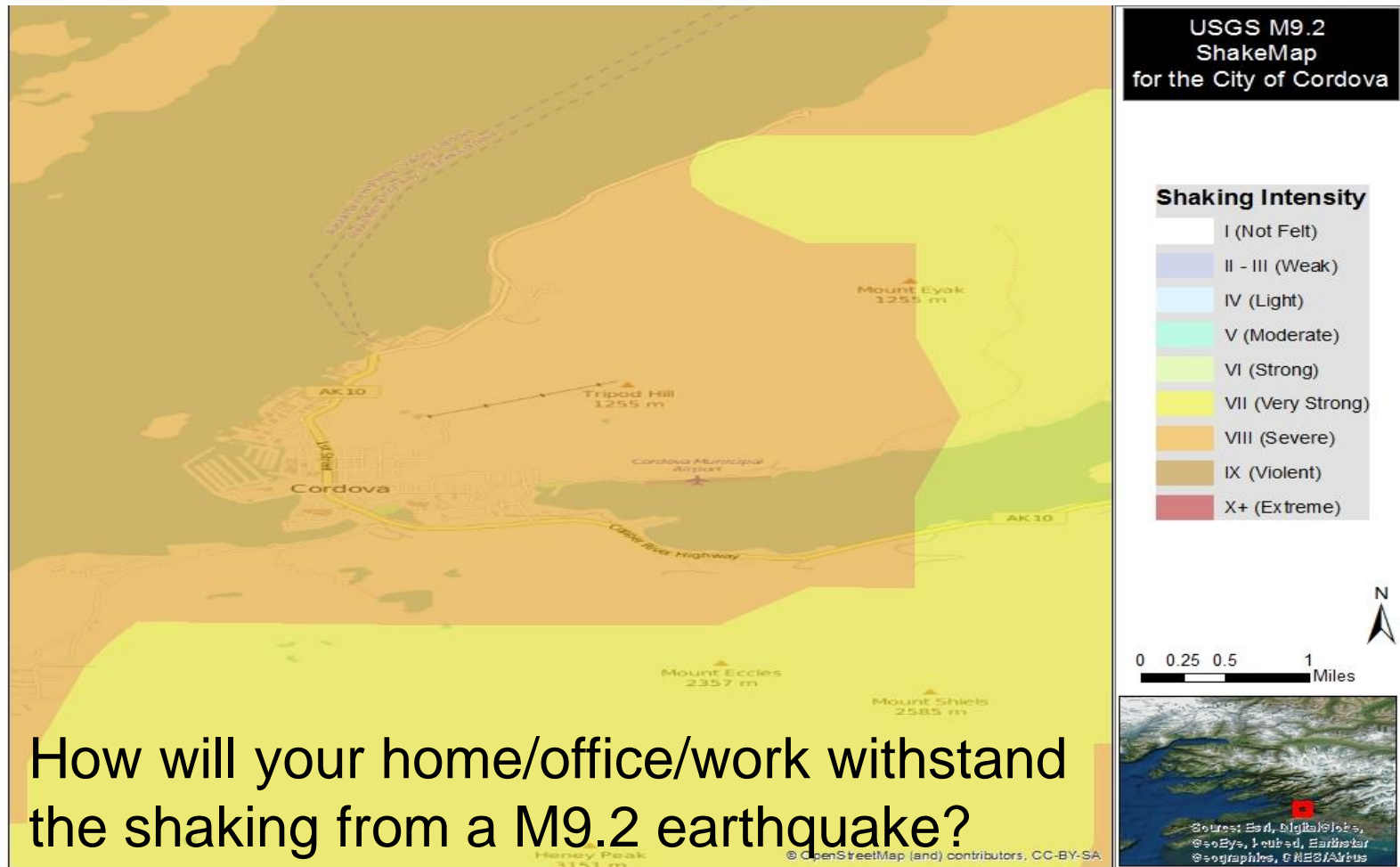
- The Risk Assessment identifies opportunities for mitigation projects and outreach.
- Today we discuss the specific locations at risk to a variety of hazards.
- Resilient communities take action to mitigate hazards and prepare to build back better during recovery.

Risk Assessment: Hazard Data

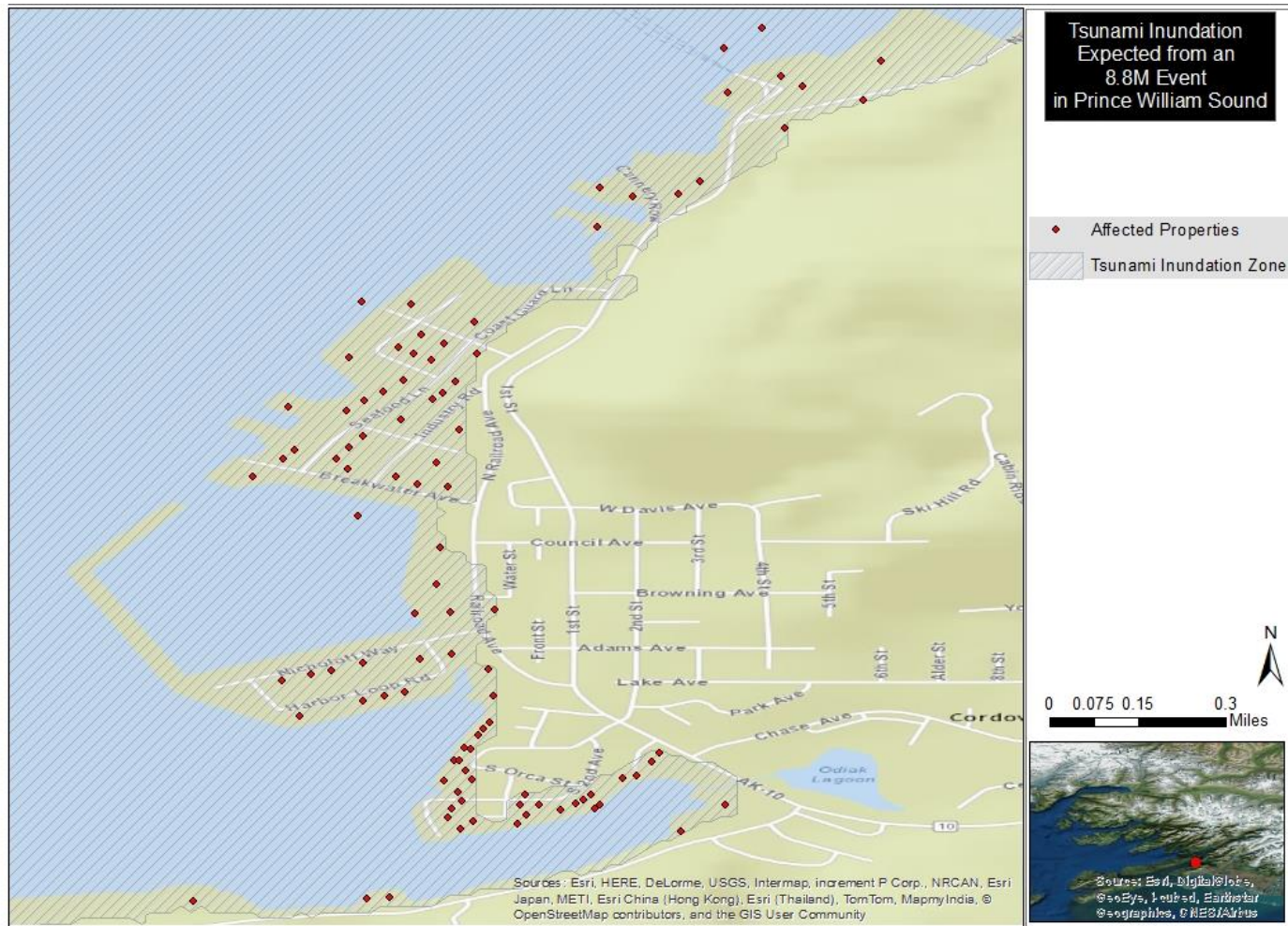
Overview of Risk Report Data and Risk Assessment Results

- Hazus incorporates
 - Flood depth grid from the flood study
 - Earthquake ShakeMap from USGS
- Vulnerability assessment incorporates
 - Tsunami data from AKDNR, DGGS

Earthquake Results



Tsunami Results



Remember: Tsunami damages are covered by flood insurance!

Take Action to Reduce Long-Term Risk

Identify Comprehensive Range of Mitigation Actions

Review risk assessment

Assess capabilities



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Evaluate and Prioritize Actions



Take Action to Reduce Long-Term Risk

Identify Comprehensive Range of Mitigation Actions

Review risk assessment

Assess capabilities

Evaluate and Prioritize Actions

Develop Action Plan for Implementation

Integrate with existing
planning mechanisms

Describe implementation
of actions

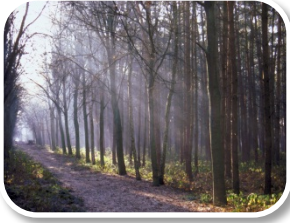
Types of Actions



Local Plans and Regulations



Structure and Infrastructure Projects



Natural Systems Protection



Education and Awareness Programs

Natural Hazard Mitigation Plan Status

Cordova has a plan to reduce long-term risk

- City of Cordova, effective through August 22, 2018

City of Cordova, Alaska
Local Hazards Mitigation Plan



Cover Photo: October 10, 2006 Flood- Six Mile Subdivision Area

Hazard Mitigation Plan Strategies

Flood Hazard

“Apply for grants/funds to implement riverbank protection methods”

Risk MAP Benefits:

- Utilize Risk Report and the Risk Database to inform the Benefit Cost Analysis when applying for FEMA grants.

Hazard Mitigation Plan Strategies

Flood/Erosion Hazard

“Require that all new structures be constructed according to NFIP requirement and are set back from the river shoreline to lessen future erosion concerns and costs”

Risk MAP Benefits:

- Utilize Risk Report and the Risk Database to inform the establishment of building setbacks and foundation elevations.

Hazard Mitigation Plan Strategies

Tsunami Hazard

“Obtain tsunami inundation maps for Cordova”

Risk MAP Benefits:

- Utilize Risk Report and the Risk Database to identify which structures are located in the tsunami inundation zone. Reassess land use and zoning practices.

Hazard Mitigation Plan Strategies

Multi-Hazard

“Increase public knowledge about mitigation opportunities, floodplain functions, emergency service procedures, and potential hazards”

Risk MAP Benefits:

- Utilize Risk Report and the Risk Database to develop outreach materials and hazard risk in Cordova.

Mitigation Action – Flood

- Risk Assessment Results:
 - 26% of buildings are located in the SFHA, but only 7 are covered by NFIP policies.
- Actions:
 - Develop an outreach strategy to help home and business owners understand the value of flood insurance

Mitigation Action – Tsunami

- Risk Assessment Results:
 - 13% of Cordova’s infrastructure is in the tsunami inundation zone.
- Actions:
 - Provide outreach to home and business owners regarding tsunami risk
 - Consider limiting additional development in tsunami hazard zones
 - Develop an outreach strategy to help homeowners and business owners understand the value of flood insurance

Mitigation Action – Earthquake

- Risk Assessment Results:
 - Structures built prior to 1941 were not designed with consideration of seismic hazards and are therefore likely to experience more damage in an earthquake.
- Actions:
 - Identify structures built prior to 1941 to identify and prioritize future earthquake retrofits
 - Prioritize non-reinforced masonry structures

FEMA Hazard Mitigation Assistance Grants

Support mitigation projects designed to reduce the effects of hazards and/or vulnerability to future disaster damage.

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Grants are managed, prioritized, and work verified by the state
- Funding availability may vary from year to year



Hazard Mitigation Grant Program (HMGP)

Grant Program	Purpose	Competition	Available	Non-Fed. Share	Application Timeline
Hazard Mitigation Grant Program (HMGP) (Sect 404)	<p>Post-Disaster</p> <p>All Hazards</p> <p>Plans and Projects</p>	State-wide	After a Presidential Declaration of Major Disaster	<p>12.5 % - 25%*</p> <p>* Upon approval of Governor & Legislature, the state may pay up to ½ of the non-fed cost-share, up to 12.5%.</p>	Generally due to State 12 months after declaration

- Mitigation planning initiatives
- Cost-effective mitigation projects designed to reduce or eliminate future disaster damage.

Pre-Disaster Mitigation (PDM)

Grant Program	Purpose	Competition	Available	Non-Fed. Share	Application Timeline
Pre-Disaster Mitigation Grant Program (PDM)	Pre-Disaster All Hazards Plans and Projects	Nationally Competitive	Annually	10% - 25%*	Due to State ~3 months after federal announcement, which typically occurs in the spring. See WA EMD announcement at ... http://www.emd.wa.gov/grants/grants_hazard_mitigation.shtml

The PDM program provides funds for hazard mitigation measures designed to reduce injuries, loss of life, and damage and destruction of property. PDM grants are available for mitigation planning initiatives and cost-effective mitigation projects.

Flood Mitigation Assistance (FMA)

Grant Program	Purpose	Competition	Available	Non-Fed. Share	Application Timeline
Flood Mitigation Assistance (FMA) Program	<p>Pre-Disaster Flood Hazard Only</p> <p>Funds plans & projects to reduce flood damage risk to structures with flood insurance coverage</p>	Nationally Competitive	Annually	<p>0% for SRL</p> <p>10% for RL</p> <p>25% for all other properties</p>	<p>Due to State ~3 months after federal announcement, which typically occurs in the spring.</p> <p>See WA EMD announcement at http://www.emd.wa.gov/grants/grants_hazard_mitigation.shtml</p>

Grants are available for planning initiatives to update the flood hazard portion of an applicant's hazard mitigation plan and for cost-effective flood mitigation projects.

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Discussion Questions

1. What actions do you currently take to reduce risk and mitigate hazards? What plans do you have in place?
2. What additional actions can you take? What are most feasible?
3. What tools should we focus on to implement these measures?

Follow-up

- **Next Steps**

- Final Risk Report by April 30, 2016
- Delivery of Risk Database
- Risk Database Webinar?
- Follow up actions – Sally Cox

Questions & Comments

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Flood Insurance Information:	www.floodsmart.gov	