



October 2011  
Volume 1, Issue 3

## Inside this Issue

- 1 Cascadia Subduction Zone Strategic Planning
- 2 Kodiak Pilot Multi-Hazard Risk Assessment
- 2 Region X Help Desk
- 2 Levee Policy Updates
- 3 Community Rating System
- 4 FloodMap Mobile
- 4 Funding for Riverine Studies Reduced
- 5 Training Opportunities
- 5 Suggested Reading
- 5 NEW! Ask the Help Desk
- 5 Upcoming Events

Strategic Alliance for Risk Reduction  
FEMA Region X Service Center  
20700 44<sup>th</sup> Avenue West, Suite 110  
Lynnwood, Washington 98036  
(425) 329-3699

# News from Region X

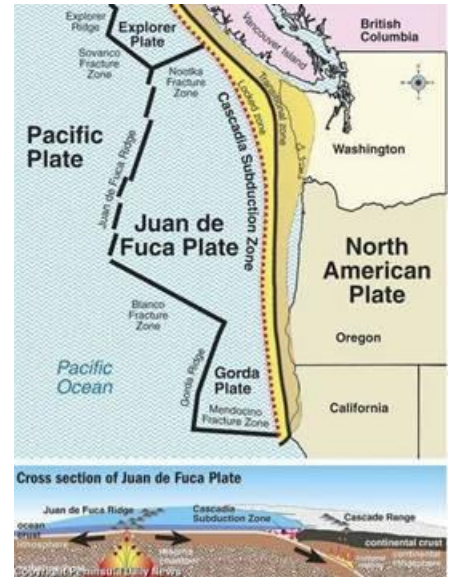
## Cascadia Subduction Zone Strategic Planning

FEMA Region X is involved in a collaborative effort to help states prepare for a large Cascadia Subduction Zone (CSZ) Tsunami and Earthquake event through the development of CSZ Response Plans. Following the devastation in Japan, the scary reality is that the Pacific Northwest is just as vulnerable to that type of event. Advanced planning, preparation and coordination will provide for faster and more effective response, and more lives saved.

Over the past few months members from Region X's Risk Analysis Branch, Response Division, and DHS's Homeland Infrastructure Threat and Risk Analysis Center (HITRAC) have worked to establish a baseline scenario that gives a first glance at the potential impacts resulting from a Magnitude 9 earthquake and resulting tsunami event.

FEMA used this analysis as the starting point for two week-long Information Analysis Workshops in Oregon and Washington. The goal of each workshop was to build knowledge about agency capabilities, roles, responsibilities and authorities into the Information Analysis portion of the catastrophic plan. Participants were asked to identify and agree upon potential physical impacts to communities and identify operational impacts to a variety of functions such as transportation, communication, essential infrastructure, mass care, and search and rescue.

The meetings were held in Salem, Oregon, and Camp Murray, Washington, and were a huge success. Representatives from multiple state and



federal agencies, private sector entities, and local cities and counties shed light on gaps in the baseline scenario and were able to provide necessary information to move forward with the planning process.

Workshop participants identified three major themes of significance for local communities:

1. After six minutes of intense shaking, residents and visitors to coastal communities may have as little as 15 minutes to evacuate to higher ground.
2. Main transportation corridors from coastal communities to the interior, as well as airport facilities could be significantly damaged which means that outside aid would be slow.
3. Many of the essential facilities (hospitals, police stations, fire stations) within coastal communities will not be functional due to earthquake or tsunami damage.

*Continued on next page*



# Introducing the Region X Help Desk!

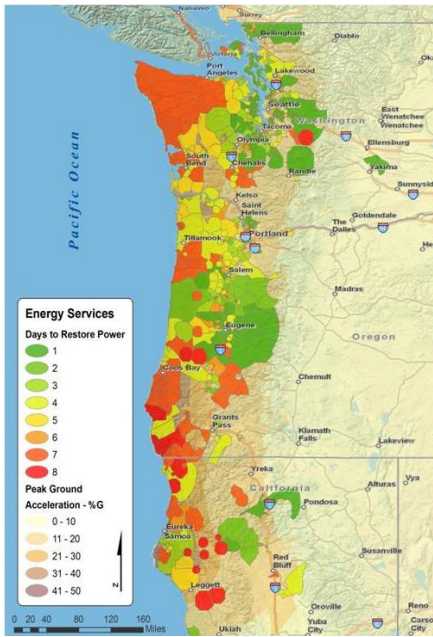
In an effort to better and more efficiently respond to questions and requests from communities and stakeholders in Region X, we are happy to announce the new the STARR Region X Help Desk. If you have questions on any topic, from project status updates to NFIP issues, let us help find the answer. Responses are guaranteed within three business days, but are often much faster than that. If there is a question or issue that requires more investigation, we will provide timely updates on the status of the request until an answer or resolution is found. The email address is [RegionXHelpDesk@starr-team.com](mailto:RegionXHelpDesk@starr-team.com).

## Cascadia (Continued)

As communities plan for their response to a large tsunami and earthquake event they should assume that obtaining access to outside aid, especially within the first 24 hours, will be difficult.

With sound collaboration, these workshops will help provide the detail needed to continue with the planning process.

For more information on CSZ Response Planning, contact Tamra Biasco at [tamra.biasco@fema.dhs.gov](mailto:tamra.biasco@fema.dhs.gov), or Jen Monroe, [jennifer.meyer@fema.dhs.gov](mailto:jennifer.meyer@fema.dhs.gov).



## Kodiak Pilot Multi-Hazard Risk Assessment

In August, FEMA Region X met with Alaska's State Hazard Mitigation Officer, Mark Roberts, and representatives of the US Coast Guard and Kodiak Island Borough to kick off the first phase of a

multi-hazard risk assessment project for earthquake, tsunami and flood hazards. The results of this analysis will be available to the Borough to enhance public awareness of risk and for incorporation into state hazard mitigation plans.

### Earthquake and Tsunami Best Planning Practices

- Use available hazard information to identify locations for offsite storage of essential items such as food, water, clothes and medical supplies.
- Identify suitable shelter locations and educate the public on evacuation protocols.
- Incorporate hazard information into land use plans that identify where to build residential structures and essential facilities and what to leave as open space.
- Consider alternative transportation lines that may be easier to repair. For example, forest roads and waterways may be accessible before paved roads.

Kodiak Island is highly vulnerable to both earthquake and tsunami hazards. In 1964, the island experienced a magnitude 9.2 earthquake which brought massive tsunami waves and destruction. Kodiak Island Borough has also encountered notable flood events in recent years. In October of 2009, Kodiak Island experienced severe storms that caused heavy rainfall and widespread flooding across the borough resulting in a presidential disaster declaration in December of 2009.

This risk assessment project will better prepare the borough for future response activities and enable informed decisions

regarding mitigation projects.

The August meeting focused on identifying and collecting information about valuable assets and infrastructure which will later be incorporated into the analysis using FEMA's loss estimation tool, HAZUS. Future meetings are planned to discuss and develop the seismic scenario.

The project has received enthusiastic support from all involved. Many thanks to all of those who have provided their time and expertise to make this project a success.

For more information, contact Tamra Biasco at [tamra.biasco@fema.dhs.gov](mailto:tamra.biasco@fema.dhs.gov), or Jen Monroe, [jennifer.meyer@fema.dhs.gov](mailto:jennifer.meyer@fema.dhs.gov).

## New FEMA Website for Levee Policy Updates

FEMA has made additional information about the proposed levee policy changes available on its website, [www.fema.gov/plan/prevent/fhm/lv\\_lamp](http://www.fema.gov/plan/prevent/fhm/lv_lamp). This site includes details on the history of the levee policy, the intent of the proposed changes, and some details on what could be impacted. This site will also be updated as new information becomes available.

If you have specific questions about how the proposed levee policy change will affect your community, contact the Region X Help Desk, the address is [RegionXHelpDesk@starr-team.com](mailto:RegionXHelpDesk@starr-team.com).



## New Features of the Community Rating System



A new edition of the *CRS Coordinator's Manual* will be released during the first half of 2012. The Manual is the fundamental guidance for the operation of the Community Rating System (CRS), which provides reductions in flood insurance policy premiums for policyholders in communities that undertake floodplain management activities that go beyond the minimum requirements of the National Flood Insurance Program. The proposed refinements are the culmination of work by the CRS Task Force, FEMA, and many CRS stakeholders, who collaborated on a multi-year evaluation of the CRS—the first complete evaluation since the program began operation in 1990.

### A Peek at the New Manual

The 2012 edition is being drafted now, and incorporates many improvements to CRS elements, activities, prerequisites, procedures, documentation, and credit points.

Many of the background reports and products of committee work reveal how certain elements and activities are likely to change. These are posted on the website for the CRS Manual at [www.crs2012.org](http://www.crs2012.org).

Another way to become familiar with the changes and what they may mean for your community is to sign up for one of a series of webinars that will be hosted by the CRS in November. At that time final decisions about the number of credit points being provided to a given element will have been made. Points information will be covered during the webinar presentations so communities should be able to obtain a good idea of how much change they can anticipate—and in what areas.

## Highlights of Changes to CRS

- The 50-page CRS Application will be replaced with a shorter “Quick Check,” which will appear in Section 212–Application Documents.
- More items will need to be submitted with each annual recertification, including all Elevation Certificates collected during the previous year. (Section 214, Recertification, and Activity 310–Elevation Certificates)
- A new web-based self-assessment can help communities identify the CRS activities that will help them the most. Instructions will appear as a new Section 240, Self-Assessment. A beta version is available for communities to try at [www.crs2012.org](http://www.crs2012.org). See the “Community Self-Assessment” menu.
- A new approach to public information programs is being taken, which will result in a reduction in credit for old, routine, annual outreach projects, but higher credit for projects developed by a local planning committee. (Activity 330–Outreach Projects)
- The first new activity in 20 years is being added to the CRS. Activity 370–Promotion of Flood Insurance will provide credit for communities that take an active role in encouraging people to obtain and maintain their flood insurance coverage.
- More credit will be provided for preserving open space. New credit points are going to be available to communities that encourage developers to set aside their floodplain areas as open space. (Activity 420–Open Space Preservation)
- There will be more points available for protecting the natural functions of floodplains and coastal areas. This will include a new credit for implementing regulations that encourage low-impact development. (Activity 420–Open Space Preservation and Activity 450–Stormwater Management)
- More emphasis will be placed on prohibiting fill in the floodplain, including not approving LOMR-Fs (Letters of Map Revision based on Fill). (Activity 430–Higher Regulatory Standards)
- New credit will be provided for exemplary administration of local regulations, including points for conducting field inspections and reinspections. (Activity 430–Higher Regulatory Standards)
- A new approach will be taken to the provision of credit to programs that prepare people and emergency management offices for the potential failure of a levee or dam. (Activity 620–Levee Safety and Activity 630–Dam Safety)

The webinars will be free and open to everyone. However, you will have to register a few days in advance. The webinar schedule, registration, and more information will be posted at [www.crs2012.org](http://www.crs2012.org).

For more information on the Community Rating System, contact Marlene Jacobs at (541) 704-5434 or [mjacobs@iso.com](mailto:mjacobs@iso.com).

**RiskMAP**  
Increasing Resilience Together



## FloodMap Mobile Smartphone App



Flood hazard risk professionals work hard to educate communities about the risks of flood hazards through maps, mailers, community meetings, websites, YouTube® videos, radio spots, and television commercials, yet we often find that communities are still not risk-aware. So we ask ourselves, “Is there another communication tool that would better reach our communities?” The answer may be found in smart phones. Our communities are an on-demand highly mobile society accustomed to receiving immediate answers through their smart phones as soon as they think of the questions. With smart phones, we can place just-in-time, personal, context-sensitive flood risk information into the hands of the community when—and where—risk decisions are made.

FloodMap Mobile is a smart phone app available for Apple, Android, and Windows based smart phones (and the iPad) that provides the user with easy-to-understand flood maps and flood reports identifying their risk. Using the phone’s global positioning system (GPS) capability, FloodMap Mobile shows a base map and the FEMA floodplains for the current location eliminating guesswork and map interpretation. The user is then given a flood risk report identifying community hazards, risk

**Map Location**

Lat:  Lon:

**Structure Value**

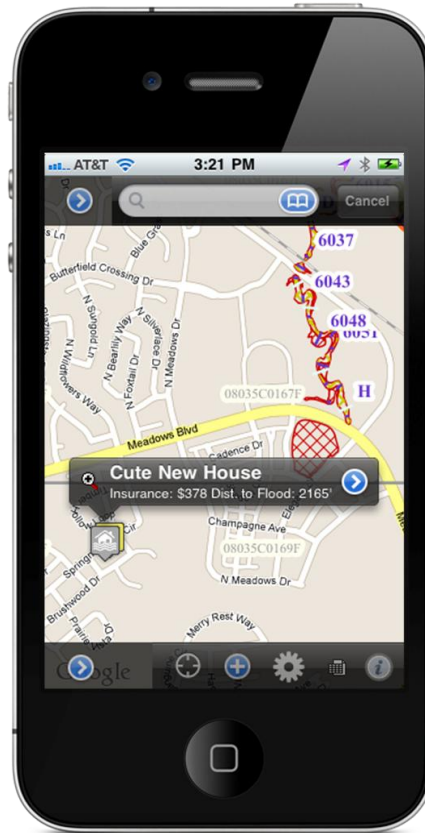
Structure (\$):

Contents (\$):

**First Floor Elevation**

Elevation (ft):

level, insurance costs, FEMA map numbers and a other useful information for that specific location. The user can also enter an address or just browse the map to find a location of interest and its flood risk exposure.



This tool places often complicated mapping information into the palm of the community’s hands on-demand and in context because they can see their physical relation to the floodplain. Even if the user is not in a mapped Special Flood Hazard Area (SFHA), FloodMap Mobile will tell the user how close they are to one. Not all of SFHAs are available in digital format, but as inventory grows, so does FloodMap Mobile.

The app also provides USGS ground elevation, stream gages, bridges, LOMA case viewing, FEMA mapping program dates for the community, FEMA map numbers, phone number of the closest insurance agents, special reports containing historic losses in the community, and other important location information.

Homeowners, real estate professionals, engineers, planners, administrators, scientists, and many other stakeholders can find a use for FloodMap Mobile. For more information, visit the website, [www.floodmapmobile.com](http://www.floodmapmobile.com).

## Funding for Riverine Studies Reduced

Last year FEMA Region X undertook 26 Discovery projects for watersheds and coastal areas with the anticipation of being able to provide updating engineering analyses and Risk MAP products in the near future.

Unfortunately, it appears as if few of those analyses will be started this year due to budget constraints and priorities on a national level. In completing the Discovery, we found there is a lot more unmet need for new or revised engineering and Risk MAP products within the Region than anticipated. In addition, there is a national emphasis on updating coastal studies due to their age (most were done in the 70’s and early 80’s) and the increase in population living in coastal areas. Also, a significant number of on-going studies were put on hold this year awaiting the development of a new levee policy. When the new levee policy is implemented, all of these on-hold studies will need to be evaluated and restarted under the new guidance. Region X set aside a significant portion of their mapping budget in order to complete the on-hold studies, rather than begin new studies this year and having these existing efforts—many, more than five years old—wait another year to get restarted. This was a difficult choice, given the need for revised riverine studies, but the decision to prioritize and finish what has already started was made in the interest of providing all of Region X with the best service possible.



## Featured Training

### HAZUS Earthquake Loss Estimations

Come learn what HAZUS can do for you! Kelly Stone and Jennifer Monroe, with FEMA Region X, will provide an overview of FEMA's loss estimation tool for earthquake losses. This online training session will provide participants with an understanding of the potential uses (Response Planning, Mitigation Planning, Land Use) and the limitations of HAZUS Earthquake. No previous experience is necessary. Participants will learn about results, data needs, and accuracy associated with the different types of analysis available in the HAZUS modules.

### Training Opportunities

#### Regulating Development in A Zones

October 21, 10:00am (Pacific)

Online\* – 1 CEC

#### Overview of HAZUS Earthquake Loss Estimations

October 28, 10:00am (Pacific)

Online\* – 1 CEC

#### Seismic Design and Performance of Nonstructural Elements

October 28

Grand Hyatt

Seattle, Washington

[www.eeri.org](http://www.eeri.org)

#### Risk Assessment and Mitigation Strategies for Severe Storms and Flooding

November 2, 1:00pm (Pacific)

Jamie Mooney, Washington EMD

[j.mooney@emd.wa.gov](mailto:j.mooney@emd.wa.gov)

#### Preparing Data for HAZUS

November 9, 10:00am (Pacific)

Online\* – 1 CEC

#### Letters of Map Change

November 16, 10:00am (Pacific)

Online\* – 1 CEC

\*To register for online courses, email [RXTraining@starr-team.com](mailto:RXTraining@starr-team.com).

### Letters of Map Change

Local Floodplain Administrators may or may not know they have certain responsibilities when it comes to keeping their Flood Insurance Rate Maps (FIRMs) up-to-date. Jamie Huff with FEMA Region X will provide an overview of the Letter of Map Change (LOMC) process to help participants gain an understanding of when they can be utilized. Participants will learn the various types of LOMCs, when certain map changes are required, the appropriate forms to use, the necessary data requirements and how the local communities are involved.

## Suggested Reading

### Levees and the Illusion of Flood Control

We recently came across this blog from Anne Jefferson, at the University of North Carolina—Charlotte. The author explains how levees are built to provide flood protection, but can also make flooding worse, and they aren't always the best solution. The guest blog was posted on the Scientific American website on May 20. It's worth a read:

[blogs.scientificamerican.com/guest-blog/2011/05/20/levees-and-the-illusion-of-flood-control-explainer](http://blogs.scientificamerican.com/guest-blog/2011/05/20/levees-and-the-illusion-of-flood-control-explainer)

**New!**

## Ask the Help Desk

### Where do I find guidance on submitting Form MT-2 for a Letter of Map Change (LOMC)?

MT-2 submittals can be a lot of effort and getting it right can seem like an impossible effort. The best source for MT-2 submittal requirements and information is the *FEMA MT-2 Instructions* document, which can be found with the MT-2 forms in the online FEMA library. The forms and instructions were updated earlier this year and now include steps for

## Upcoming Events

### Rocky Mountain HAZUS User Group (HUG) Call

October 12, 1:00pm (Mountain)

[www.usehazus.com](http://www.usehazus.com)

### From Vision to Reality:

#### Enhancing the Lower Boise River

October 18, 7:30am - 5:00pm

Washington Group Plaza

Boise, Idaho

[www.idahorivers.org](http://www.idahorivers.org)

### NOAA West Coast Tsunami Conference

October 21, 8:00am – 5:00pm

NOAA Western Regional Center

Seattle, Washington

[www.nws.noaa.gov/om/Tsunami/west/](http://www.nws.noaa.gov/om/Tsunami/west/)

### NWGIS User Group Conference

October 17-21

The Boise Centre

Boise, Idaho

[www.nwgis.org](http://www.nwgis.org)

### Washington HUG Call

November 3, 9:00 am (Pacific)

[www.usehazus.com](http://www.usehazus.com)

complying with the Endangered Species Act (ESA) requirements. Here's the link: [www.fema.gov/plan/prevent/fhm/dl\\_mt-2.shtm](http://www.fema.gov/plan/prevent/fhm/dl_mt-2.shtm).

If you have general LOMC and mapping questions, your first call should be to the FEMA Map Information eXchange (FMIX). The FMIX can help you with any FEMA map related questions or orders. Contact a FEMA Map Specialist at 877-FEMA-MAP, or by email, [FEMAMapSpecialist@riskmapcds.com](mailto:FEMAMapSpecialist@riskmapcds.com).

For questions about modeling and mapping relating to a specific project or case, email the Region X Help Desk, [RegionXHelpDesk@starr-team.com](mailto:RegionXHelpDesk@starr-team.com).

*Continued on next page*

**RiskMAP**  
Increasing Resilience Together

## STARR Online

Please visit us at [www.starr-team.com](http://www.starr-team.com) to read more about how STARR supports the Risk MAP vision.

### Ask the Help Desk (Continued)

#### Can FEMA help me find a BFE in Unnumbered A Zones?

Zone A identifies an approximately studied Special Flood Hazard Area (SFHA) for which no Base Flood Elevation (BFE) has been determined. The initial Floodway Hazard Boundary Maps (FHBMs) for communities identified as having flood hazards were prepared using available floodplain data contained in reports developed by a variety of federal, state, and local sources. For those communities that had no available flood hazard information, approximate hydrologic and hydraulic analyses methods or historical flood data were used to determine the extent of the SFHA.

When managing and regulating floodplain development in A Zones, community officials are often challenged to find the best method to ensure that all development is “reasonably safe from flooding.” as required in 44 CFR § 60.3.

If the proposed development is greater than 50 lots or five acres, the applicant is required to develop base flood elevations and protect the proposed development to that elevation, in accordance with the local ordinance. But when smaller development projects are proposed in A Zones, the community should work with the applicant to find an appropriate level of protection.

The first step for the local official is to check with other state and federal agencies to see if BFE’s have already been determined for the area. Check with your state’s Departments of Transportation, Water Resources, Land Conservation and Development, Ecology, Geological Survey, or Natural Resources. At the federal level, look to the US Army Corps of Engineers, Natural Resources Conservation Service, and the US Geological Survey.

You can also check with local or regional agencies to see if any work has been done in the area to determine BFE’s that can be used at the site of the proposed development. BFE’s developed by local certified engineers are acceptable, with supporting engineering data. For example, the local public works department or the local transportation department may have developed flood data in designing sewer and storm drainage systems and local roads. Also, if there are culverts or bridges which cross the same stream within 1,000 feet of the area of interest, there may be hydrologic and hydraulic information pertaining to the 1-percent-annual-chance flood discharge and elevation which may be pertinent to the site.

If, after consulting all possible sources, there is no base flood elevation data available, a Zone A MT-1 application can be submitted for help in determining the BFE for a site. This service is only available for development less than 50

### FEMA MT-1 Process

- The structure or property is overlaid with the effective FIRM map. If the structure or property does not plot inside the SFHA it is deemed “Out-As-Shown” and no BFE is needed.
- FEMA then checks for previously processed nearby cases to see if another BFE can be applied to the structure or property in question. If not, an additional data letter is sent to the homeowner requesting they check with Federal and State agencies to determine if a BFE already exists.  
NOTE: The applicant can expedite the process when submitting the MT-1 form, by including records of their research, or a letter from their state, that confirms that no BFE exists.
- FEMA will review all supporting data and concur or modify the BFE.
- If no BFE exists and the property is less than 50 lots or 5 acres, FEMA will develop one. The processes used to develop a BFE are defined in the Zone A Manual, FEMA 265.

lots or five acres, and only after the applicant has made a reasonable effort to locate existing data.

For additional training on regulating in Unnumbered A Zones, attend the online training on October 21<sup>st</sup>.

*If you have a question to ask the experts at the Region X Help Desk, email [RegionXHelpDesk@starr-team.com](mailto:RegionXHelpDesk@starr-team.com). You might find the answer in the next issue!*

### Do you have questions, comments, or suggestions about the Region X Newsletter?

If you have anything to share with us about the contents of this newsletter publication, or have suggestions for future articles, please email the FEMA Region X Service Center. The address is [RXNewsletter@starr-team.com](mailto:RXNewsletter@starr-team.com).

**RiskMAP**  
Increasing Resilience Together