

**FEMA REGION X
RISK MAP DISCOVERY INTERVIEW
CITY OF BINGEN, WASHINGTON
June 25, 2015 11:30 AM PST**

Participants

City of Bingen

- Jan Brending, Bingen City Administrator

FEMA Region X

- Ted Perkins, Regional Engineer
- Kelly Stone, Risk Analyst

State of Washington

- Michelle Gilbert, ECY

Resilience Action Partners (RAP)

- Kathleen Warren, Region X CERC Lead

STARR (FEMA Contractor)

- Josha Crowley, Regional Service Center (RSC) Lead
- Adam Pooler, GIS Lead/Senior GIS Analyst
- Andy Dobson, Senior Planner

Discussion

Josha Crowley made introductions and presented an overview of the Risk MAP program and the different projects and products that can benefit communities. Our overall goal is discovering how FEMA can help Bingen become a more hazard and disaster-resilient community. A copy of the presentation is included with these meeting notes as Appendix A.

Pre-Discovery Meeting interviews with communities within the Middle Columbia-Hood Watershed have been scheduled throughout June and July, 2015. Discovery Meetings are scheduled for July 20, 21 and 22, 2015.

The following information was collected during the interview. Unless otherwise noted, all comments are from Bingen representatives.

Community Contacts

- Mayor Betty J. Barnes added to contact database

Fact Sheets and Discovery Mapping

The draft Discovery Map illustrates a variety of geographic data from state, national, and (when possible) local sources. These include basic geologic and geographic features, jurisdiction boundaries, hazard locations, critical facilities, floodplain data, infrastructure, aerial images, and environmentally sensitive areas. One reason for this interview is to review and refine the draft Discovery Map before the in-person Discovery Meeting with the community.

- The mapped course of Dry Creek is inaccurate—this channel was relocated and piped to the west adjacent to Bingen Lake near the confluence with Columbia River. It eventually outlets into Jewett Creek. Jewett Creek channel is also piped into Columbia River. Stream courses will be updated on the draft Discovery Map
- Critical facilities ordinance and mapping information is available on the Bingen website. The critical facility mapping will be added to the draft Discovery Map
- Bingen relies on departments within Klickitat County Government for GIS mapping and datasets

Planning

- Critical facilities in Bingen include the WWTP plant and water towers located in hillsides above town
- Bingen has a local Emergency Management Plan, Shoreline Management Plan, and Critical Areas Ordinance, but not a FEMA-specified Hazard Mitigation Plan
- These planning projects have made inaccurate floodplain mapping more of a critical issue—everything else they are trying to do is hampered by poor quality floodplain mapping

Earthquake Hazard

- Although there are inactive fault lines nearby, there has been no recent earthquake activity in Bingen. An earthquake several years ago centered on Olympia, WA was mentioned during the interview, as well as increased seismic stress recorded on Mt. Hood
- There is generally increasing awareness that the Pacific Northwest was once an active seismic area and may be again someday
- The two water towers serving Bingen would likely be impacted by an earthquake event

Wildfire Hazard

- Bingen has a very high wildfire risk level. There is constant watch on hillsides surrounding community, and a lot of concern over current drought conditions and hot winds. Usually these kinds of conditions arrive in late summer
- Vulnerable hillside wildfire locations will be highlighted on draft Discovery Map

Landslide Hazard

- Overall the landslide risk level is low. The nearby SDS quarry mentioned as there was a recent landslide event east of town

**FEMA REGION X
RISK MAP DISCOVERY INTERVIEW
BINGEN, WASHINGTON**

- Recent property development in White Salmon and de-vegetation of slopes has created an unstable area that the community is concerned with and is listed in the critical areas ordinance (indicated on draft Discovery Map)

Severe Storm Hazard

- Very high windstorms and winter ice storms are typical
- Winter storms do not impact major roadways as severely as areas south of Columbia River because of sun angle melting and warming roadways
- Blackouts occur regularly associated with severe windstorms (Bingen served by Klickitat County Public Utility District)
- There is not a great need for storm shelters in Bingen. Rural areas more concerned with sheltering

Emergency Communications

- Bingen relies on the Klickitat County Emergency Management Notification System
- There may be some issues with false warnings of events, but the notification system is relatively new and Klickitat County is working out procedures

Flood Hazard

- There was discussion of a roughly 10-year cycle of floods beginning in 1996 from channels violently washing out and bringing rock and debris down from hillsides surrounding town. Reduced precipitation and regular stream channel maintenance have all but eliminated these floods
- There was discussion of storm/urban flooding along Route 14 when Dry Creek backs up from debris and releases at the downstream outlet. This happens frequently enough that they have mitigation procedures in place and staff on call during storm events
- Construction/rebuilding along Hwy 14 included improvements to culverts to improve alignments and flow constrictions
- Other rock falls and washouts create pinch points blocking up channels and culverts. Water then can easily close down roadways and spread across adjacent properties (hazard areas indicated on draft Discovery Map)
- Hazard vulnerability depends on weather patterns—winters with lots of snow result in heavy melting upstream from city, and more vulnerability to washouts
- Q3 FIRM data is the best available flood hazard mapping data. Bingen is not happy with current studies and mapping and therefore new studies and new mapping would be “amazing for community”
- Permitting and administering floodplain regulations is difficult because of inaccurate floodplain maps. Property owners either don’t know if they are vulnerable to flooding, or are compelled to carry flood insurance when there is no concern
- New floodplain studies include a shoreline management program project

**FEMA REGION X
RISK MAP DISCOVERY INTERVIEW
BINGEN, WASHINGTON**

- There is generally increasing awareness in community about the importance of stormwater management, upgrading and maintaining storm sewer infrastructure and programs
- Updating FIRM would be expensive and complex. Josha mentioned that LOMA process may be more appropriate for Bingen instead of comprehensive river system restudy along Columbia River

Levees

- Dickey Farms Property is indicated on the draft Discovery Map on east side of town outside city limits—agricultural operations on fill land, vulnerable to any levee failure
- Additional historic levee indicated on the draft Discovery map—land may have been filled and raised to top of former levee structure. The area appears to be used for a harbor now

Environmentally Sensitive Areas

- Columbia River Shoreline was discussed, although it is mostly developed in Bingen. There is a new shoreline management plan project underway

Communications and Outreach

- Current community outreach/engagement efforts include a community website. Bingen is looking into Facebook, but public record requirements from state makes social media outreach more complicated
- Jan has used a personal Facebook page to post things publicly which has worked because Bingen is a very small community and word travels quickly
- Bingen also has a community newsletter which is good for general communication but obviously not emergency alerts
- The community would appreciate accurate floodplain maps after dealing with what they have for many years
- Bingen is interested in the use of Risk MAP products for outreach, communication, and education

Compliance and Training

- Additional training and support would be extremely helpful for Bingen —permitting and review is difficult right now, explaining how process works to residents and ensuring all requirements are satisfied
- Especially since existing flood mapping is so inaccurate, people are required to go through permitting and regulations even though it makes no sense geographically

Next Steps

STARR will continue to coordinate with Bingen on the upcoming Discovery Meeting dates, times, and locations.

Appendix A: Interview Presentation



FEMA

Risk MAP Discovery

Middle Columbia-Hood Watershed

Information Exchange Sessions
June 2015

RiskMAP
Increasing Resilience Together



Information Exchange Agenda

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

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



RiskMAP

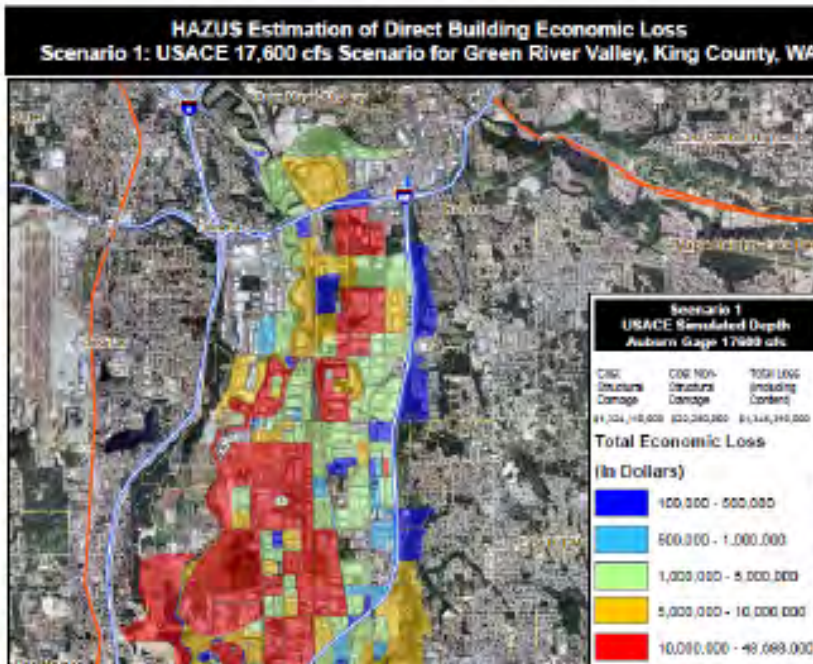
Increasing Resilience Together

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

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 +

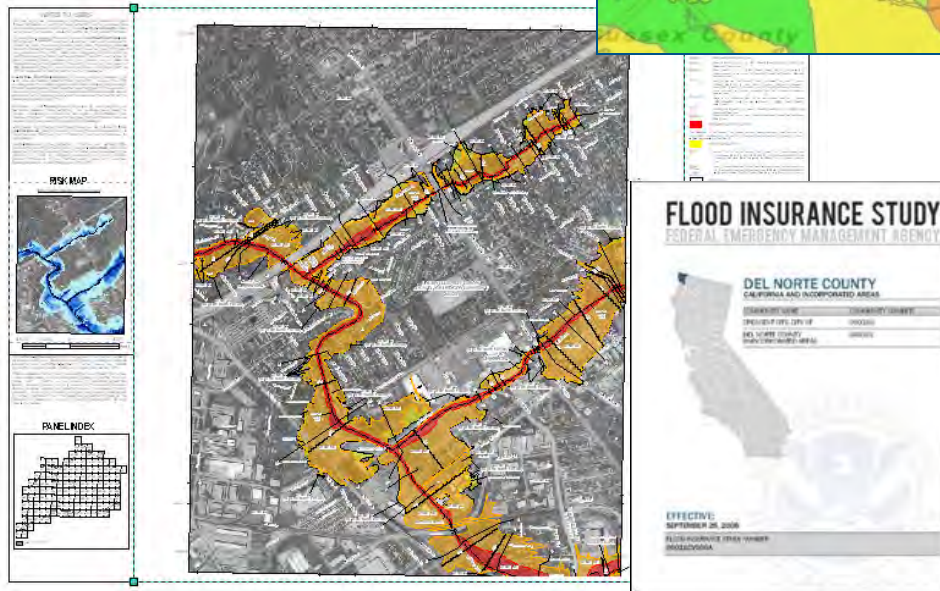
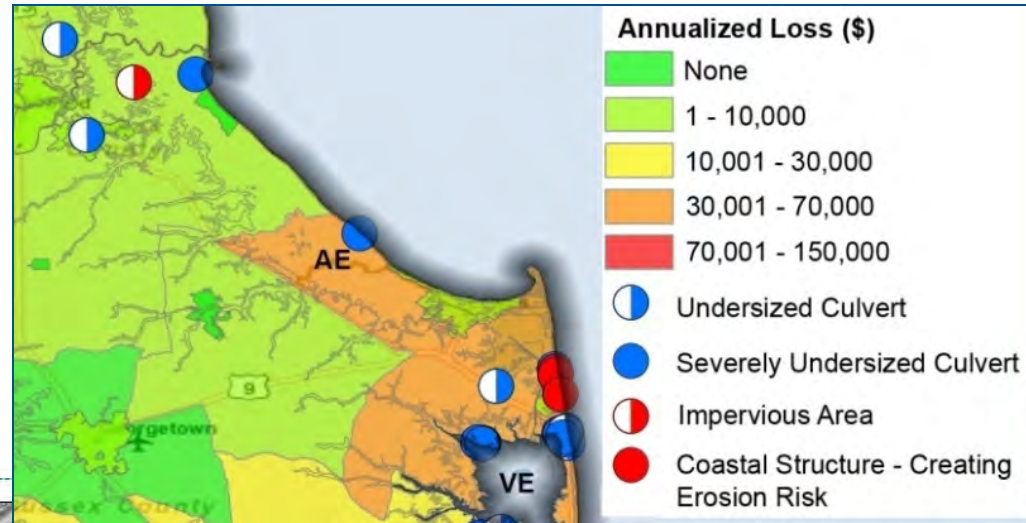
HAZUS Risk Assessment & National Flood Risk Layer

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



Middle Columbia-Hood 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?
- **Pre-Discovery Interviews: June 2015**
- **Discovery Meetings: July 20-24, 2015**
- **Risk MAP Project(s) Identified**
- **Possible FEMA Funding Allocated for Risk MAP Project**

Discovery Interview

- **Local Contacts**
- **Data**
 - LiDAR
 - Local or Regional GIS Data
- **Mitigation Planning**
 - Desired Mitigation Projects
- **Local Hazards**
 - Earthquakes
 - Wildfires
 - Landslides
 - Severe Storms
 - Flooding
- **Levees**
- **Environmentally Sensitive Areas**
- **Communications and Outreach**
- **Compliance and Training**

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

Questions?

FEMA

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

WASHINGTON

- **Jerry Franklin, State Risk MAP Coordinator, jfra461@ecy.wa.gov**
- **Morgan Mak, Mitigation & Recovery Strategist, morgan.mak@mil.wa.gov**

STARR

- **Emily Whitehead, emily.whitehead@stantec.com**
- **Adam Pooler, adam.pooler@stantec.com**
- **Becca Fricke-Croft, becca.croft@starr-team.com**
- **Joshua Crowley, joshua.crowley@starr-team.com**

Resilience Action Partners

- **Kathleen Warren, kathleen.warren@mbakerintl.com**