



Plan Integration: Linkages with Local Planning Efforts

Pennsylvania American Planning Association

13 October 2014

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Outline

1. Introduction to Plan Integration
2. Pilot Process
3. Plan Integration Guide
4. Hazard Mitigation Principles in Comprehensive Plan Elements and other Local Planning Mechanisms
5. Case Studies
6. Cecil County- A Local Perspective
7. Open Discussion



What is Plan Integration?

- § A **two-way exchange** of information between hazard mitigation plans (state and local) and other community plans.
- § Specific to your community and depends on the hazards and **vulnerability of your built environment** to those hazards.
- § **Blending** your community's plans, policies, codes and programs that guide development and the **roles of people and government** in implementing these capabilities.

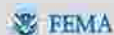


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Plan Integration can Reduce Risk

- § Providing a **greater understanding of a community's risk** to specific hazards and actions to address those risks.
- § Integrated hazard mitigation and comp planning/local planning can influence decisions to reduce risk
- § Having a standalone local hazard mitigation plan is not enough since it may not get implemented. By integrating hazard mitigation into other community growth and development policies, a community's risk could be reduced.
- § By gathering and synthesizing and providing an opportunity for **various departments** within the local government to work together on hazard mitigation principles will ultimately reduce risk.



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Two ways to accomplish Plan Integration – Plans and People

§ Integration into local planning mechanisms

- Consider natural hazards (past events, impacts and vulnerabilities)
- Identify hazard prone areas throughout the community
- Identify inconsistencies, gaps, and recommendations

§ Integration between departments

- Involve key community officials with authority to execute policies and programs
- Collaborate across departments to share knowledge and build relationships for successful implementation



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Who should be Involved?

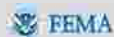
§ Regional Entities and State Agencies

- emergency management
- transportation
- public works
- planning
- environmental services

§ Representatives from county departments

- emergency management
- transportation
- public works
- planning
- environmental and historic services
- public information

§ Representatives from municipalities (Town or Borough Manager, secretary, councilman)



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Plan Integration Pilot - Objectives

To develop a Plan Integration Pilot for three FEMA Region III states (Delaware, Maryland, and Pennsylvania) to:

- § provide a greater understanding of plan integration concepts and mechanisms related to hazard mitigation in three communities so the process may be applied at a national level; and
- § incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns.

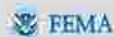


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Plan Integration Pilot Communities 3 Counties in 3 FEMA Region III States

- Bucks County, Pennsylvania
 - § location (suburban Philadelphia)
 - § large no. of jurisdictions
 - § less dependency of jurisdictions on county
- Cecil County, Maryland
 - § close local coordination with jurisdictions
 - § close regional coordination with Delaware
 - § upcoming HMP plan update
- New Castle County, Delaware
 - § close coordination between county and state agencies
 - § Upcoming Hazard Mitigation Plan Update



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Plan Integration Pilot Timeline

§ County Introductory Meetings – August 2013

- Project Objectives and Outcomes
- State Statutes
- Plan Integration Possibilities and Setbacks



§ County Municipal Workshops – October/November 2014

- Introduction to Plan Integration
- Examples and Best Practices
- Issues, Goals, and Recommendations by Topic
- Scenario discussion



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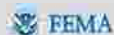
Plan Integration Pilot Timeline

§ Preparation of Plan Integration Guide – November 2013 - January 2014

- Guide Questions: Land Use, Transportation and Infrastructure, Emergency Management, Environment and Open Space and Plan Implementation
- Guide Sections: Integration of Hazard Mitigation Principles into Other Local Planning Mechanisms, Comprehensive Plans, and across departments

§ Selection of Pilot (Cecil County) for Integration – January 2014

- Plan Integration Pilot Workshop – February 2014
- Final Plan Integration Pilot Report/Guide – May 2014

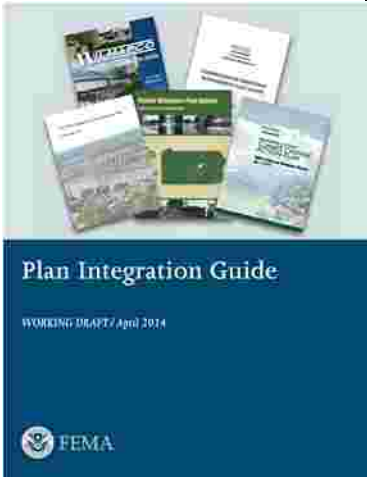




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Plan Integration Guide


- § Part 1 – Integration of Hazard Mitigation Principles into other **Local Planning Mechanisms**
- § Part 2 - Integration of Hazard Mitigation Principles into **Comprehensive Plan elements**
- § Part 3 – Integration Across **Agencies**






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Plan Integration Guide Icons Illustrations

- § Instructions to guide the reader through a step-by-step process on how to perform Plan Integration.
- § Examples show how other communities have performed plan integration. These examples can be considered as best practices in Plan Integration.
- § Illustrations are provided to assist in developing sections of the Plan Integration document. The language provided may be expanded, deleted, or modified as necessary to fit your community's situation and requirements.




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Hazard Mitigation and Comprehensive Planning - The Link

Hazard mitigation is an integral component of a community's comprehensive planning efforts and can influence future decisions made in important areas such as land use, transportation, economic development, etc.

Comprehensive Plan is a legal mechanism to implement development control and via zoning and capital improvements by the community's desired development pattern; hazard mitigation strategies have a higher likelihood of being implemented if they are part of the community's Comprehensive Plan.



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Hazard Mitigation Principles Comprehensive Plan Elements

Future Land Use

- n Growth management techniques - land conservation, buffering
- n Clustering of development - concentrating development outside high hazard areas.



Revitalization

- n Redevelop and retrofit structures with deficiencies to ensure structural integrity to withstand hazards
- n Relocate out of hazard areas to maintain the continuance of county services after a natural disaster

Housing

- n Program to retrofit or replace public and publicly subsidized affordable housing to reduce damage to inhabitants during a disaster



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Hazard Mitigation Principles Comprehensive Plan Elements

Environmental Resources

- § Policies that aim to restore and **protect natural resources** such as wetlands and **preserve their natural functions** that buffer and absorb the impacts of floodwaters.

Public Works/Infrastructure

- § Analysis of the adequacy of the existing and projected **transportation system to evacuate the population** prior to an impending natural disaster.

Historic Preservation

- § Historic resource protection, including historic site identification and **establishing performance standards for development and sensitive reuse** of historic resources.



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Hazard Mitigation Principles Local Planning Mechanisms

- n Capital Improvement Plans - Decisions to extend **roads or utilities** to an area may increase hazard exposure or structural flood protection such as levees or floodwalls.
- n Zoning Ordinance - Examples of zoning methods that affect flood hazard mitigation include: 1) adopting ordinances that limit development in the floodplain; 2) limiting the **density of developments** in the floodplain; 3) requiring that floodplains be maintained as open space.
- n Subdivision Ordinance - **Elevation data** collection during platting process, **cluster development**.

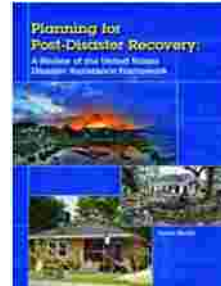


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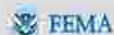
Hazard Mitigation Principles Local Planning Mechanisms

- § Building Code - Requirements for **building design standards and enforcement of: elevation of residential and elevation or floodproofing of non-residential structures, and snow loads and wind loads.**
- § Stormwater Management - Stormwater ordinances may regulate development in upland areas in order to reduce stormwater run-off. Examples of **erosion control techniques** within a watershed - proper bank stabilization with terracing hillsides, installing riprap, etc.
- § Post Disaster Recovery Ordinance - Regulates **repair activity** and prepares a community to respond to a disaster event in an orderly fashion by requiring citizens to obtain permits for repairs or make repairs using standard methods.



Case Studies Cecil County, MD and Broward County, FL

Case Studies	Cecil County, Maryland	Broward County, Florida
Location	Northeastern Maryland. Part of Delmarva (Delaware-Maryland-Virginia) peninsula	Southeastern Florida. Part of Miami metropolitan area
Population	101,000	1,800,000
Density	290/square mile	3,740/square mile
Area	417 square miles	1319 square miles
Municipalities	8	31
Character	Primarily rural	Primarily urban (east). Everglades National Park (west).
County Seat	Elkton	Fort Lauderdale
Plan Integration Status	Selected as pilot to perform Plan Integration in 2014.	Plan integration performed on Comprehensive Plan and other plans in 2010-2012.



Guide Questions Land Use

- § Does the future land use plan identify adequate space for projected future growth outside of these high hazard areas?
- § Does the plan include policies to restrict the density of new development in high hazard areas or guide new development away from high-hazard areas? Does the plan include policies to relocate vulnerable existing development to less vulnerable areas?
- § Does your plan include policies for existing structures and facilities to be strengthened, elevated, or relocated during the redevelopment process?
- § Are there any areas in the land use plan where a proposed rezoning would put more people at risk (for example, by allowing higher-density development in the 100-year floodplain)?

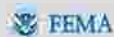


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Guide Questions Transportation and Infrastructure

- § Is the transportation network developed in a manner that provides redundancy (i.e. alternate routes) if certain key nodes or routes is affected by disaster?
- § Are there policies in place to protect transportation facilities such as airports, etc. from hazard events and to locate them outside of high hazard areas?
- § Are there any public transit stations/lines and highways in close proximity to floodprone areas?

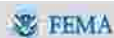


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Guide Questions Emergency Management

- § Has your community adopted an evacuation and shelter plan to deal with emergencies from natural hazards?
- § Does your EOP show major evacuation routes are prone to flooding?
- § Has your community prepared a post-disaster redevelopment plan (PDRP) that includes policies reduce the exposure of human life and public and private property to natural hazards after a disaster?
- § Does the PDRP include policies to address: short-term repair and clean-up actions needed to protect public health and safety and long-term repair and redevelopment activities; relocation, or structural retrofitting of damaged infrastructure; limiting redevelopment in areas of repeated damage; incorporation of hazard mitigation policies into the short- and long term recovery process?
- § Is there a policy to meet existing and future shelter demand to ensure the safety of residents in the event of a disaster?

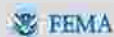


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Guide Questions Environment and Open Space

- § Is there a policy to utilize land that is otherwise unsuitable for development (such as in the floodplain, steep slopes) for recreational purposes thereby lowering the community's risk?
- § Are there policies to encourage development of waterfront areas for recreational purposes to serve as tourist attractions and provide an economic benefit to the community on land prone to hazards?
- § Do environmental policies maintain and restore protective ecosystems and provide incentives to development that is located outside protective ecosystems?
- § Are the hazard vulnerability implications of land development considered on a regional (or watershed) basis?



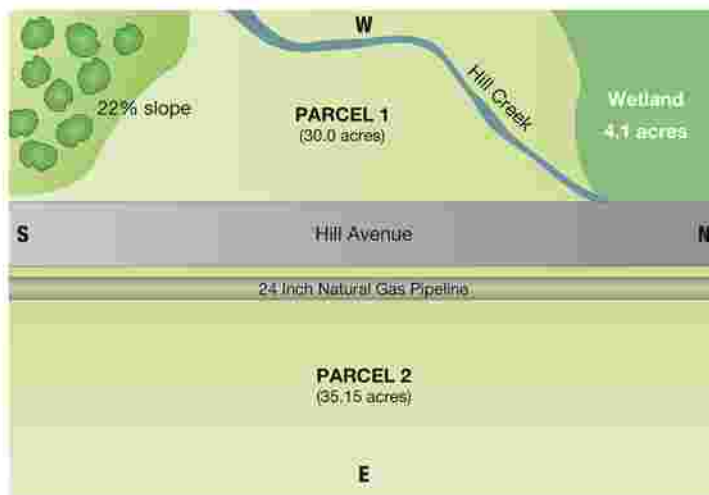
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Guide Questions Plan Implementation

- § Are there policies to reduce vulnerability to wind, fire, extreme temperatures, etc. through regulating the location, size, design, type, construction methods, and materials used in structures?
- § Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas and contain natural hazard overlay zones that set conditions for land use within such zones?
- § Does the CIP limit expenditures on projects that would encourage new development or additional development in vulnerable areas?
- § Do infrastructure policies limit extension of existing infrastructure, facilities that would encourage development in vulnerable areas?

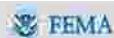
Plan Integration Development Scenario



Broward County Plans

§ County Plans

- Enhanced Local Mitigation Strategy (2012)
- Comprehensive Emergency Management Plan (2009)
- Broward County Continuity of Operations Plan (2011)
- Climate Change Action Plan (2011)
- Long Range Transportation Plan (2035)
- VisionBROWARD: A Community Economic Development Partnership
- Long Term Recovery and Redevelopment Strategy (2012)
- Broward County Recovery Framework (2012)
- Florida Building Code (2009)



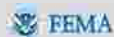
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Case Study Example Broward County, Florida

Options for Integration of Hazard Mitigation Principles into the LMS:

- § Explain how the County can foster municipalities to evaluate how the LMS is integrated with their community plans.
- § Explain how the County can evaluate its annual investment of repairing, replacing, upgrading, and/or new construction of facilities and infrastructure (i.e., Capital Improvement Plan process) as an opportunity to consider mitigation actions.
- § Include the Capital Improvement project list by reference in the LMS, for those projects that include hazard mitigation measures. Specify which projects are already underway.
- § Develop committee to review projects for hazard mitigation opportunities and have them coordinate with the existing Capital Improvement project review committee.



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Case Study Example Broward County, Florida

Options for Integration of Hazard Mitigation Principles into the Climate Change (CC) Action Plan:

- § Include a representative of the County CC Task Force in the review of the LMS vulnerability assessment for flood and wind risks based on climate change to ensure consistency.
- § The SFWMD and the Southeast Florida Regional CC Compact should participate in mitigation and preparedness exercises to discuss future risk scenarios.
- § Discuss with the CC Action Task Force how sustainability/climate change adaptation actions are considered, identified, prioritized, and funded. Have the Task Force consider adding multi-hazard mitigation considerations to this process (e.g., if the airport terminal roof is being renovated, make it more energy efficient, and more wind resistant).



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Lessons Learned Broward County Case Study

- § Use local hazard mitigation planning meetings as a forum to share best practices to increase mitigation knowledge throughout the community.
- § Use technology including Facebook and Twitter to share information with the general public and private sector.
- § Explore ways to make hazard mitigation cost effective and a part of daily community business procedures and decisions.
- § Identify how and when to use capital improvement funds for mitigation projects.
- § Include a wide range of local stakeholders in exercises and planning projects:
 - § Local hazard mitigation planners
 - § Interested private sector companies and organizations
 - § Non-profits
- § Communicate vulnerability and loss reduction savings to local political and executive leadership and the general public to demonstrate the benefits of integration.



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Benefits of Plan Integration

Learning about best practices from other jurisdictions:

- Punta Gorda, FL – Post-Hurricane Charley Sunloft Center Revitalization

Before



After



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Benefits of Plan Integration

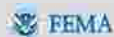
Learning about best practices from other jurisdictions:

- Punta Gorda, FL – Post-Hurricane Charley Housing Authority Revitalization

Before



After



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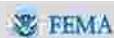
Cecil County and Municipalities Plans and Ordinances

§ County Plans and Ordinances

- 2010 Cecil County Comprehensive Plan
- 2011 Cecil County Zoning Ordinance
- 2011 Cecil County Subdivision Regulations

§ Municipal Plans and Ordinances

- 2003 Elkton Downtown Master Plan
- 2013 Elkton Floodplain Ordinance- Title 15 – Ordinance 5
- 2013 Port Deposit Floodplain Management Ordinance
- Port Deposit Comprehensive Plan Water Resource Element
- Charlestown Zoning Ordinance and Subdivision Ordinance
- 2008 Charlestown Comprehensive Plan
- 2013 Perryville Zoning Ordinance Forest Conversation Chapter 48
- 2013 Perryville Zoning Ordinance Floodplain Management Chapter 46



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Case Study Example Cecil County, Maryland

2010 Cecil County Comprehensive Plan

- § Add goal – “Encourage Cecil County to become a disaster resistant community that can be prepared for and thrive after a hazard event”.
- § Add Objective: Ensure that all new development is resistant to current and future hazards
- § Page 3-29 3. Add 'land use policies require development or redevelopment according to existing codes to reduce impact from hazards. that discourage development or redevelopment within natural hazard areas – steep slopes, coastal areas, 100-year floodplain, wind speed zones over 100mph.
- § Page 4-21 – Economic development policies and actions - No. 4 – Provide infrastructure including water sewer and roads to designated employment and mixed use areas with consideration of hazard areas.
- § Include on page 5-22 – Other Policies - Develop an emergency access and evacuation network map that identifies the roadways in the county that must be maintained for emergency access and emergency evacuation in case of a major hazard event.



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Case Study Example Cecil County, Maryland

Charlestown Zoning Ordinance

- § Section 175-22 Floodplain District needs to be rewritten based on the 2013 Charlestown Floodplain Ordinance. Also consider the Maryland Model Floodplain Ordinance.

2003 Elkton Downtown Master Plan

- § Develop a section on Safety in the Master Plan in 6.9 - Implementing the Master Plan to contain the following:
 - Road systems adequate for evacuation, notification
 - Maintenance of bridges into downtown
 - Historic sites within floodplain – Elk Landing
 - Union Hospital
 - Flooding of Elk Creek
 - Proper siting and design requirements with hazards in mind for redevelopment sites
 - Development of infrastructure – roads, bridges, open spaces and new development with safety in mind



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Cecil County Pilot – Lessons Learned Local Involvement and Coordination

- § Tasked with bringing all parties “to the table”
- § County: Planning and Zoning, Permits and Inspections, GIS, DPW
- § Health Department: Environmental Health Division
- § Town municipal planners, emergency preparedness and politicians



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Cecil County Pilot – Lessons Learned Response to Integration

- § County Departments: “We already integrate, don’t we?”
- § Local: In agreement, without resources.
- § Commonalities: Political restraints, shared resources

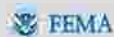


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Cecil County Pilot – Lessons Learned Workshop Dynamics

- § Conveying the importance of attendance
- § Participants from various agencies at the same table, for first time meeting
- § Removing defensive posture – open mind for improvement
- § Dialogue between municipalities
- § Identifying “in-house” resources to help with revisions

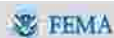


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Cecil County Pilot – Lessons Learned Steps Towards Implementation

- § Adjusting current plans and ordinances to address future needs and break from past trends (Charlestown and Port Deposit)
- § Incorporation of workshop recommendations into Comprehensive Plan Update for the Town of Elkton
- § Impact of public hearings, political opinion
- § Raised awareness of how to address the impact of hazards through the guidance of plans – a continual work in progress



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Plan Integration Challenges and Barriers

- § Lack of support from the local governing body to include hazard mitigation in the comprehensive plan and lack of coordination between the two processes.
- § Local capacity limitations – Staff volunteers
- § Various plan updates may follow different schedules. 5 years vs 20 yrs
- § Some states do not have a state agency to ensure local implementation or provide technical assistance to local governments
- § Lack of state-based funding for cities and counties to carry out their land use planning work and nonexistent budgets for planning staff
- § In small communities, city clerks, city treasurers, and city engineers serve as planners and may not be experienced to develop plans



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Plan Integration Benefits

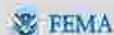
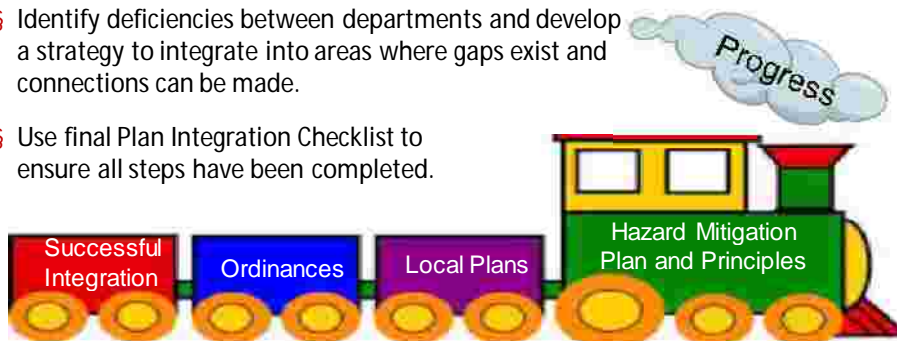
Enhances risk reduction through community-wide planning by:

- § Improving inter-departmental coordination
- § Developing specific recommendations for integration into community-wide plans
- § Compiling existing plan measures to include in your Hazard Mitigation Plan to illustrate that integration is being performed and meeting the Local Mitigation Plan Review Tool requirement to integrate hazard mitigation, per Elements A4 and C6
 - A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Req. §201.6(b)(3))
 - C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Req. §201.6(c)(4)(ii))

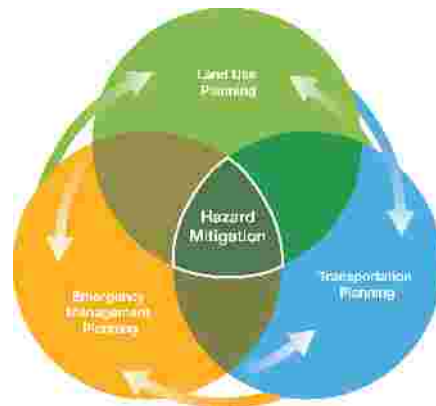


For Successful Plan Integration

- § Use the Hazard Mitigation Plan as a driver and platform to perform successful plan integration.
- § Identify where gaps exist between local planning mechanisms and develop a strategy to integrate hazard mitigation principles into daily planning.
- § Identify deficiencies between departments and develop a strategy to integrate into areas where gaps exist and connections can be made.
- § Use final Plan Integration Checklist to ensure all steps have been completed.



Hazard Mitigation and Local Planning Joined at the Hip!



Phase 2 Plan Integration Pilot Next Steps

§ Schedule - January 2015 to December 2015

- Virginia
- Pennsylvania
- West Virginia
- Maryland
- Delaware
- Washington DC



§ Tasks

- Plan Integration Introduction Webinars
- Review of plans and ordinances
- 2-day workshop
- Report – Issues, gaps, and recommendations

Phase 2 Plan Integration Pilot Community Selection Criteria

§ Criteria for Selection of Communities

- Number of flood insurance policies in force
- Total number of losses
- Number of repetitive loss properties
- Number of severe repetitive loss properties
- Number of repetitive loss properties mitigated
- Number of severe repetitive loss properties mitigated
- Action potential index



I told you so...mitigate, mitigate, mitigate!



"Mitigation isn't so funny now, is it?"

Thank You!



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Q&A

