

**FEMA REGION X**  
**RISK MAP DISCOVERY INTERVIEW**  
**CHELAN COUNTY, WASHINGTON**  
April 17, 2015 11:00 AM PST

**Participating**

Chelan County

- Mike Kane
- Mitch Johnson
- Jason Detamore
- Rich Magnussen
- Kent Sisson
- Lynn Palmer

State of Washington

- Michelle Gilbert

FEMA Region X

- Ted Perkins

RAP (FEMA CERC Provider)

- Kathleen Warren

STARR (FEMA Contractor)

- Becca Fricke-Croft, Meeting Host
- Emily Whitehead
- Adam Pooler
- Troy Sova
- Andy Dobson

**Discussion**

Becca Fricke-Croft made introductions and presented an overview of the RiskMAP program and the different projects and products that can benefit communities. Our overall goal is discovering how FEMA can help Chelan County become a more hazard and disaster-resilient 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. The Discovery Meeting is scheduled for May 6, 2015 from 9:00 to 12:00 at the Chelan County Administration Building Library.

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

#### *Community Contacts*

Chelan County representatives reviewed our contact list and suggested removing Gene Ellis as he is retired and will not be participating in the Discovery process. Becca asked about Steve Vaughn and if there was any contact information available. Chelan representatives were not sure who he is, but will look into him for us.

#### *Fact Sheets and Interview Maps*

- Troy Sova described the data we've collected so far, how we've been able to illustrate it on the draft Discovery Map (which will be available for viewing and reviewing at the Discovery Meeting), and asked meeting participants who we might contact for additional information.
- Mitch Johnson is the Chelan County public works/GIS representative. Mitch is on the call and can be reached at [mitch.johnson@co.chelan.wa.us](mailto:mitch.johnson@co.chelan.wa.us). Troy will coordinate with Mitch on getting additional data layers, and can transfer these documents through Stantec FTP site.
- Information STARR would like to add to the Discovery Map includes environmentally sensitive areas, critical facilities, levees, and building footprints.
- Some critical facilities are mapped from state and federal data sources. These include hospitals, bridges, and Army Corps-certified levees.
- Fault lines, wildfire locations, and tornado paths are also available from outside sources, and can be revised with local information through this interview and the Discovery Meeting.
- Chelan County does not have digital floodplain mapping available. The best information today is Q3 data from digitized FIRM maps. This is not the most accurate floodplain mapping, and Chelan County would benefit from an updated flood study.
- Local salmon recovery projects might have stream hydrology and LiDAR data that could be added to the Discovery Map.

#### *Planning*

- Chelan County is noted for its agricultural areas and fruit orchards growing apple, pear, and cherry trees.
- The topography is very rugged with steep slopes and canyons surrounding the valley bottom areas where most development and agricultural land is located.
- Chelan County has a current hazard mitigation plan that was originally adopted in 2006 and is on a roughly five-year update cycle. The current version dates to 2011. It is a somewhat abbreviated plan which provides a "10,000-foot" overview of hazards facing the community, but does not address details of mitigation project planning and funding.
- Chelan County recognizes that the plan is not actively used and is taking steps to become much more active in hazard mitigation through the new flood control district and other capital improvement projects.

- Top hazard mitigation priorities for Chelan County are wildfire hazards and flash-flooding from severe storms. Canyons #1 and #2 adjacent to the City of Wenatchee were specifically mentioned because of the repeated flooding/debris torrents in these locations causing damage to the community.

#### *Earthquake Hazard*

- Earthquake hazard is not a priority concern for the County. There are fault zones, but communities have not experienced any damage from occasional tremors.
- If a large event were to happen, vulnerable locations include the dams along the Columbia River. Emergency plans which include inundation mapping are in place for these facilities.
- Bridges are also considered vulnerable locations.
- The County does not have any current mitigation efforts for earthquake hazards.

#### *Wildfire Hazard*

- Wildfire hazard is a priority concern, especially considering the 2014 fire season and the vast damage resulting from the Caldwell Complex Fire.
- Vulnerable facilities mentioned include cellular towers and radio antennas—loss of these can result in communications being knocked out during an emergency.
- Chelan County is very active in outreach to residents regarding wildfire hazards and mitigation strategies. The Forest Ridge community was specifically mentioned as an example of the Firewise Communities program.

#### *Landslide Hazard*

- Landslide hazard is also a priority concern, related to flash flooding and alluvial flows from the many canyons around the County.
- County officials stated that almost anywhere there is development or infrastructure is vulnerable to landslides and debris flow because of steep slopes and canyons located nearby.
- South Lake Shore Road was mentioned specifically because of the hazard level and a culvert/diversion structure that was built to channel debris flow under the roadway and into Lake Chelan.
- The Chelan County Planning Department administers geo-hazard assessments for new construction to regulate how new buildings are built, but not to alter where new construction takes place.

#### *Severe Storms*

- Severe storms are a random hazard that are cause for some concern. In 2012 there was a disastrous winter storm near Lake Wenatchee that brought down thousands of trees, knocked out power, and closed local roadways for an extended period. There were some deaths and injuries as a result of this storm.

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- Extended power outages from storms are very unusual—utilities can get back online quickly in most cases. Shelter needs are also unusual as residents are mostly self-sufficient during storm emergencies. The Red Cross opens shelters but very few people use them.

*Emergency Communications*

- Communication used by Chelan County includes local media outlets (radio and newspaper) and a Facebook page hosted by the Sheriff's Department. The Facebook page works especially well and has 16,000 followers. A Twitter feed is integrated into the page to better ensure posted information is displayed in the correct (date-stamped) order.
- Chelan County is looking into a call system which could target limited numbers of residents and cell phones for focused warnings.
- Overall, the County and Sheriff go out of their way to provide accurate information to residents and not let rumors about emergencies take on a life of their own.
- An important project brought up by County officials is a discussion underway about how to improve National Weather Service radar coverage in Chelan County.
- Radar coverage comes out of Spokane currently but does not give a good read on local storm events.
- Funding is the stumbling block to solving this problem, and Chelan County is working with US Congressional Representatives on an appropriation/feasibility analysis.

*Flood Hazard*

- Alluvial flow and debris torrents from flash floods washing into developed areas is more of a flood concern than riverine flooding. These kinds of floods do not have a lot of warning or predictability, and are difficult to pinpoint on a map because there are so many potential vulnerable areas.
- #1 and #2 canyons near Wenatchee were mentioned, and the Claukum Creek area in southern Chelan County. Wenatchee floods in particular have caused tens of thousands of dollars' worth of damage two or three times in the last five years. The City of Wenatchee has done a good job of mapping debris flow within City, areas that are damaged.
- FIRM data available for Chelan County is inaccurate and there is need for an updated flood insurance study and digital map data. Some flood-vulnerable areas were mentioned in the interview, and County officials will work more at the Discovery Meeting to mark areas on the Discovery Map.

*Levees*

- The only Army Corps registered levees are located in City of Cashmere, and these may not be certified for much longer because of maintenance issues and vegetation growth. Other levee structures in the county are "informal" . Some location data for these may be available through local salmon-recovery projects.

*Environmentally Sensitive Areas*

- The State of Washington has available data on priority habitat and species. There are some privacy issues with obtaining this information. Chelan County will look into this and may have it available at the Discovery Meeting.

*Communications and Outreach*

- Chelan County conducts lots of outreach regarding wildfire hazards and evacuation plans. They are developing one-page flyers to send out through US Mail with fire mitigation and protection information for residents.
- Community meetings also work well for outreach and information sharing, and the County often asks to be included on the agenda of an existing organization's regular meeting. This strategy gets the message out to a wider audience than a specific hazard-related meeting.
- The Department of Public Works coordinates with City of Wenatchee to remind people of the danger of canyon flooding—haven't had a lot of success with reaching people or changing behavior. They would like to know from FEMA if there is anything better they could attempt.
- Key players regarding communications/outreach include the Fire chiefs association of north-central Washington, the Red Cross, various religious organizations and churches, local emergency management organizations, and the LEPC.
- Becca mentioned the communications and outreach materials available through FEMA. Chelan County would be very interested in learning more about this at the Discovery Meeting.

*Compliance and Training*

- Doug Lewen is the Chelan County Floodplain Administrator. His work will soon be augmented with public works staff and resources for more detailed permitting review. Additional training and support would be helpful—overall getting more County personnel educated about regulations and other flood management topics.
- The new comprehensive flood district plan will deal with many floodplain and flash-flooding issues, and will tie into building the County's CRS program.

*New Floodplain Control District*

- Repeated infrastructure damage and associated replacement costs from flash flooding motivated Chelan County to create a new flood control zone district.
- The County is trying to be more proactive in solving flood problems instead of simply cleaning up afterwards.
- The district is tied in with capital improvements and leveraging funding from different sources. The Chelan Board of County Commissioners oversee the district and the County Engineer administers operations.
- Annual budget is \$600,000.00.

### Next Steps

- County officials would like to discuss more about RiskMAP in general and how the program can support ongoing Chelan County projects before and Discovery Meeting next month. They would also like to update critical infrastructure data within County GIS system in order to know where things are, what their vulnerabilities are, and management during emergencies.
- The Discovery Meeting is scheduled May 6, 2015, 9:00 AM PST

## **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

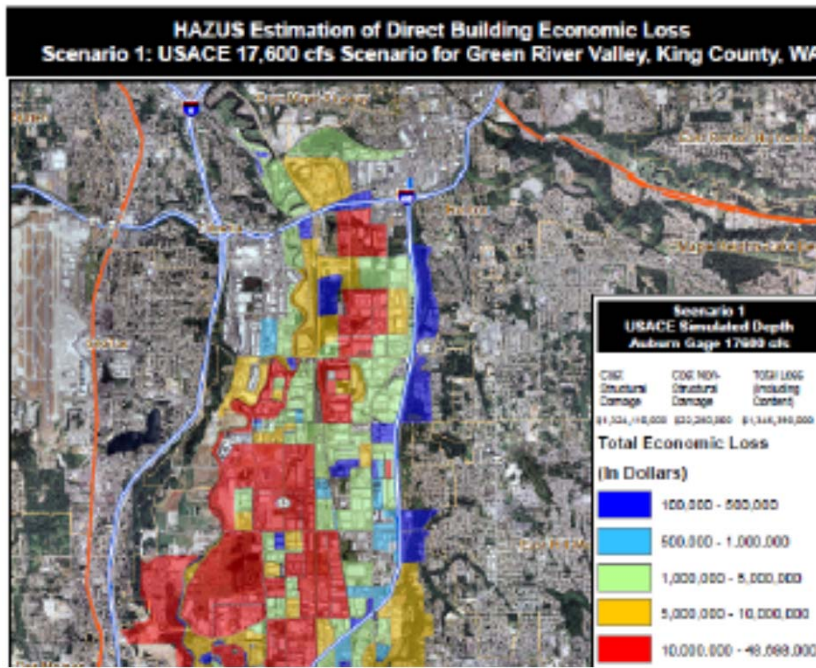
Increasing Resilience Together

- 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 +

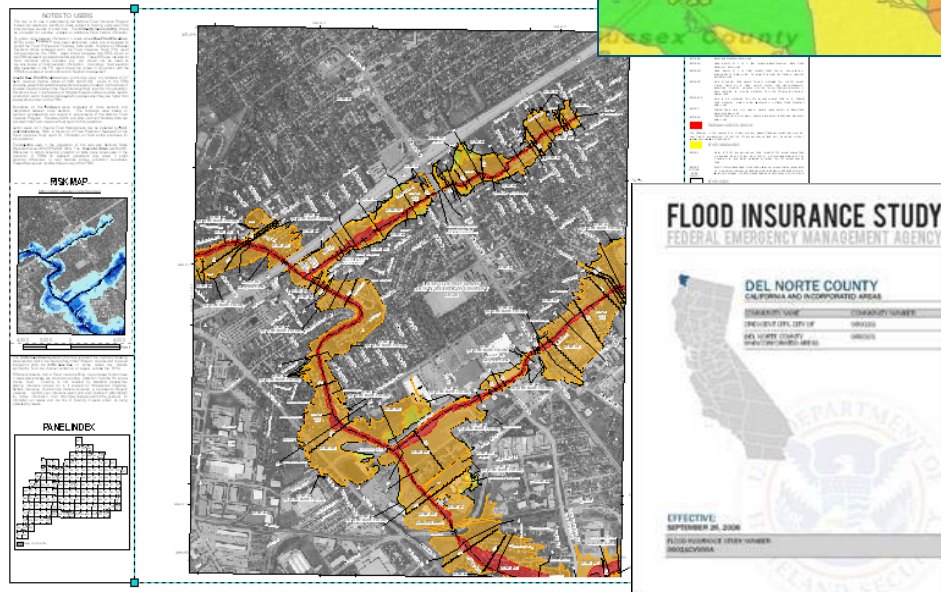
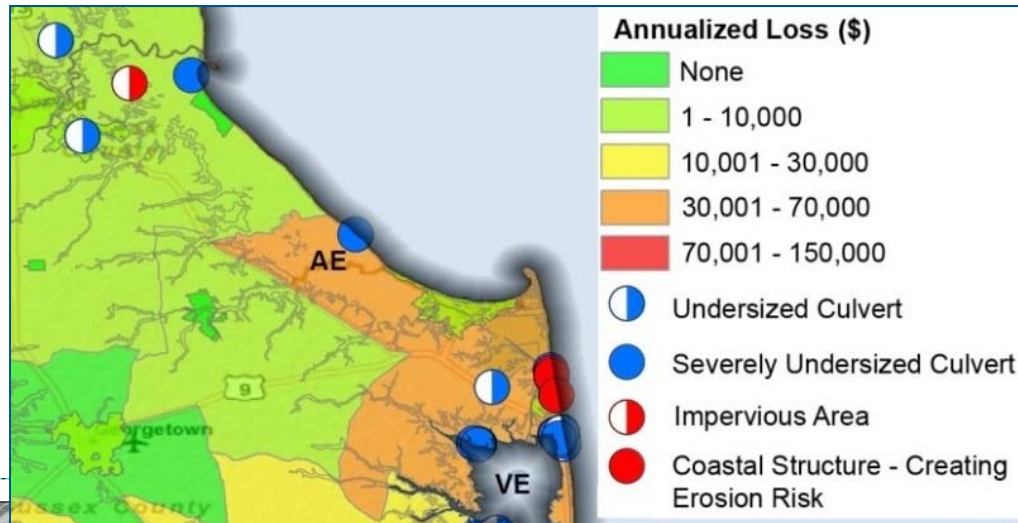
## HAZUS Risk Assessment & National Flood Risk Layer

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)**
- **Troy Sova, [troy.sova@stantec.com](mailto:troy.sova@stantec.com)**
- **Becca Fricke-Croft, [becca.croft@starr-team.com](mailto:becca.croft@starr-team.com)**