

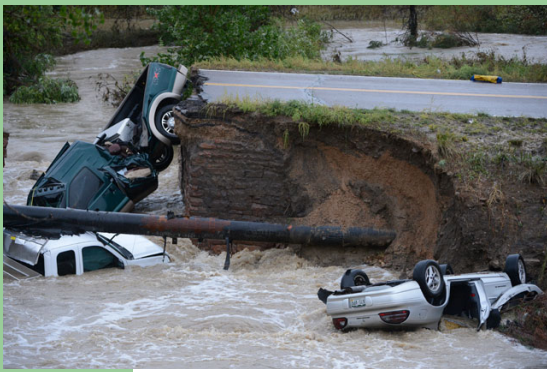
CWPPs, HMPs, NFIP, FIRM: MAKING SENSE OF THE HAZARD PLANNING ALPHABET SOUP

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C L A R I O N



**ROCKY MOUNTAIN LAND
USE INSTITUTE
MARCH 2015**

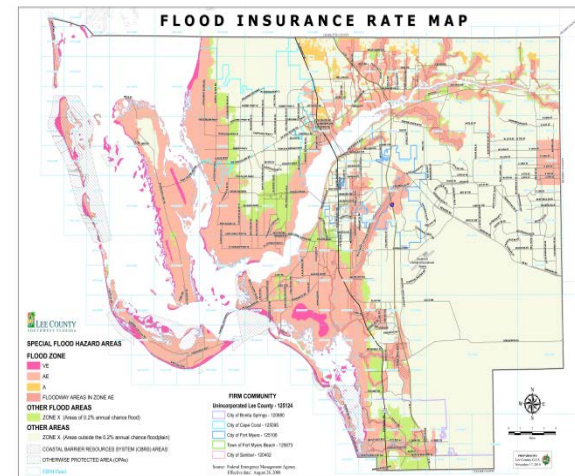
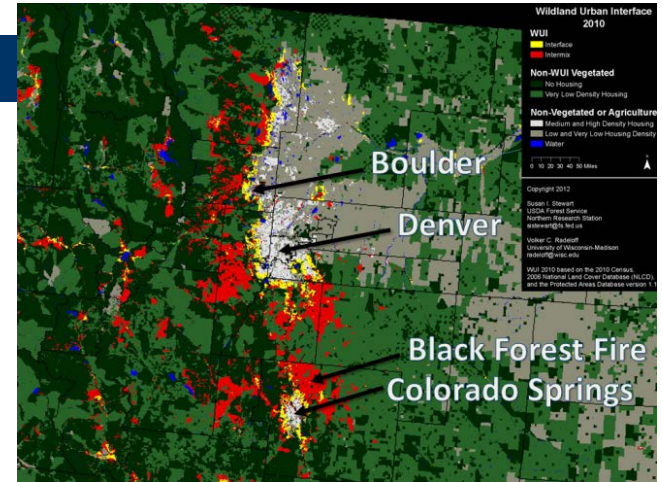


Session Agenda

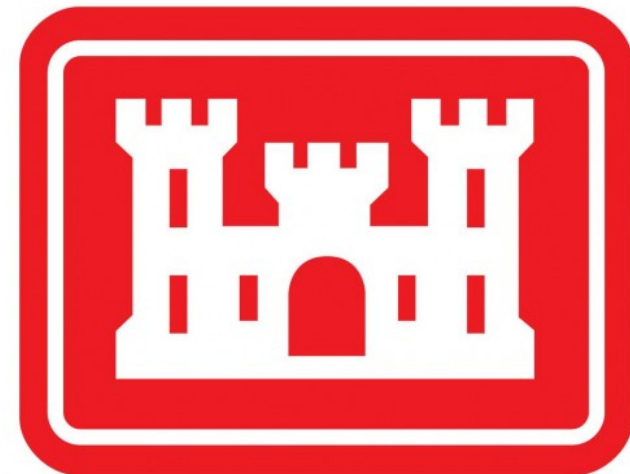


- **OVERVIEW**
 - Chris Duerksen, Senior Counsel, Clarion Associates
- **FEDERAL AND STATE HAZARD PLANNING**
 - Darrin Punchard, Principal, Hawksley Consulting
- **FEDERAL AND STATE WILDFIRE PLANNING**
 - Molly Mowery, Principal, Wildfire Planning International

TEST YOUR KNOWLEDGE: TOP TEN HAZARD PLANNING ACRONYMS



TEST YOUR KNOWLEDGE: TOP TEN HAZARD PLANNING ACRONYMS



TEST YOUR KNOWLEDGE: TOP TEN HAZARD PLANNING ACRONYMS—**TIE BREAKERS**

**NAME THESE TWO OLD WHITE GUYS AND
WHY THEY ARE FAMOUS HAZARDROIDS**



Natural Hazards: Why Plan For Disaster-Resilient Communities

- **Natural Hazards Plus Climate Change Impacts**
 - Flooding
 - Sea Level Rise
 - More Violent Storms
 - Drought/Water Shortages
 - Wildfires
 - Wildlife Habitat Destruction
 - Landslides/erosion



Natural Hazards: Why Plan For Disaster-Resilient Communities

- 10 Million Homes At Risk From Flooding; 2 Million From Coastal Storm Surges
- 75% of US Housing Stock Susceptible To Natural Hazards
- 70,000 Communities Subject To Significant Wildfire Risk
- Sea Level Rise Threatens Most Major Coastal Cities In USA
- Earthquake Faults In East and West Threaten Areas With Weak Building and Zoning Codes



THE CHALLENGES OF HAZARD PLANNING

- Local impact data sometimes lacking, inconclusive, or erroneous
- Hard to predict multiple and widely varying climate change impacts
- Differing community resources and contexts (urban, rural, coastal, interior)
- Lack of political willpower to restrain development in hazard areas
- Multiple local/state/federal agencies

The Legal Framework For Addressing Natural Hazards

- **National Flood Insurance Act of 1968 (42 USC 4104c)**
- **Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.)**



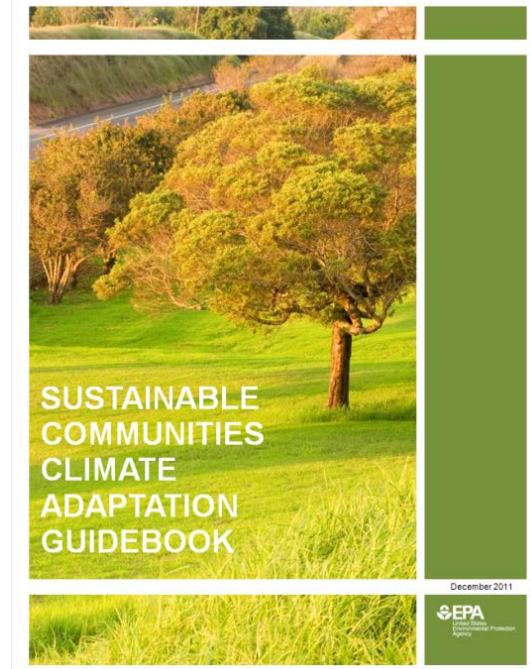
The Legal Framework For Addressing Natural Hazards

- **Coastal Zone Management Act (16 USC 1451 et seq.)**
- **Clean Water Act (33 USC 403; 1251)—Dredge and fill and storm water management**
- **Federal Wildfire/Wildland Fire Management**



THREE BASIC PRINCIPLES OF HAZARD PLANNING

- **Protect vulnerable areas from development**
- **Safeguard people and assets in vulnerable areas**
- **Encourage safe growth in appropriate, less-vulnerable areas**



Selected References

- **National Flood Insurance Program: FEMA** has many publications dealing with flood hazard planning and mitigation. See generally--
<http://www.fema.gov/business/nfip/>
- **Stafford Disaster Relief Act:** For an overview of the basic of local hazard mitigation planning.
<http://www.fema.gov/library/viewRecord.do?id=1867>
For an excellent guide to post-disaster planning, see “Post-Disaster Redevelopment Planning: A Guide for Florida Communities.” (2010)
<http://www.floridadisaster.org/recovery/documents/Post%20Disaster%20Redevelopment%20Planning%20Guidebook%20Lo.pdf>

Selected References

- **Wildfire/Wildland Planning:** For an overview of wildland fire protection roles and laws. see Donald Artley, “Wildland Fire Protection in the United States.” (2009) and Duerksen et al, “Addressing Community Wildfire Risk: A Review and Assessment of Regulatory and Planning Tools.” (2011 Fire Protection Research Foundation)
- **Coastal Zone Management Act:**
<http://www.fws.gov/laws/lawsdigest/coaszone.html>
- **U.S. EPA, “Sustainable Communities Climate Adaptation Guidebook.” (2013)**

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **National Flood Insurance Act of 1968 (42 USC 4104c)**
 - Created National Flood Insurance Program
 - Communities adopt and enforce a floodplain management ordinance approved by FEMA, and federal govt. makes available flood insurance (prior to that, private insurers would not offer flood insurance).
 - Costs taxpayers \$200 million annually and \$38 billion in claims since 1978.
 - Coastal Barrier Resources Act precludes federal flood insurance for new/improved structures on barrier islands

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.)**
 - State and local govts. required to develop hazard mitigation plans (Sec. 322) as condition for receiving non-emergency disaster assistance.
 - Risk-based approach to reducing natural hazards through mitigation planning
 - 44 CFR 201 sets out FEMA policies and procedures for mitigation planning. Must...
 - Incorporate open public process
 - identify risks and vulnerabilities
 - Describe actions to mitigate hazards and risks
 - Establish implementation strategy and update process
 - Grants available for local plans



The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **Coastal Zone Management Act (16 USC 1451 et seq.)**
 - Funding provided for state coastal zone management planning. All coastal states participate.
 - Federal projects and actions must be consistent with state plans.
 - State plans must address coastal hazard mitigation planning and shoreline erosion including potential impacts of sea level rise.
 - States require local governments to adopt plans and implementation strategies consistent with state plan to protect and restore natural resources in coastal zone while allowing growth.

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **Federal Wildfire/Wildland Fire Management**
 - 1995 Federal Wildland Fire Management Policy adopted by Depts. Of Agriculture, Interior, Defense, and Energy. Highly integrated.
 - Key goal is to suppress fires to protect human communities adjacent to federal lands. Legal authority to respond to fires threatening fed lands
 - Various federal laws support local efforts and provide grants for Community Wildfire Protection Plans (CWPP)
 - Reciprocal Fire Protection Act of 1955
 - Federal Land Policy and Management Act of 1976
 - 2009 Guidance for Implementation of Federal Wildland Fire Management Policy
 - Wildfire Suppression Assistance Act of 1989

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **CWPPs focus mainly on fuel reduction, defensible space, and fire-resistant building materials, not land use.**
- **All states have local govt. fire protection and suppression assistance programs**
 - Wildland fire training, equipment, etc.
 - Grants
 - Suppression assistance when local capabilities exceeded
 - Pay for suppression costs in some instances
- **State forester usually in charge of programs—widely divergent institutional arrangements.**

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **Section 404 of the Clean Water Act (33 USC 403)**
 - Grants Corps of Engineers and US EPA authority to regulate dredging and filling associated with navigable waters and coastal zone.
 - Helps reduce loss of wetlands and dunes that buffer communities from storm surges and floods
- **Clean Water Act (33 USC 1251)**
 - Requires construction erosion and sediment control programs and post-construction runoff regulations. Helps reduce flooding.
 - Opportunities for use of “green” infrastructure and preservation of native vegetation

The Legal Framework For Addressing Climate Adaptation And Natural Hazards

- **State land use and hazard mitigation laws**
 - **Climate change/adaptation or hazard mitigation must be addressed in local plans (FL, CA, OR)**
 - **All states have adopted hazard mitigation plans to qualify for Stafford Act funding. Local plans often required.**