

**FEMA REGION X  
RISK MAP DISCOVERY INTERVIEW  
CITY OF OKANOGAN, WASHINGTON  
March 31, 2015 11:00 AM PST**

**Participating**

City of Okanogan

- Christopher Johnson, Director of Planning
- Christian Johnson, Building Official/Permit Administrator

State of Washington

- Jerry Franklin, Department of Ecology

FEMA Region X

- Ted Perkins, Region X Engineer

STARR (FEMA Contractor)

- Becca Fricke-Croft, Meeting Host
- Troy Sova, Senior GIS Analyst
- Emily Whitehead, Project Manager

**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 Leavenworth 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 Okanogan Watershed have been scheduled throughout March and April, 2015. The Discovery Meetings are scheduled for Monday, May 4, and Tuesday, May 5, 2015.

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

Community Contacts

- The contact list was updated with the new Mayor of Okanogan, Chris Culp.

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Confirm collected data

- Troy discussed the data, in particular GIS base map data that has been collected thus far during Discovery from local, State and Federal resources.
- Troy explained that the floodplain data shown on-screen is Q3 data captured from the “old” effective paper FIRMs. “Q3 floodplains” is a GIS layer depicting flood hazard boundaries that were “rubber-sheeted” or digitized from the paper FIRMs.
- Troy mentioned that the project team could use any available information regarding environmentally-sensitive areas or critical facilities that are not available on statewide datasets. This could either be a downloadable dataset or indicated on a map during this phone interview.
- Troy asked if the City had local GIS datasets to share with this Discovery effort or if the City relies on the County for spatial information, which Chris responded that they do look to the County for data information (Assessors Office & Google Earth).
- Chris points out the contact at the County for GIS data would be Gene Wilson
- During the map discussion, Chris recommended that our Discovery Map use hatching and patterns instead of colors because a local official is color-blind and will have difficulty interpreting what is illustrated.
- Chris mentioned the City’s website that has downloadable PDFs of the Critical Areas maps
- Troy will work with Okanogan to download critical area maps from the City website and incorporate the information into the Discovery Map
- Chris adds an EMS location to the map for the “Critical Facilities” layer
- Chris also made a request that the maps rely more on hatching patterns instead of colors because several officials he works with are color blind.

During the final half of this interview, Becca will be asking questions designed to spark discussion with the City of Okanogan regarding Resilience.

Planning

- The “Okanogan County, Washington Multi-Hazard Mitigation Plan” was revised in 2013 and the City of Okanogan participated and is covered by the plan.
- The City does not particularly like the Hazard Mitigation Plan. Chris said it is not a very useful document for providing information that people could rely on to understand what to do in case of an emergency.
- Chris believes that the plan complies with certain items but they are looking to improve the plan in the future.

What is Valuable to the City of Okanogan? What does the City try to protect?

- The City is primarily a housing community with a central business area in the downtown core

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- The City, by default, became the center of having County complex with court house in the center of the City
- Some industrial areas but mainly housing areas
- Chris mentioned that the City views itself as the “hub” for recreation steaming from the City out to the other communities nearby that host other recreational opportunities.
- The City has many parks and they are in process of building a partnership with the school district to build more walking trails within the community.
- Critical infrastructure within the City would be the Jail facility, Sheriff’s Office, Court House facility, new Oak St Bridge, Sewage Treatment Plant.
- Chris mentions that they have two bridge crossings over the Okanogan River that would be key infrastructure, one 4-5 miles to the north of the City for emergency response.
- Chris also mentions about the packing facilities that are considered key infrastructure
- Chris talked about a partnership project with the Colville Tribes where the City is restoring/rehabbing part of the Okanogan River to increase flow and doing a variety of habitat. projects and would like to know how that affects the flood maps.
- Ted answered the question by talking about filing LOMRs so that the maps properly reflect the work.

**Earthquake Hazard**

**History**

- The City has a lot of buildings that were built in the 1920s, low-lying 2-3 story masonry material
- Two (2) years ago the City experienced this hazard. Magnitude of 4+

**Damage**

- Noticeable cracks in the masonry building

**Vulnerable locations**

- The City is scheduled to replace two (2) of their reservoirs, one being over 50 years old and the other is 40 years old located by the airport. Structures were not designed for lateral movement

**Mitigation projects or initiatives**

- Not currently but in the long term Water Comprehensive Plan but not immediately pending

**“Tsunami” Like Hazard**

- Becca mentioned that she is going to skip over this hazard since it does not apply to the City, however, Chris replied that if two (2) reservoirs (dams) gave way northwest of the City near Conconully that it would be almost considered a tsunami.
- Chris spoke about the Conconully Reservoir which is the Bureau of Reclamation facility and if either of those dams were to break then the City would experience quite a bit of damage and could be considered as a realistic hazard to the City.

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- Chris mentioned that Salmon Creek is the drainage path from the Conconully Reservoir and is used for irrigation purposes. The Bureau fills the reservoir full during the months of March-April and excess water, combined with runoff in the City, causes lots of erosion within the City.

**Wildfire Hazard**

Risk level/concern

- o High priority like many communities in the area, higher priority than flood hazard

Vulnerable locations

- o Many areas shown on Discovery Map

Other needs

- o Concerns because Okanogan is a “pump” community—need for backup power generation and water plant and wells with reserve water supplies for drinking and fire-fighting. Chris will provide maps with locations from the Water Comprehensive Plan.

Mitigation projects or initiatives

- o The City has had campaigns for defensible space but it’s all voluntary and they can only do so much

**Landslide Hazard**

- Chris marked an area of concern around new development area that is experiencing erosion and landslides. Issue may take care of itself as develop continues.
- The City has had issues with rapid erosion from storm cells but no areas of “slippage”
- Area of steep slope around Parks Drive down to Conconully Road that is currently being developed and has had issues with the rapid erosion due to storms

**Severe Storm Hazard**

History and frequency

- o Last storm was back in 1997 with overloading of snow
- o The City does get occasional 2-3” of rain in 30-50 acre of area
- o City has experienced high wind events

Shelter needs and facilities

- o Yes, the City uses the High School

Communication and warning systems

- o Emergency Manger, Sheriff’s Office and local volunteer Fire Department provide getting the word out for the City

**Flood Hazard**

- FIRM comments, revisions, questions
  - o Need for updated flood study along Salmon Creek

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- o Bridge abutment damage has been experienced flood/erosion on four (4) of the structures that cross Salmon Creek (1<sup>st</sup>, 2<sup>nd</sup>, 5<sup>th</sup> Ave & Mill St)
  - o Mill St bridge was recently replaced to account for high velocity flow
  - o Chris mentioned that the Oak St bridge replacement was done in order to help reduce the damming effect from the 100 year event. This work has not been reflected in the FIRM data.
  - o Becca asked who did the modeling for the bridge replacement and Chris responded that a consultant through G&O (HEC-2) did the work and he could provide the data to STARR
  - o Chris mentioned that the local levee around WWTP not mapped or shown on FIRM as providing protection
  - o Chris mentioned there is an active oxbow north of the WWTP that should have mapped SFHA
  - o Area along Burton Ave is not mapped correctly based on the current Q3 data
- Other flooding issues or concerns
    - o Dams upstream of Salmon Creek are a potential hazard, City is unaware of any studies or inundation mapping
    - o Chris suggested to talk with the Bureau of Reclamation for more information on the two (2) dams
    - o Other local flooding is due from heavy rain storms

Levees

- Only ones that were noted on the map and certified by the USACE

Environmentally Sensitive Areas

- Areas identified in the community, others not shown on the map

Communications and Outreach

- Current community outreach/engagement
  - o Emergency notifications through Sheriff's Office and Emergency Management Agency
  - o Facebook was also used during the last emergency
  - o The City would consider partnering with the Conservation Districts or Non-profit that are a little more organized as opposed to the Chamber of Commerce

Compliance and Training

- Floodplain administrator
  - o The City thinks free training is good but to get to the central location is a time commitment and cost to the City
  - o Webinars/online training are good
- Training and support

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- o Training needs are a concern, community does not have the resources or funding to keep training current for all staff.
- o Chris suggested a topic for webinar trainings would be on elevation certificates, flood insurance rates for Pre-FIRM homes, differentiating between flood hazard reductions standards and building code requirements
- o Becca mentioned training that STARR offers, and asked what specific topics the City might need. Calculating insurance rates for pre-FIRM construction was discussed.

**Next Steps**

- Meeting logistics and potential locations were discussed. Details will be worked out later.

## **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

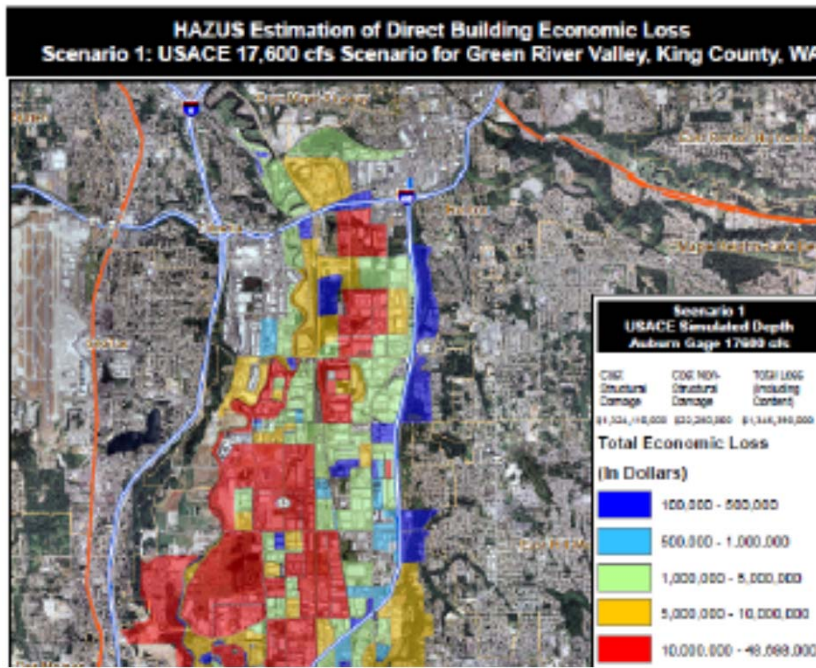
Increasing Resilience Together

- 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 +

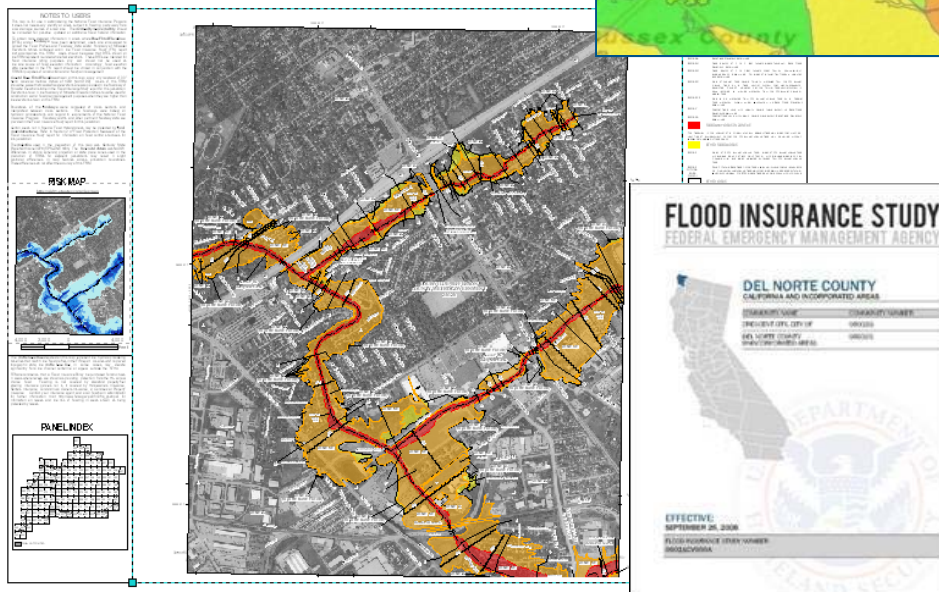
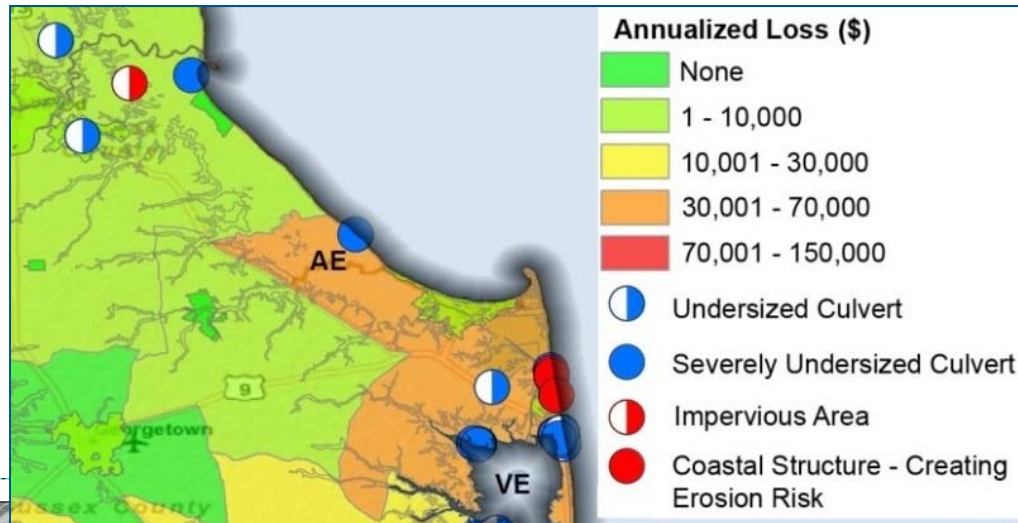
## HAZUS Risk Assessment & National Flood Risk Layer

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

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