



Addressing Social Equity through Natural Hazards Mitigation Planning

FEMA Region 10 Coffee Break Series

October 27, 2017

Himanshu Grover (AICP), Co-Director of the Institute for Hazard Mitigation and Planning, University of Washington
Jonna Papaefthimiou (AICP), Planning and Community Resilience Manager, Portland Bureau of Emergency Management
Brett Holt, FEMA Regional Mitigation Planning Program Manager
Amanda Siok, FEMA Mitigation Planner





Housekeeping

- Attendees may be muted to reduce background noise
- Please do NOT put your phone on “hold”, it plays the hold music for everyone else on this call.
 - If you have to step away, mute your phone or hang up and rejoin the call later.
- **To increase efficiency and so that we can end on time,**
 - Use “Q&A” feature to ask a question
 - Q & A will be open for 10 minutes following the training

CFM Continuing Education

- For full credit (1 CEC) you must be attentive and participate in the polls and activities
- Credit eligibility is based on attendance and participation
- STARR reports to ASFPM once per month for the previous month
- If eligible, you will receive a Certificate of Attendance via email that you can forward to other agencies



Addressing Social Equity through Natural Hazards Mitigation Planning

FEMA Region 10 Coffee Break Series

October 27, 2017

Himanshu Grover (AICP), Co-Director of the Institute for Hazard Mitigation and Planning, University of Washington
Jonna Papaefthimiou (AICP), Planning and Community Resilience Manager, Portland Bureau of Emergency Management
Brett Holt, FEMA Regional Mitigation Planning Program Manager
Amanda Siok, FEMA Mitigation Planner



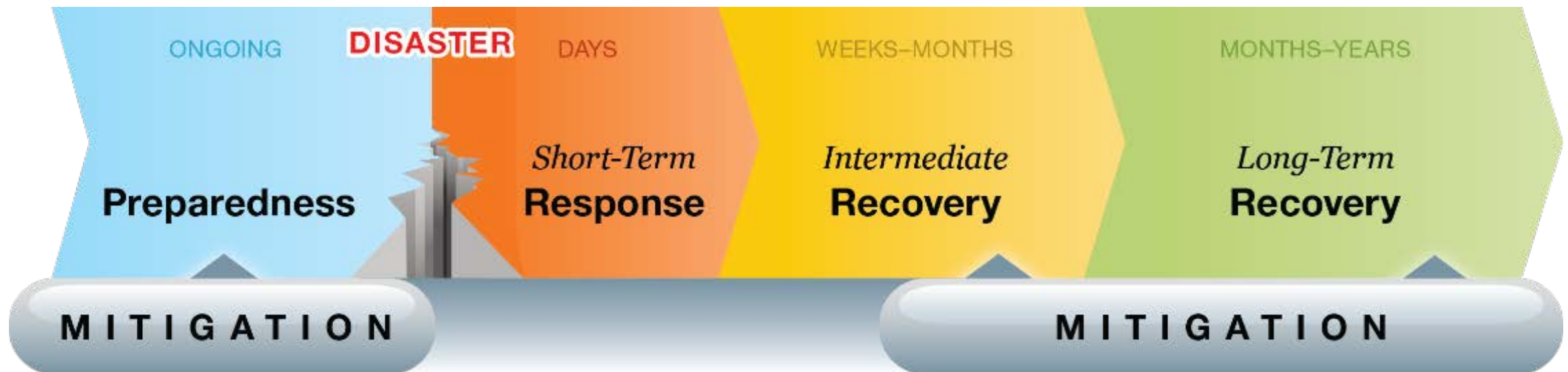
Review Learning Objectives

At the end of this webinar, participants will understand:

1. Opportunities to address social equity through the mitigation planning process
2. Categories of at-risk people
3. Challenges to ensuring an equitable planning process
4. Tools that could be used to address social equity

Mitigation

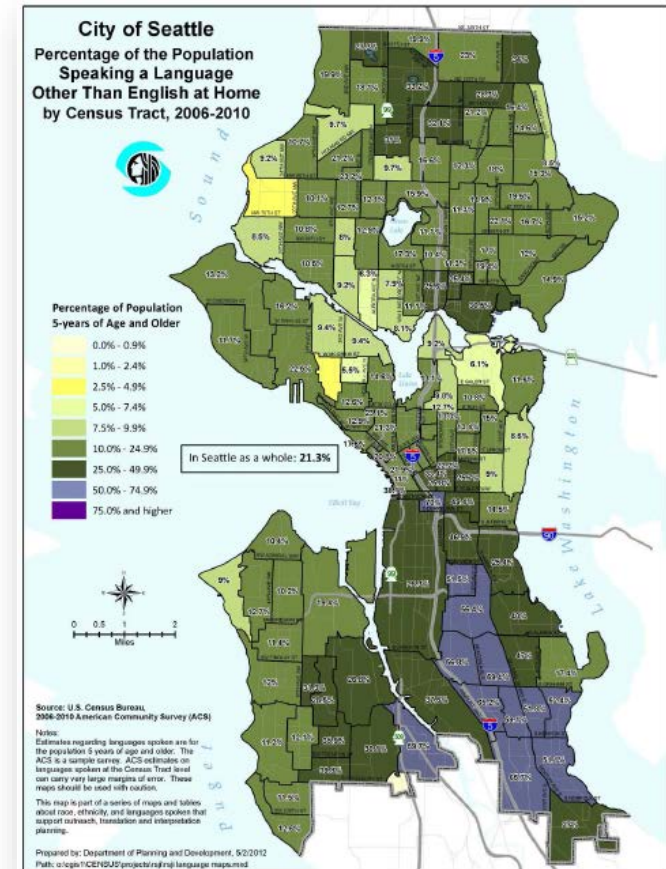
Mitigation is the reduction or elimination of long-term risk to human life and property from hazards



Emergency Management Activities

Why do we address social equity?

- The most vulnerable are likely to be the hardest hit during a disaster
- Provides a fair and balanced approach to helping all community members as it relates to pre-and post-disaster planning
- Having a clear understanding of how and where at-risk groups might be most affected during a disaster will help you allocate resources efficiently before, during, and after an emergency
- Policy is being developed and projects are being implemented that could have direct impact on at-risk populations as it relates to disasters.



Is there a FEMA planning requirement?

- No, but FEMA encourages an inclusive planning process that addresses the needs of all community members
- Opportunity
 - Community Profiling
 - Risk Assessment
 - Strategy Development and Prioritization
 - Community Engagement
- It looks different for each community.





2017 FEMA Region 10 Natural Hazards Mitigation Planning Coffee Break Webinar Series

*Strengthening tribal, state, and local natural hazards mitigation planning
program capabilities*

“Addressing Social Equity through Natural Hazards Mitigation Planning”

Friday, October 27 | 10am-11am (PST)



Institute for
Hazard Mitigation
Planning and Research
Resilient and Safe Communities

Himanshu Grover (AICP)

Assistant Professor, Department of Urban Design and Urban Planning
Co-Director, Institute for Hazard Mitigation and Research

KEY TERMS

> Hazard or Trigger Event

- A phenomenon with potential to cause harm.

> Disaster Risk

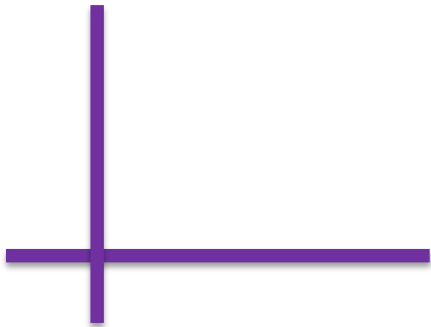
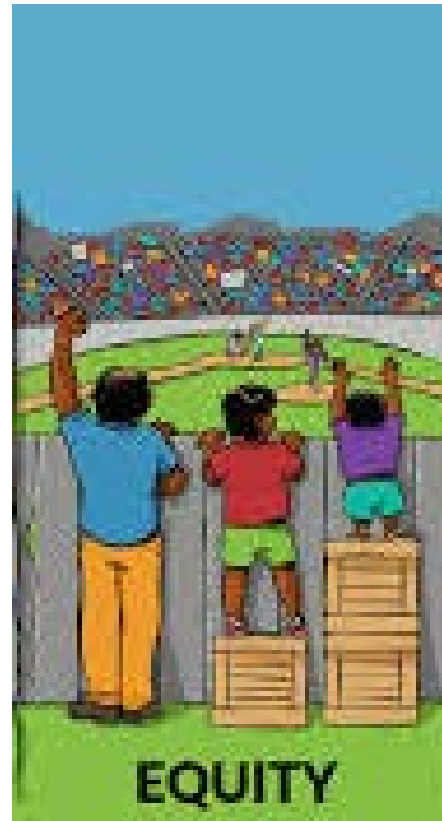
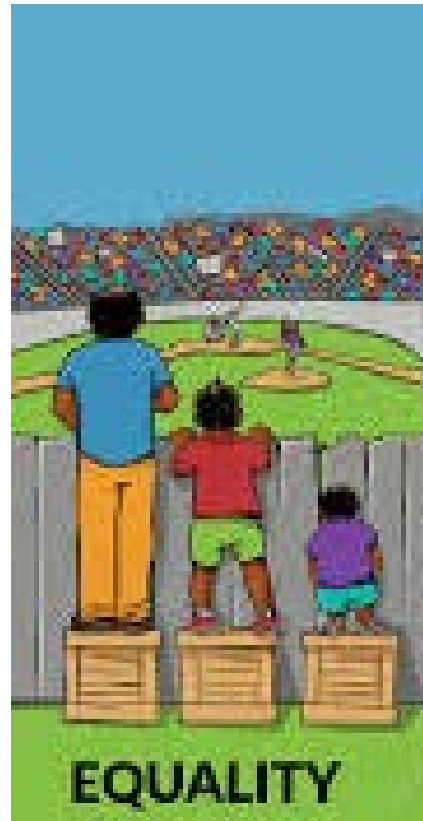
- Probability that a household, community, business, province etc... will be unable to resist, manage or recover from the losses sustained from a hazard without external assistance

> Risk Reduction

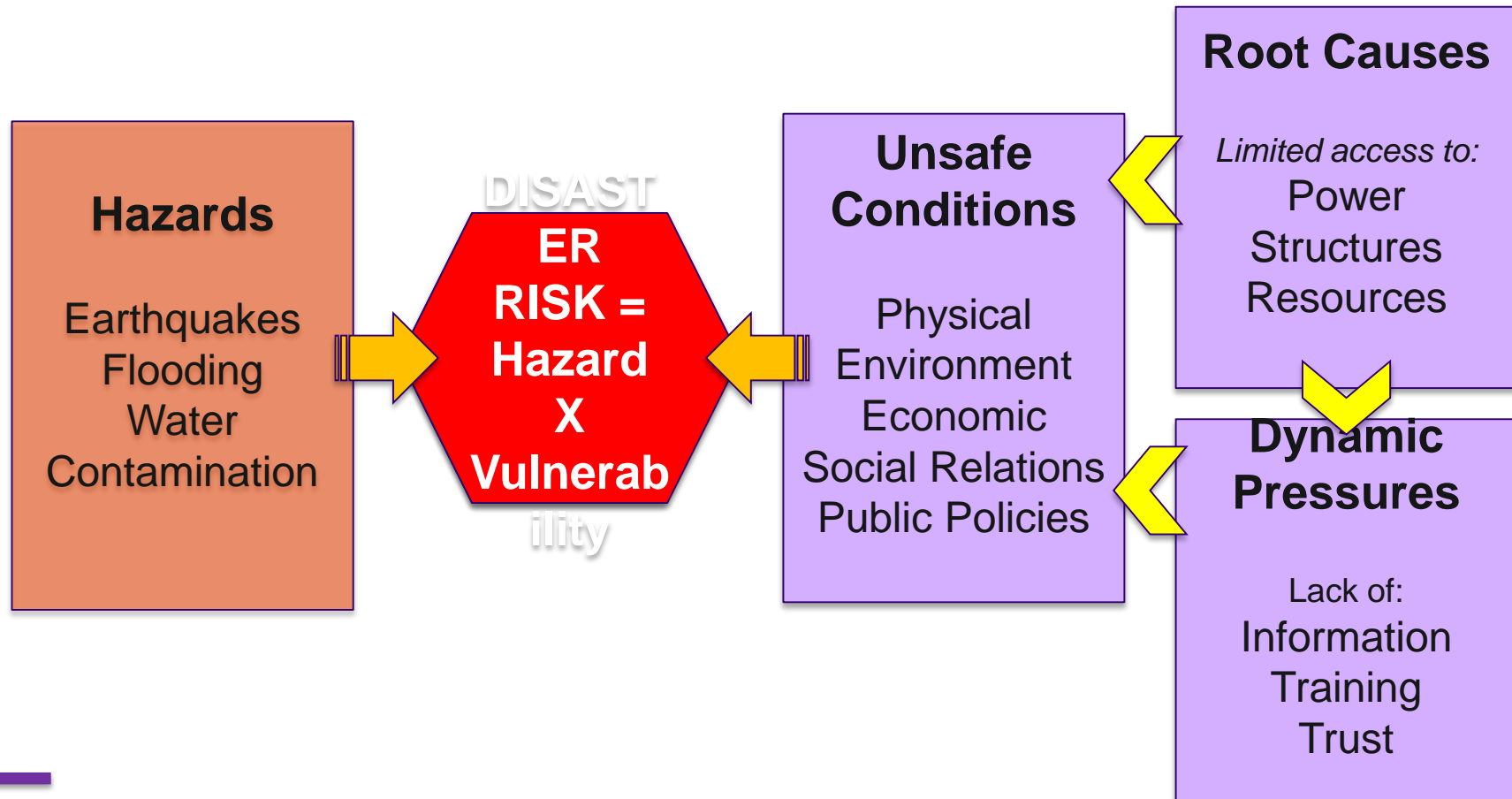
- reflects an objective to achieve reductions in loss of life, of property of natural resources... by reducing hazards/vulnerabilities



WHAT IS EQUITY?



ANATOMY OF A DISASTER

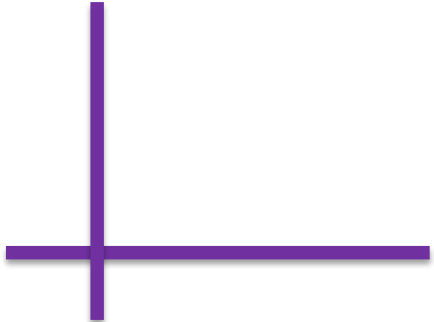


W

ANATOMY OF A DISASTER

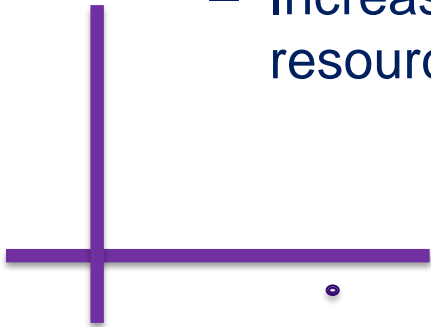
Hazard Events to Disasters

- > Consequences of inherent vulnerabilities in a community!!
 - If you are immune, you will not get sick;
 - BUT, if your immune system is weak you are prone to getting sick
- > Therefore, A community can avoid disasters by becoming less vulnerable
 - And EQUITY is the critical component



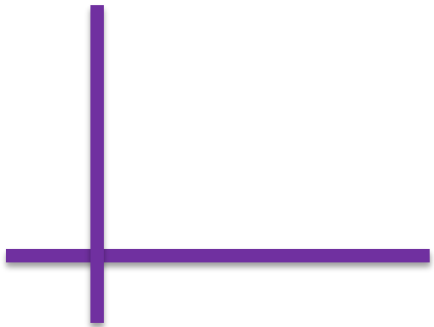
ANATOMY OF A DISASTER

- > Disasters are often treated as discrete events, but they are often outcomes of systemic issues
 - The scientific consensus is that natural disasters, are not simply “natural” events.... they are an outcome of an interaction between biophysical systems, human systems and their built environment.
- > Human action and inaction is the driver:
 - We continue to develop and expand into high hazard areas
 - Increasing hazard exposure of most vulnerable groups – people who have the least resources to cope!!

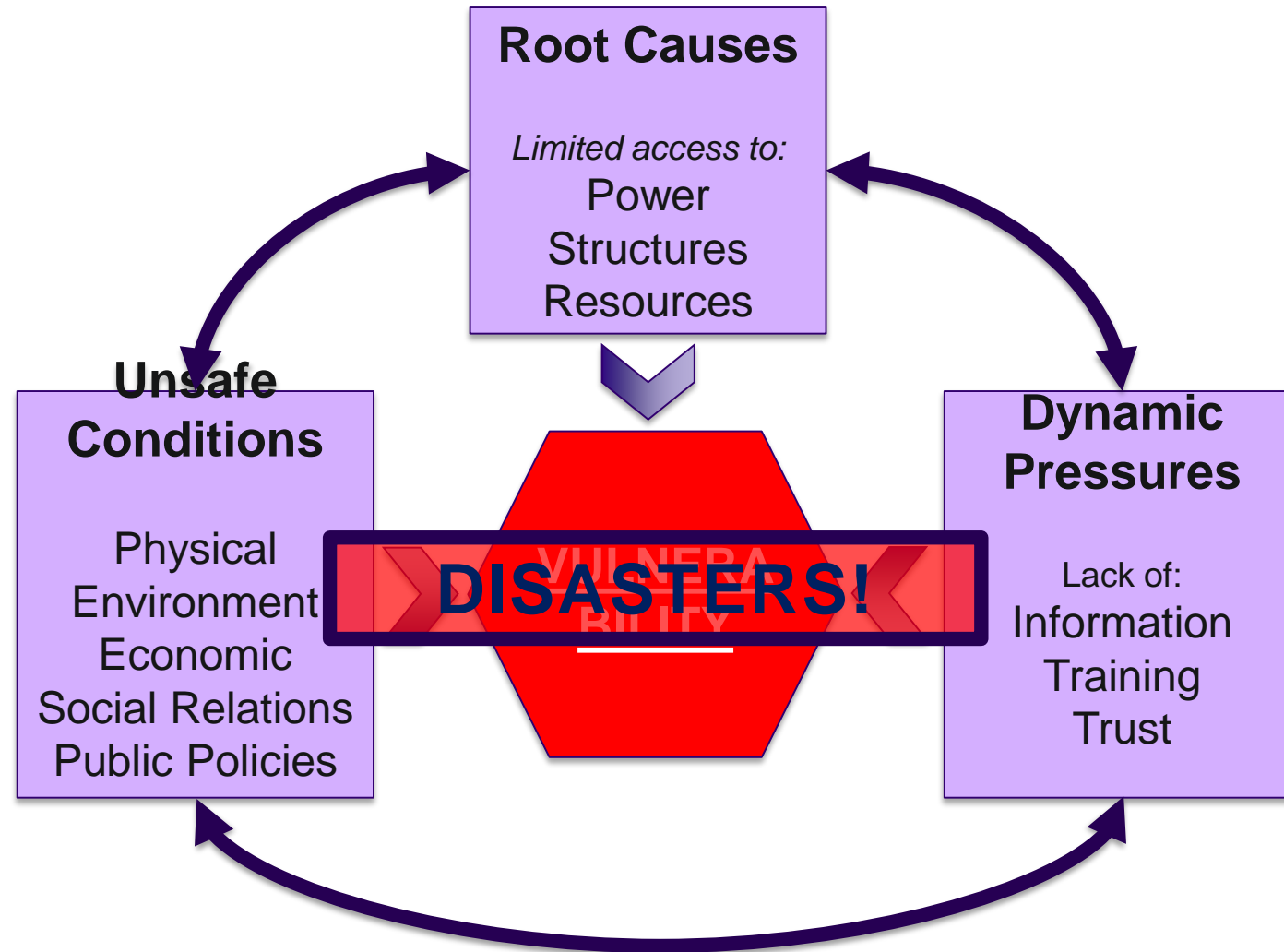


HAZARD MITIGATION

- > Defined by FEMA as any sustained action taken to reduce long-term risk to human life and property from natural hazards.
 - Premise- Current dollars invested in mitigation will reduce future dollar for emergency recovery, repair, reconstruction
- > Thus, from societal perspective attention to Equity is critical for effective hazard mitigation



COMMUNITY VULNERABILITY

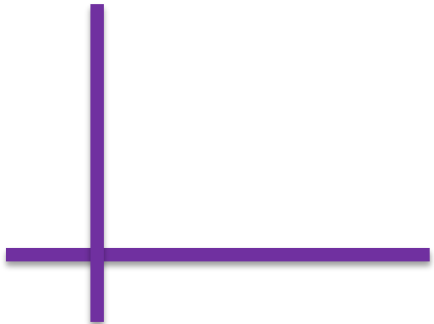


WHY CONSIDER EQUITY IN HAZARD MITIGATION PLANNING

Differential Impact of Hazard Events

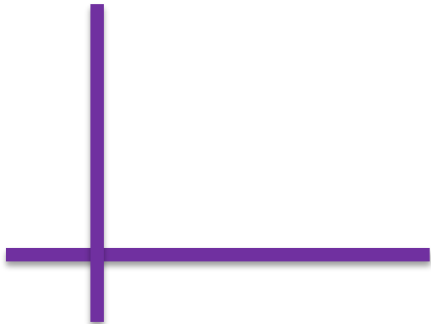
> Example Katrina

- Non-whites were more disproportionately affected by the storm
- Related to issues of the intersection of race, income and class.
 - > Research shows that minorities, are disproportionately located in poor quality housing segregated into low-valued neighborhoods, which would make their communities more vulnerable to disproportionate impacts.



WHY CONSIDER EQUITY IN HAZARD MITIGATION PLANNING

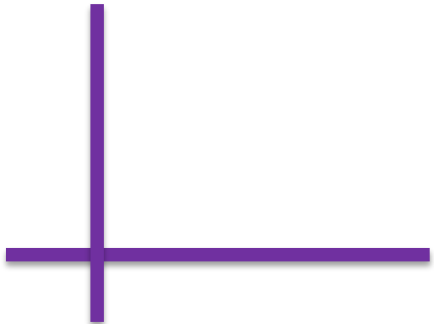
- > One-fifth of those displaced by the storm were likely to have been poor, and 30 percent had incomes that were below 1 ½ times the poverty level.
- > African Americans accounted for 44 percent of the storm victims.



WHY CONSIDER EQUITY IN HAZARD MITIGATION PLANNING

Because it can Reduce Vulnerability

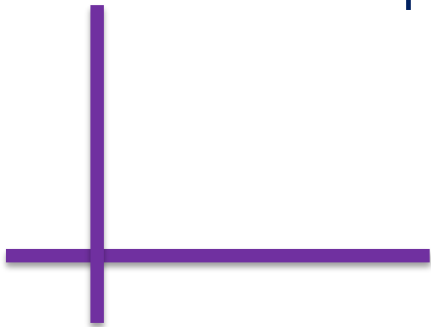
- > We can minimize the impact of disasters
- > Provide a better quality of life to all groups and members of the community
- > Build trust and networks that can be relied upon for other developmental activity
- > To enhance Social Equity



EQUITY CONCERNS IN HAZARD MITIGATION PLANNING

> Critical to Recognize

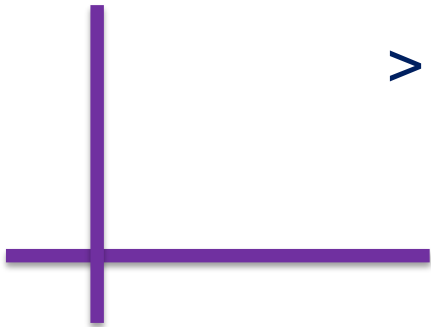
- Each social group's degree of vulnerability to the same hazard event is different
- The severity of negative impact of hazard events is as directly related to social inequalities and deprivations as to the natural hazard itself
- Each groups ability to participate in the process varies greatly
- Access to information and other resources is directly proportional to the efficacy of the participation
- Trust plays an important role





EQUITY CONCERNS IN HMP PLANNING PROCESS CHALLENGES

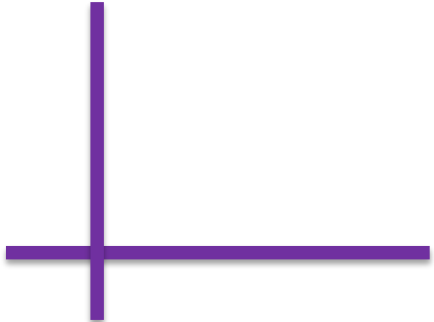
- > Participation
 - Who? When? Where?
- > Reaching a Common Framing
 - different stakeholders have conflicting views of the issue
- > Scope
 - What is under discussion? What can be influenced?
- > Recognize hidden/ underlying agendas
 - These agendas may derail the process
- > Accountability
 - Continued feedback and engagement beyond the participation *calendar*



EQUITY CONCERNS IN HMP RISK ANALYSIS

THINK ABOUT

- > Comprehensive vulnerability analysis
 - Who is vulnerable?
 - Why?
 - Where?
- > Vulnerabilities may not be spatially explicit!



COMMUNITY VULNERABILITY

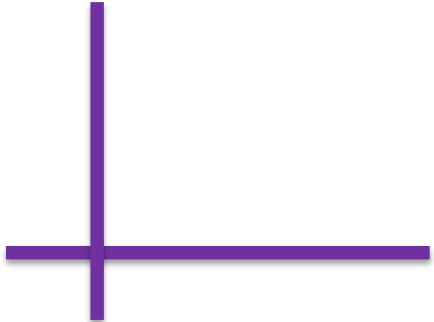
DISADVANTAGED/ VULNERABLE GROUPS

- > Isolated / Marginalized Groups: socially, culturally, and or physical/geographical
- > Illegal immigrants
- > Low education / illiterate
- > Low income
- > Non-English speaking
- > Homeless
- > Families with small children, especially single parents
- > Elderly
- > Those with physical and or mental disabilities

EQUITY CONCERNS IN HMP POLICY FORMULATION

Equity Lens

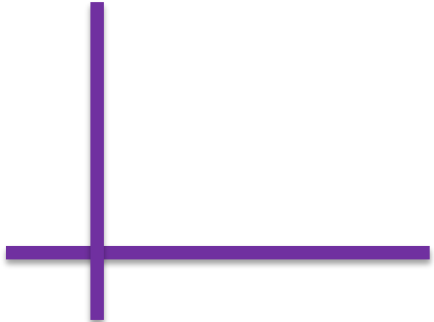
- > Spatial distribution of mitigation activities
- > Impact of each action of specific groups
- > Enhanced support for vulnerable groups
- > Non-spatial risk reduction activities – long term trust building, communication channels, engagement partnerships



EQUITY CONCERNS IN HMP POLICY FORMULATION

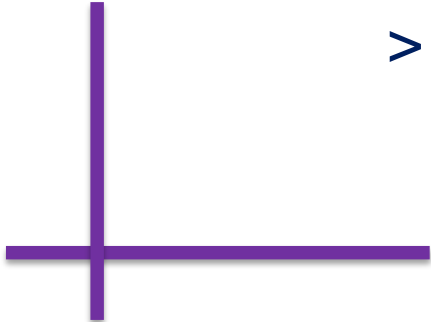
Equity Lens

- > Do the proposed actions reduce or exacerbate current and historical disparities?
- > Who all benefit?
- > What are the indirect and unintended consequences on all groups?
- > How can the proposed actions contribute towards long-term capacity building, and trust building?



Importance Of Beliefs And Customs

- > Consider the beliefs held by people who have been largely marginalized by society.
- > Consider how culture influences help-seeking behaviors, healing, trauma, and loss.
- > Consider how people from family-centered cultures will respond to a disaster.
- > How will language barriers be addressed?



What We Know Works?

- > Identification of vulnerable populations
- > Increased tracking of vulnerable populations
- > Established “modes of communication”
- > Having “trusted” people in place
- > Effective communication among agencies & community groups
- > Mock exercises and drills
- > Promote an atmosphere of “trust” and “openness”

Thank You....

Himanshu Grover (Phd., AICP)
Assistant Professor, Department of Urban Design and Planning
Co-Director, Institute for Hazard Mitigation and Planning
T: 206.685.6855 E: groverh@uw.edu
<http://urbdp.be.washington.edu/>
College of Built Environments, University of Washington
Box 355740 410 J Gould Hall, Seattle. WA 98195-5740



Polls

1. Which disadvantaged/vulnerable populations do you feel are adequately addressed through your mitigation planning process?
2. Which disadvantaged/vulnerable populations will you improve how they are adequately addressed in your next mitigation planning process?
 - a) Isolated / Marginalized Groups: socially, culturally, and or physical/geographical
 - b) Illegal immigrants
 - c) Low education / illiterate
 - d) Low income
 - e) Non-English speaking
 - f) Homeless
 - g) Families with small children, especially single parents
 - h) Elderly
 - i) Those with physical and or mental disabilities

Equity Lens in Natural Hazard Mitigation Planning

Portland, Oregon

Jonna Papaefthimiou, AICP
Planning and Community Resilience Manager
Portland Bureau of Emergency Management

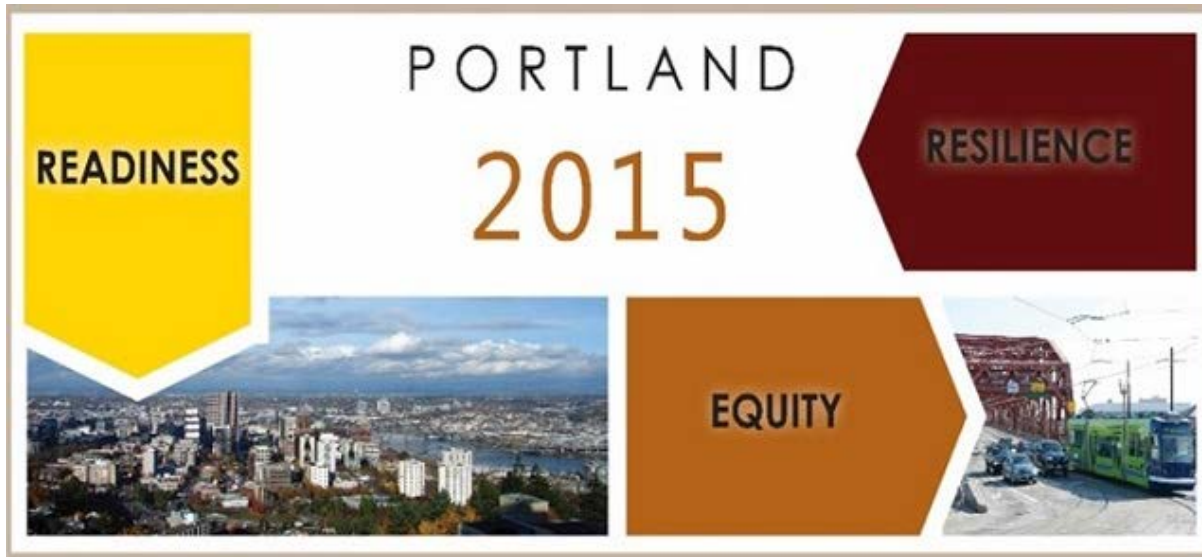


Presentation overview

I: Actions undertaken in Portland Mitigation Action Plan (MAP) update

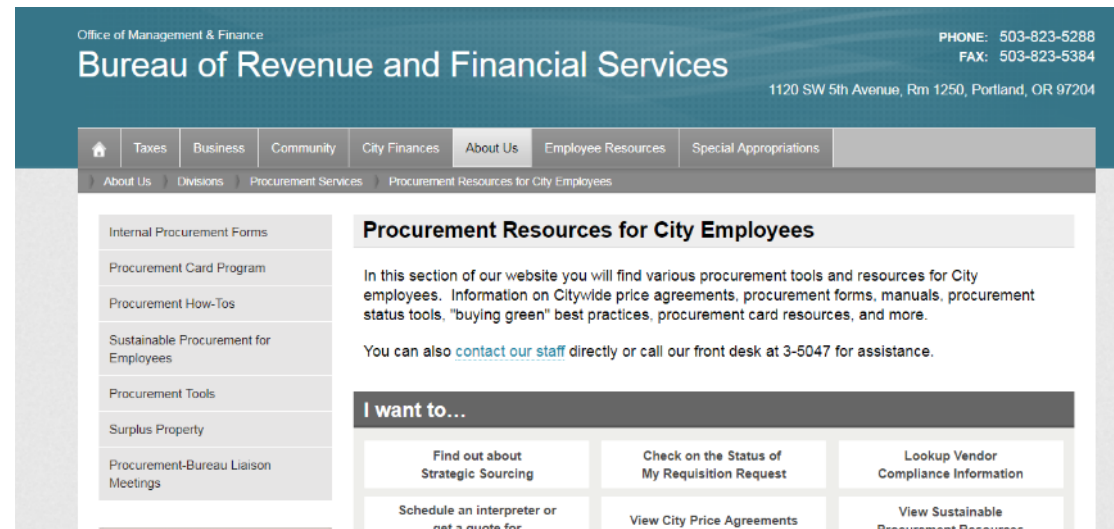
II: Actions for future equity efforts

I. Actions undertaken in Portland Mitigation Action Plan (MAP) update



Project scoping + contracting

- NHMP grant application highlighted equity focus
- Contracted scope of work included equity deliverables
- Equity in plan purpose and committee charge statement
- Make commitments; be accountable



Diverse + empowered steering committee

- Invite stakeholders directly to join
- Include underserved groups: communities of color, renters, immigrants
- Empower committee to modify process / promote projects
- Engage skillful facilitators
- Value different kinds of expertise: engineers, longtime residents



Training for committee + community

- Introduction to equity training
- Equity in natural hazard mitigation planning training
- FEMA / NHMP purpose and context training
- Group discussion
- Staff training



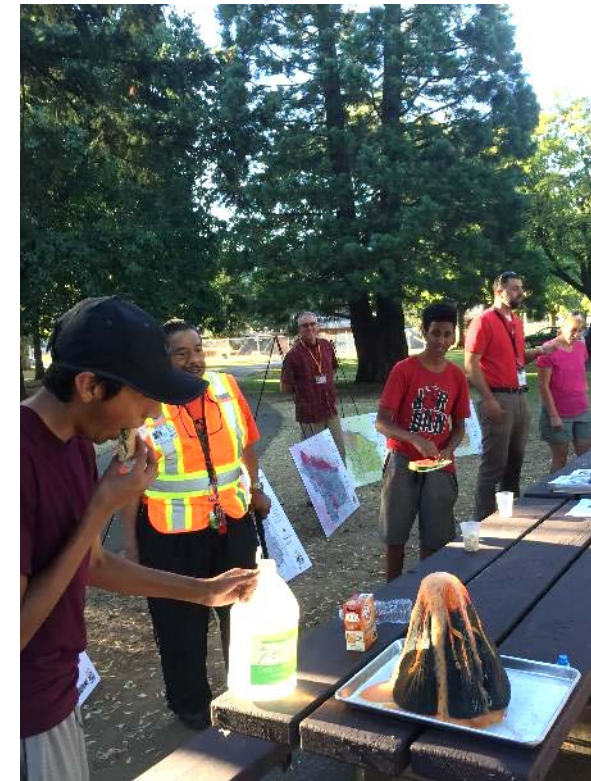
Data-driven

Population Residing in High Liquefaction Potential Areas

Reporting Area	Under 15 Years	Over 65 Years	People of Color	Renter occupied Housing	Families Below Poverty Level	Limited English Speaking Households
Airport	5.4%	5.1%	31.8%	68.8%	19.8%	20.6%
Central City	2.6%	7.8%	12.9%	82.4%	13.8%	0.5%
Central Northeast	5.6%	5.2%	32.0%	66.5%	18.9%	19.7%
East Portland	17.6%	14.8%	26.3%	24.9%	10.7%	5.2%
North Portland	14.4%	17.7%	29.2%	22.1%	8.0%	3.8%
Northeast	-	-	-	-	-	-
Southeast	13.6%	12.0%	12.7%	58.4%	7.3%	2.2%
Southwest	12.1%	16.6%	13.8%	54.1%	4.9%	1.4%
West/Northwest	13.6%	13.3%	11.6%	22.3%	1.4%	0.0%
Total	13.1%	13.8%	17.5%	50.4%	7.6%	2.5%

Direct community outreach

- Articulate clear outreach goals
- Solicit input when plan is open to influence
- Connect to community need or organizational mission
- Make disaster resilience a partnership:
Here's what the city is doing, and here's what you can do.



Decision tools

- Approach equity systematically
- Identify who benefits and how
- Consider unintended consequences of projects
- Consider project modifications

The Mitigation Action Plan

Action Plan and Implementation

Table 19-2. Equity Screening Review Tool

	Procedural	Distributive	Structural
Programs/ Services	How was the target audience included in the design of the program? What actions will be taken to ensure that services and programs are physically and programmatically accessible and inclusive? What are the criteria for participation or receipt of benefits?	Is the program or service designed to meet the needs of underserved and underrepresented communities? If not what would need to be changed to ensure their equitable participation? How will program dollars be allocated to ensure inclusive and accessible service delivery? Does the cost structure of the program result in disparate use?/Does the fee structure of the service result in increased burdens for low-income communities?	Does this program/service create unintended consequences for communities that are underserved and underrepresented? How will they be mitigated? Is there an opportunity to extend additional benefits through this program/service that can help support the healing of past harms to communities? Does the program empower and build capacity of a community
Capital Investments	What are the criteria for prioritizing projects and investments? Does the data and information used consider the demographic, geographic and real-world experience of residents	Will the investment provide improved safety, health, access or opportunity for the communities who need it most? How will the underserved people who currently live and work in the area	What measures will be taken to mitigate the potential impacts involuntary displacement in the project? How will business or employment opportunity created through the project

II. Future efforts



Develop plans in-house

- Hazard planning consults know the FEMA rules but - equity is not their expertise
- National firms lack local knowledge or connections
- Plans are long and unreadable



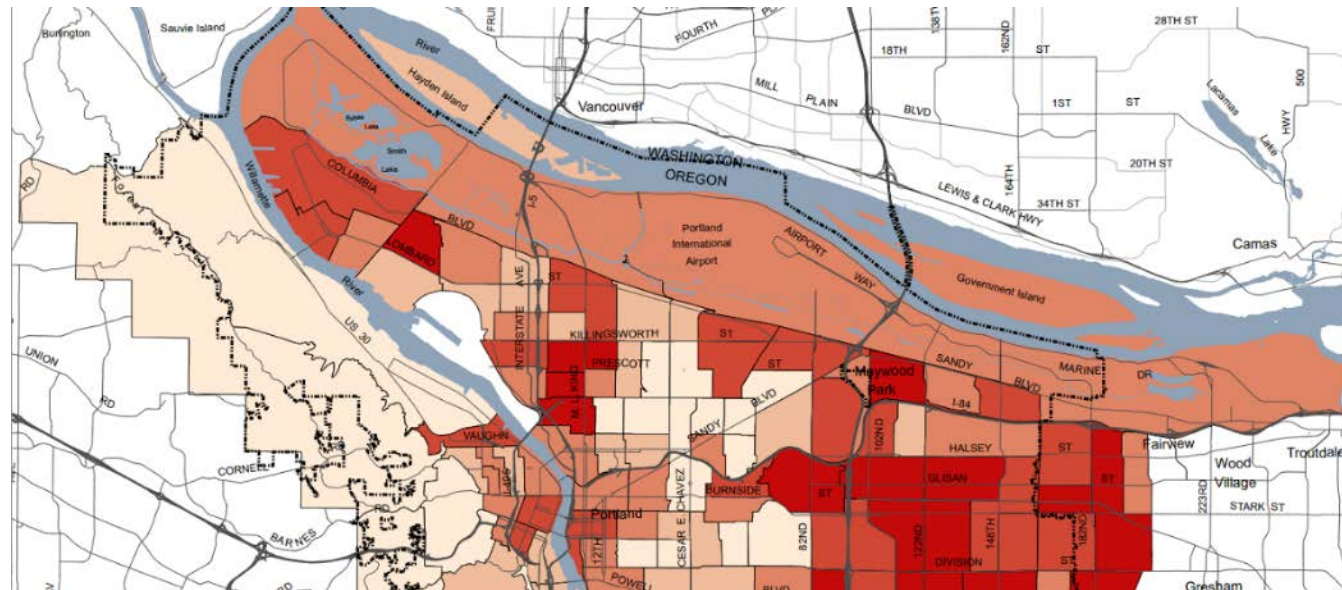
Standing committee to advise on plans, budget and strategy

- Cultivate community representatives who know the agency's work and the communities we serve
- Create authentic opportunities to influence the organization
- Build relationships over time
- Create networking, professional development opportunity



Rigorous application of data + tools

- More time needed to develop and present data in ways that can influence the project
- Equity tool should yield an evaluation or score



Diversify - funding and strategies

- Articulate strategy of structural and social interventions
- Seek funding outside FEMA
- Own the plan



Thank you.

Jonna Papaefthimiou

Planning and Community Resilience Manager

jonnap@portlandoregon.gov

503-823-3809

Washington County, Oregon

Social/Demographic Capacity

Social/demographic capacity is a significant indicator of community hazard resilience. The characteristics and qualities of the community population such as language, race and ethnicity, age, income, educational attainment, and health are significant factors that can influence the community's ability to cope, adapt to and recover from natural disasters. Population vulnerabilities can be reduced or eliminated with proper outreach and community mitigation planning.

Washington County Natural Hazard Mitigation Plan

Washington County and the Cities of:
Tigard and Hillsboro



February 2017

Volume I: Basic Plan

Prepared for:
Washington County Emergency Management

Prepared by:
University of Oregon
Community Service Center
Oregon Partnership for Disaster Resilience



UNIVERSITY OF OREGON

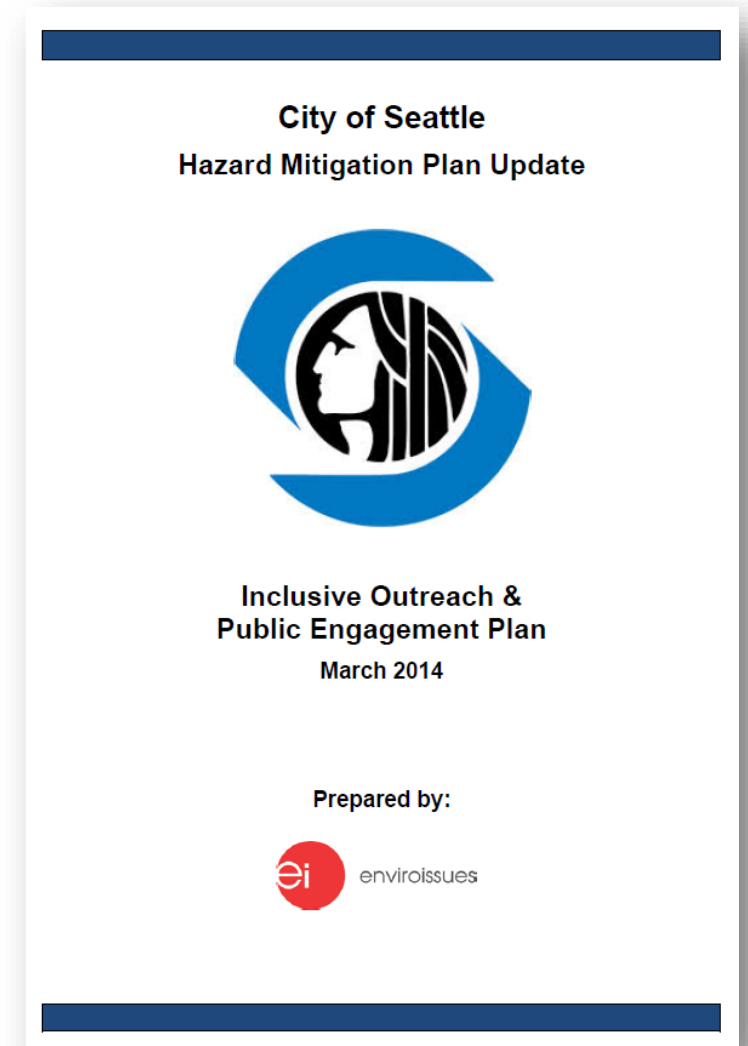


City of Seattle, Washington

Project communications will follow the City's Inclusive Outreach and Public Engagement Guide in striving for multiculturalism, with equal access and respect for all groups and creating conditions for understanding.

Strategy (1 of 6)

Partner with diverse organizations and agencies: OEM will use current Census data in order to identify diverse communities within the city limits and seek to create partnerships with existing organizations that can invite and encourage their constituents to participate.



Next Steps

1. **Discuss opportunities for an equitable planning process with your mitigation planning committee**
2. **Reach out to...**
 - State or local health department
 - Community organizations, or businesses that are connected to at-risk groups
3. **Identify data sources**
4. **Create maps to visualize locations**



Plan Development Resources

- **Social Vulnerability Index for the United States (SoVI)**

<http://webra.cas.sc.edu/hvri/products/sovi.aspx>

- **Community Analyst** (Including populations at risk (age, language spoken, economic status, etc.)

<http://www.esri.com/software/arcgis/community-analyst>

- **Living Atlas of the world** (including demographic data and temporal data on demographic change)

<https://livingatlas.arcgis.com/en/#s=0>

- **Arc GIS online search demographic data**

<http://www.arcgis.com/home/search.html?q=demographic&t=content>

- **Portland Mitigation Action Plan**

<https://www.portlandoregon.gov/pbem/53892>

- **FEMA Mitigation Planning**

<http://www.fema.gov/hazard-mitigation-planning>

- **Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups**

<https://www.cdc.gov/nceh/hsb/disaster/atrisk/guidance.pdf>

Review Learning Objectives

At the end of this webinar, participants will understand:

1. Opportunities to address social equity through the mitigation planning process
2. Categories of at-risk people
3. Challenges to ensuring an equitable planning process
4. Tools that could be used to address social equity

Region 10 Mitigation Planning Training

Camp Murray, Washington

November 1-2

Hosted by Washington Emergency
Management Division

Register information on the Coffee Break website



Next Month



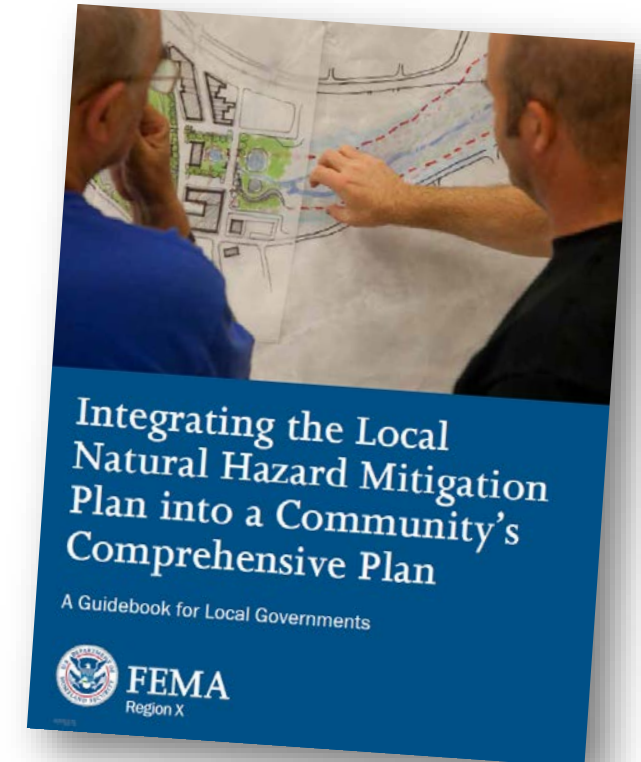
Integrating Natural Hazard Mitigation Plans into Local Comprehensive Plans

November 17, 2017

10am-11am PST

Comprehensive plans establish policies that are intended to guide a community's day-to-day land use decisions and capital facilities expenditures. These policies have a major impact on whether people and property are exposed to natural hazards as well as the extent to which they are vulnerable to injury and damage.

Join the FEMA Region 10 Mitigation Planning Team and guest speakers as we review opportunities for integration, review examples, and identify resources to integrate plans.



2017 FEMA REGION 10 COFFEE BREAK CALEDAR



- January: Introduction to Mitigation Planning
- February: Building the Mitigation Planning Team
- March: Effective Public Engagement in Mitigation Planning
- April: Developing FEMA Mitigation Planning Grants
- May: Performing Natural Hazard Risk Assessments
- June: Integrating Natural Hazard Mitigation Plans and Community Wildfire Protection Plans
- July: Developing Natural Hazard Mitigation Strategies
- August: Climate Adaptation and Mitigation Planning
- September: Tribal Mitigation Planning
- October: Addressing Social Equity through Mitigation Planning
- November: Integrating Natural Hazard Mitigation Plans into Local Comprehensive Plans
- December: Mitigation and Recovery Planning (Change)



Contact

FEMA REGION 10 MITIGATION PLANNING TEAM

- Brett Holt, Mitigation Planning Program Manager, brett.holt@fema.dhs.gov
- Amanda Siok, Mitigation Planner, amanda.siok@fema.dhs.gov

ALASKA

- Vacant

IDAHO

- Lorrie Pahl, State Mitigation Planner, lpahl@imd.idaho.gov

OREGON

- Joseph Murray, State Planner, joseph.murray@mil.state.or.us

WASHINGTON

- Derrick Hiebert, State Mitigation Strategist, derrick.hiebert@mil.wa.gov

