

**FEMA REGION X  
TOWN OF ENTIAT, WASHINGTON  
RISK MAP DISCOVERY INTERVIEW  
March 24, 2015 9:00 AM PST**

**Participating**

Town of Entiat, Washington

- Susan Driver, Community Development Director

State of Washington

- Jerry Franklin, Department of Ecology
- Michelle Gilbert, Department of Ecology

FEMA Region X

- Amanda Siok, Region X Risk Analyst
- Ted Perkins, Region X Engineer

STARR (FEMA Contractor)

- Becca Fricke-Croft (Meeting Host)
- Troy Sova, Senior GIS Analyst
- Andy Dobson, Senior Planner

**Discussion (Becca)**

Becca Fricke-Croft made her introductions and then announced the other participants in the meeting. Becca then presented an overview of the RiskMAP program. She first explained that RiskMap is a collaborative process that provides high quality data to the local communities that can allow communities to raise public awareness and become a more hazard resilient. She then went on to explain the different products that the RiskMap program offers to the local communities. She discussed the initial stage of the RiskMap process called “Discovery” which involves gathering background information to prioritize RiskMap projects for the community. A copy of the presentation is included with these meeting notes as Appendix A.

Pre-Discovery meetings and interviews with communities within the Wenatchee Watershed have been scheduled throughout March and April, 2015 and Becca announced that the official “Discovery Meeting” for the Town of Entiat is scheduled for the week of May 4 – 6, 2015. After the meeting, Starr would put together a “Discovery Report” that would influence FEMA in determining which RiskMap projects would be initiated for the Town of Entiat.

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*The following information was collected during the interview. Unless otherwise noted, all comments are from the Town of Entiat representatives.*

Initial Questions

- Is FEMA aware of the sources from Chelan County? Chelan County has a county-wide multi-hazard management plan available through the Natural Resource Department and Chelan County Engineering in the Public works department is in the process of working on a comprehensive flood control management plan. Becca responded that we have a copy of the county's plan and we plan to reach out to the county to do a similar interview with the county. Later in the meeting Michelle added that she would be sitting in on a meeting to develop the flood hazard management plan and she can help to bring together ideas.
- Is the project within the Antiot Watershed? Becca responded that the project is within the two counties (Chelan and Okanogan County), but she referred to Troy to speak to the project footprint in more detail. Susan referred to Mike Rickle at the Cascadian Conservation District for more information about the Antiot Watershed.

Additional contact information

- Bob Whitehall—Bob is a former Town official with lots of knowledge who will be valuable to project. He consults with various agencies such as parks, public works, etc.
- The contact information STARR has for the Mayor of Entiat contact checks out.

Confirm collected data provided

- Troy provides a list of available GIS sources and data:
  - County -- political boundary, transportation, and parcels
  - State – landslide, landform, critical facilities, floodplain (Q3 flood data, no map mod)
  - National – dams, stream gages, levees, earthquake, wildfire, tornado
- Troy asks for additional environmentally-sensitive areas or critical facilities data
  - Susan noted that the Town of Entiat does not have a GIS department. Susan has been doing some GIS, but Erlison Engineering will be taking over the Town's GIS needs.
  - Troy said that we may need to look at building footprints and he discussed that Aerial Imagery was from 2006 and will look into updated imagery
  - Susan mentioned that there are no levees in the Town of Entiat, with dams to the north and south of town with no floodplains because waters are regulated
  - Ted Perkins asked if Troy looked into Army Corps information—there is a flood study available for the Columbia River that may be helpful. Troy said he would look into this information.
  - Susan mentioned flow data and depth data for a marina project from the Town of Entiat may be available

**FEMA REGION X  
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TOWN OF ENTIAT, WASHINGTON**

Structures or facilities most valuable to the Town of Entiat

Susan provided a discussion on Park and Recreation developments and other critical facility, noting that more than half of the Town of Entiat along the Columbia River is Recreational. Susan mentioned that the park facilities were mapped in 2009. She mentioned that there are not really any mitigation projects in the Town of Entiat included in the flood hazard management plan, and mitigation may occur mostly up the Entiat river. The Town is more susceptible to earthquake than flood. The Town has been involved in the last two updates of the County's hazard management plan. The Town receives funding for development projects (mentioned below) through awards and grants.

- A new riverfront trail
  - Starting at the intersection of the Entiat River and the Columbia River. The trail goes under a bridge, through a Penton RV park (just underwent a 7 million dollar renovation), and stops at a small residential area near the WWTP, (Susan mentioned a new segment of Lake Shore Drive has been updated going north). The trail continues north of the WWTP (critical facility) , leading to a 19-acre marina which extends to Pine Meadows Drive
- A new marina development
  - Project began in 2008, our aerial photography dates to 2006, large gravel pit shown on our map existing map
  - Largest development project in town with tremendous improvement to recreation facilities potential for significant economic development boost to the community.
    - A separate mitigation plan in the works for marina site, but this mitigation is not part of the County's hazard management plan (i.e. the hazard management/mitigation plan was prior to the application for marina)
- Other Critical Infrastructure
  - School and Foundry

**Earthquakes**

- Last big one north of town was many years ago and "pretty serious" according to Susan. Smaller tremors occur more often (most recent a month ago).
  - seismic event
  - fault line to north of town
- No damage has occurred to buildings in the last 20 or 30 years
- Town Hall is an old structure that is not constructed to earthquake code
  - It cannot be retrofitted because of the condition of the building
- Other Town facilities (i.e. school and fire department) are updated to modern codes and more likely to remain standing.

**FEMA REGION X**  
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**TOWN OF ENTIAT, WASHINGTON**

**Wildfires**

- Forest Service (USFS) located in town
  - A boost to local economy during summer months when fire crew is in town
- Entiat is located near a large national forest in area and wildfires are a regular occurrence.
- Ground cover gets destroyed and runoff/erosion can cause mudslides which further impact the Town.
- Columbia Breaks fire interpret center (non-profit) has records of all fires, contact person is Dave Spees.
- Critical Structure vulnerability: water towers may be at risk, other Town facilities are fairly safe from fire.
- Issues with wildfire removal of erosion control like vegetation can cause flooding and landslides

**Landslides**

- Entiat does not typically have a lot of landslides because it's mainly gravel
- Issues with wildfire removal of erosion control like vegetation can cause flooding and landslides
- Some hillside roads have issues with storm water runoff that floods out downhill properties.
  - Disk Ranch Road is a dirt road on a steep slope, every year it gets rutted and damaged, and to residence below the road have had some issues in the past with flooding and filling of culverts to but has resolved that issue
- The County is working on mitigation efforts within the hazard plan

**Severe Storms**

- Lightning generally cause of most wildfires.
- Crop damage can result from high winds and hailstorms.
- Power outages usually result from windstorms, can sometimes be out for a week or more in some places (in a worst-case scenario).
- Entiat doesn't have an identified shelter but refers people to the school buildings or grange hall
- In the process of developing an Emergency Response Plan
- No major damage to buildings
- Communication/warning systems use Facebook, radio alerts, and door-to-door in some areas.

**FEMA REGION X  
RISK MAP DISCOVERY INTERVIEW  
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**Flooding**

- The Columbia River never floods unless upstream dam fails. Dam operators have tight control over water levels. Floodplain maps are accurate along the Entiat River but not along Columbia River.
- Flooding occurs every year along Entiat River. Ice damming is especially a problem in wintertime. There have been many of flood studies over the years.
- Susan mentioned a culvert was built without a permit, violation notice on Disk Ranch Road
- The Cascadia Conservation District and Entiat Watershed Group have flood and river flow data available.
- Property owners along Entiat River understand the need for flood insurance, and building regulations necessary for protecting structures from flood damage
- Floodplain delineation appears accurate on the Entiat River but not so on the Columbia (because the Columbia never floods)

**Local communication strategy, public interest, and outreach**

- Twice yearly a newsletter from the Town
- Other sources include utility billing, Local Radio or Local newspaper
- School newsletter one of the best outlets to reach community.
- The Town of Entiat has regular meetings with Chelen County Emergency Management to share information like calling lists.
- Becca described various tools and templates available through FEMA for helping with outreach efforts. Susan would be very interested in more information.
- The Entiat Chamber of Commerce, Boy Scouts, Women's Club, A Grange, Service Club were mentioned as additional outlets for communication and training.

**Regulations**

- Susan is well-versed with the various regulations/codes related to flooding and floodplain management.

**Next Steps**

- Meeting locations were discussed and possibly grouping neighboring communities together for upcoming Discovery Meetings.
- Susan mentioned Wenatchee is a good central location, and that we should contact Laura Jakes about possibly using the Port Authority Building. Visit the Port of Chelen County Website.

## **Appendix A: Interview Presentation**



FEMA

# Risk MAP Discovery

## Okanogan & Wenatchee Watersheds

Information Exchange Sessions  
March/April 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

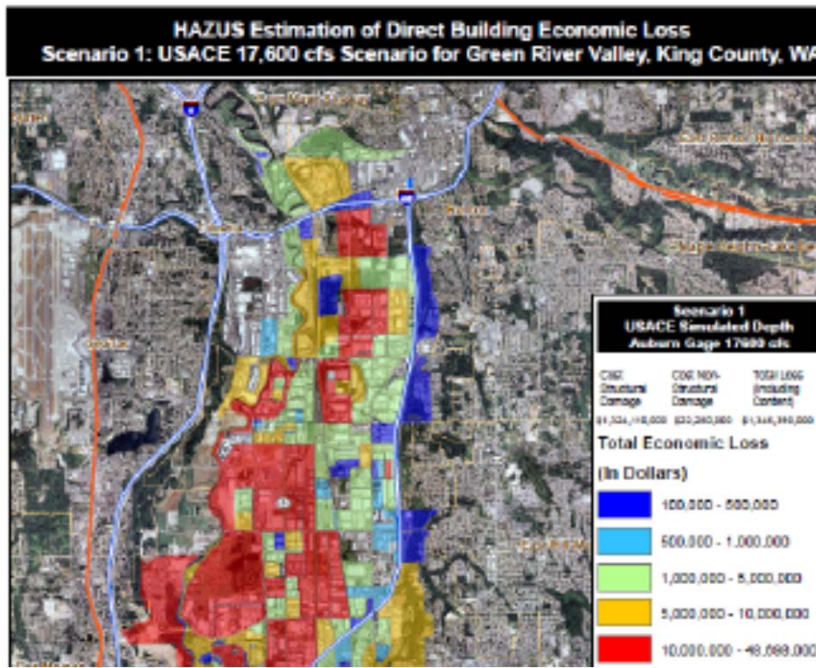
Increasing Resilience Together

- 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 +

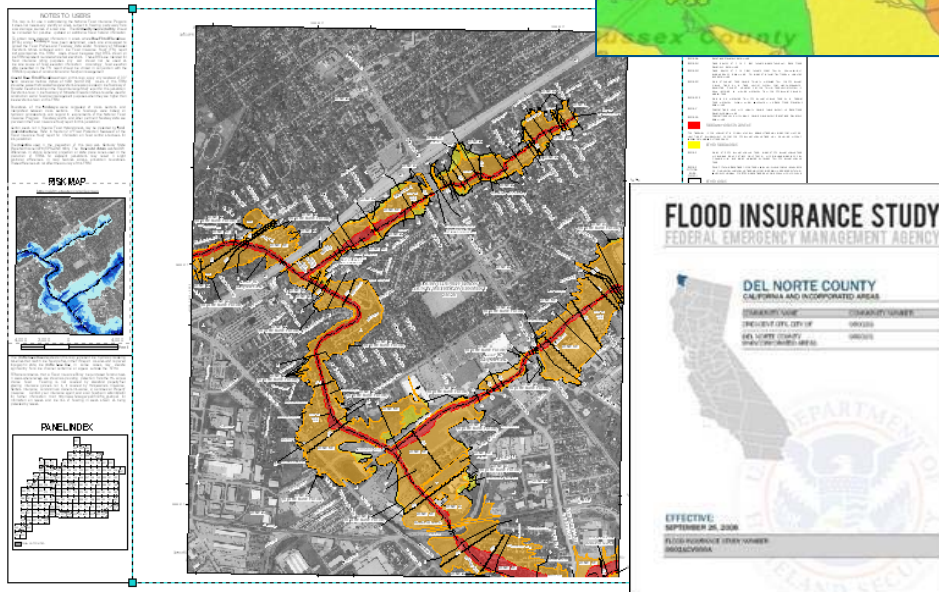
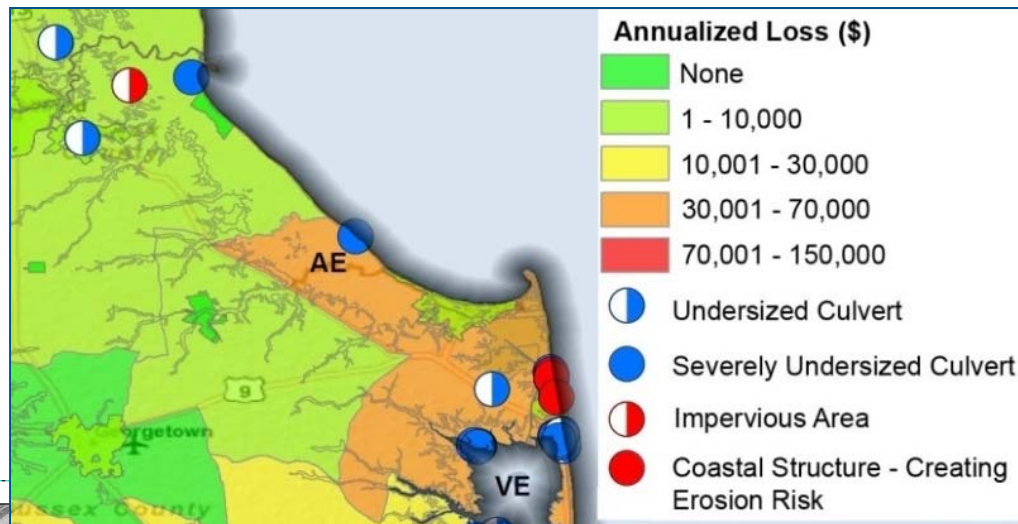
## HAZUS Risk Assessment & National Flood Risk Layer

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



# Okanogan & Wenatchee 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: March/April 2015**
- **Discovery Meetings: May 4-6, 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

- **Amanda Siok, Risk Analyst, [amanda.siok@fema.dhs.gov](mailto:amanda.siok@fema.dhs.gov)**
- **Kristen Meyers, Mitigation Planner, [kristen.meyers@fema.dhs.gov](mailto:kristen.meyers@fema.dhs.gov)**
- **Ted Perkins, Regional Engineer, [dwight.perkins@fema.dhs.gov](mailto:dwight.perkins@fema.dhs.gov)**

## WASHINGTON

- **Jerry Franklin, State Risk MAP Coordinator, [jfra461@ecy.wa.gov](mailto:jfra461@ecy.wa.gov)**
- **Michelle Gilbert, Floodplain Management Specialist, [migi461@ecy.wa.gov](mailto:migi461@ecy.wa.gov)**

## STARR

- **Emily Whitehead, [emily.whitehead@stantec.com](mailto:emily.whitehead@stantec.com)**
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