A PLANNER’S RESPONSE TO THE PANDEMIC

HAZARD MITIGATION PLANNING
MICHIGAN CHAPTER OF THE AMERICAN PLANNING ASSOCIATION
Hazard Mitigation Planning

• Provide help and tools you can use now, as we navigate this new world
• Provide CM credits before the May 28 Grace period ends

Michigan Chapter Upcoming Events
• Scenario Planning Webinar, May 14, from 2 PM to 3:30 PM
• Planning Law Seminar on Tuesdays starting May 12
• Book Group, MAP Reads, on May 27
Why Planning is Still Important: Ten Things Planners Can Do Now

1. Essential Service versus Work from Home (WFH).
2. Remote Work.
3. Hazard Mitigation Team.
4. Virtual Alternatives.
5. Economic Response and Recovery.
6. Repurpose Planning Staff.
7. Scenario Planning.
8. Messaging.
TODAY’S PRESENTERS

Jim Schwab, FAICP

Pete Parkinson, AICP

Kara Drane, AICP
What’s in APA’s Planned Update?

Webinar Presentation for APA Michigan Chapter

May 7, 2020
Today's Presentation: Context and Content

APA's Legislation and Policy Committee and Process

Hazard Mitigation Policy Guide: Why Update?

Format of Updated Guide

Details of the Updated Guide
- Overall statements on hazard mitigation, including planning and process
- Best practices for all disasters
- Best practices for specific disasters

Who was involved in the update?

Questions and Answers
Appointed by the APA Board of Directors to Guide APA’s Policy Development and Advocacy

Our Charge ...

To translate policy development into effective advocacy and outreach that supports our strategic goals resulting in better policies at the federal, state, and local level

Our Work ...

Policy Guides, Legislative Priorities, Advocacy Positions, Member and Grassroots Engagement
Policy Guides

- Foundation of APA Advocacy
- Fundamental Statements of Belief
- Critical for Outreach and Issue Campaigns
- Broader than Legislative Priorities
- Concise and Focused on External Audiences
- NOT a Guide to Best Practice
Hazard Mitigation Policy Guide
Current Hazard Mitigation Policy Guide

April 2014
Adopted by the Delegate Assembly during the National Planning Conference in April 2014 in Atlanta

July 18, 2014
Ratified by the APA Board of Directors on July 18, 2014
Purpose for Revising the Policy Guide

Revisit All Hazards
Revisit all hazards, but specifically expand best practices and policies for wildfires, flooding, drought, and climate plans

Apply Equity Lens
Apply an equity lens throughout all best practices and policy outcomes

Include New Research
Include new hazard mitigation research and references materials
Revised Policy Guide Format

Introduction
Guiding Policies
Hazard Mitigation vs Adaptation vs Response/Recovery
Benefits of Hazard Mitigation Planning
Hazard Mitigation Planning Process
Adaptation and Recovery
Best Practices Applicable to All Disasters
Best Practices Applicable to Specific Types of Disasters
Natural Disasters
Human Caused Disasters
References and Further Reading
Guiding Policies Revisions

Best Practices
Data and Predictive Models
Resiliency Standards and Damage Resistance
**Equity** - strengthened
**Incentives** - strengthened
Public Education and Involvement
Preparedness
Adaptation
Response and Recovery
State and Local Land Use Authority
Protection of Vulnerable Populations and Assets
**Natural and Nature-Based Solutions** – new
**Public Health** – new
HAZARD MITIGATION
VERSUS
ADAPTATION
VERSUS
RESPONSE/RECOVERY

**Hazard Mitigation** – actions that lessen the severity or intensity of the hazard’s impact; begins with avoidance and minimization

**Adaptation** – modifying natural or built environment to make it more suited to changing conditions; can also mean changes in community

**Response/Recovery** – response during and after an event to protect public safety, health, and well-being and to facilitate community recovery
BENEFITS OF HAZARD MITIGATION PLANNING

- Increased capacity to deal with hazards among stakeholders and the public
- Improved coordination between different levels of government, NGOs, and business
- Aid governments in saving lives, property, and money
- Speed recovery from disasters
- Reduce risks and vulnerability from future disasters
- Expedite receipt of grant funding
- Demonstrate a firm commitment to improving community health, safety, and welfare
HAZARD MITIGATION PLANNING PROCESS

1. Organizing resources
2. Assessing risks
3. Developing the hazard mitigation plan
4. Implementing the plan and monitoring progress

ADAPTATION AND RECOVERY
1. Interagency, Regional, and Local Planning Capacity and Cooperation
2. Interrelationships Between Plans, Development Codes, and Ordinances
3. Resiliency Standards
4. Incentives
5. Stakeholder Involvement and Engagement
6. Public Education and Communication
7. Environmental Considerations
8. Response/Recovery Efforts
Interagency, Regional, and Local Planning Capacity and Cooperation

- Expand interagency and public/private partnerships
- Provide accurate maps of all hazards
- Involve all federal mapping agencies; prioritize use of single mapping product or dataset
- Establish protocols and agency leads among agencies and NGOs to enable better coordination
Interrelationships Between Plans, Development Codes, and Ordinances

- Mandate and support comprehensive plans that address hazard mitigation
- Educate leaders on importance of hazard mitigation prior to disasters
- Integrate Hazard Mitigation Action Plans into comprehensive plans
- Enhance codes to require stronger buildings and greater resilience
- Include land use and environmental planners as part of the team
- Report on resiliency and risk reduction planning to help identify best practices
- Protect populations in high-hazard areas
• Develop improved resiliency standards for infrastructure investment and disaster recovery efforts
• Focus standards on economic, social, and institutional as well as physical resilience
• Establish land-use planning decision frameworks that rely on vulnerability analyses
• Develop, adopt, and enforce building codes that provide greater resiliency
• Design and invest in infrastructure that helps protect communities from hazards
• Encourage the use of natural and nature-based infrastructure approaches to hazard protection
• Encourage the use of redundant, smaller-scale infrastructure
• Develop standards and incentives to install electricity microgrids based on renewable energy sources
• Research legal, financial, ethical, and equity issues of managed retreat to more resilient locations
• Healthy, safe, and adequate supply of housing for all economic segments
• Use resilience as guiding principle in land-use decisions through comprehensive planning and zoning
• Ensure Integration of resiliency and sustainability principles into capital planning programs
Incentives

- Reduce or eliminate incentives that encourage development in hazard-prone areas
- Provide incentives to improve resiliency
- Include funding for enhanced resiliency standards within disaster assistance funding
- Offer buy-out bonuses for relocating away from high-hazard areas
- Maintain long-term viability of hazards insurance programs
- Ensure that equity components are an essential part of incentives
- Support programs that incentivize planning and preparedness
Stakeholder Involvement and Engagement

- Incorporate planners and other community partners in the hazard mitigation planning process
- Engage residents, business, health care and social service agencies in the planning process
- Develop regional partnerships and civic engagement
Public Education and Communication

- Increase support for research and data on natural and human-caused hazards
- Support web-based interactive data
- Develop robust hazard notification systems
- Educate the public before disasters on preparedness, community responses and assistance for vulnerable populations
- Educate public on risks in hazard-prone areas
- Develop and utilize grassroots networks for response and recovery
• Increase research into the effectiveness of natural and nature-based solutions
• Support tax incentives to utilize environmentally sensitive building and development techniques
• Improve environmental resilience for critical infrastructure
• Restore natural systems repair and environmental damage from previous development
• Enhance credits for conservation easements based on ecological values and ecosystem services
Environmental Considerations (continued)

- Document green infrastructure best practices and successful case studies
- Restore ecosystem and environmental health after disasters
- Ensure that natural and nature-based solutions can compete on equal footing with structural solutions
- Encourage creation of wetlands and other nature-supportive features on lands acquired for mitigation
- Recognize impacts of disasters on wildlands and wildlife
• Make response/recovery plans a mandatory component of community hazard mitigation plans

• Provide adequate funding to build to higher standards or relocate structures

• Adopt policies that will speed and streamline response/recovery efforts that support innovative and resilient rebuilding

• Encourage communities to develop emergency land-use tools in advance of disasters to address displacement issues
Response/Recovery Efforts (continued)

- Support real-time disaster warning systems with built-in redundancy
- Require new schools and similar community buildings to be designed to serve as short-term emergency shelters
- Develop public outreach and education strategies for both pre- and post-disaster conditions to assist with social recovery
- Encourage communities to plan for support of animals
- Encourage comprehensive and cross-sector evacuation planning
Best Practices and Policy Outcomes for Specific Natural Disasters

- Disease / Pandemic
- Drought
- Earthquakes, Landslides, and Geologic Hazards
- Extreme Heat / Cold
- Flooding
- Hurricanes and Other Tropical Storms
- Sea Level Rise and Coastal Land Subsidence
- Tornadoes, High Winds, Severe Thunderstorms, and Severe Dust Storms
- Tsunamis and Seiches
- Volcanic Eruptions
- Wildfires
- Winter Storms / Ice
Disease / Pandemic

- Interdisciplinary teams to build capacity
- Protect water and food sources from contamination
- Plan for shutdowns or modified operation of public services
- Have pandemic plans in place
- Ensure protection from zoonotic illness
- Conduct surveillance of human and animal viruses
- Protect waterways
- Protect waterways
- Enhance plans to prevent plant disease
- National and state communications plans
Drought exacerbates other events

Technology for real-time conservation response

Use "One Water" concepts to maximize options

Interagency planning for drought

Training exercises
Earthquakes, Landslides, and Geologic Hazards

- Landslides and geologic hazards an added focus
- Critical facilities strengthened
- Manage groundwater to avoid land subsidence
- Identify risks from dams and levees
- Research and mitigate earth fissures, sink holes, and land subsidence
- Ensure building functionality following an earthquake
- Strengthen critical lifeline infrastructure
- Avoid development in landslide-prone areas
Extreme Heat / Cold

Plan to manage extreme heat/cold events, including power outages

Plan communities to mitigate impacts of extreme heat

Shelter facilities for at-risk populations

Monitoring for house-bound populations

Avoid utility cutoff for vulnerable populations

Provide heating and cooling in publicly supported housing
Flooding

- Develop comprehensive predictive flood maps
- Include flood coverage in all standard insurance policies
- Adequate gages and hydrologic modeling
- Support services/relocation for communities of color and vulnerable populations
- Communicate flood risk by using flood depth, velocity and risk grids
- Combine crowdsource data from flood events with remote sensing data
- Support greater freeboard above BFE
- Local floodplain regulations based on most severe flood on record
- Market NFIP contents insurance for renters
Hurricanes and Other Tropical Storms

- Building codes based on predictive wind and water models
- Place new electrical systems underground in areas subject; incentivize relocation of existing overhead lines
- Schools and public facilities designed and equipped as emergency shelters
- Develop a common terminology to identify evacuation zones, flood zones, safe/unsafe parking zones
Sea Level Rise and Coastal Land Subsidence

Support natural resource restoration to protect communities

Infrastructure projects address sea level rise impact

Economic modeling tools for financial impacts of sea level rise

Develop new foundations and buildings that rise and fall with water levels

Community planning for strategic and managed retreat and adaption

Equitable policies for communities of color and economically disadvantaged during managed retreats
Tornadoes, High Winds, Severe Thunderstorms and Severe Dust Storms

- Severe dust storm emphasis added
- Stand-alone safe room development in rural areas
- Public schools and places of public assembly equipped tornado safe rooms
- Upgrade codes for mobile home construction and anchoring in high wind areas
Tsunamis and Seiches

- Land-use plans include tsunami risk
- Development standards for areas at risk of seiches
- Keep critical facilities out of tsunami inundation zones
- Mapping of tsunami risk areas
- Identify and sign tsunami evacuation routes
Volcanic Eruptions

Expand funding for next-gen volcanic research

Increased public awareness of volcano hazards

Publish evacuation routes and evacuation Protocols in affected areas
Wildfires

- Wildland management policies to reduce wildland fuel loads
- Use NFPA Firewise principles in Community Wildfire Protection Plans
- Limit development in wildfire prone areas using planning tools
- Systematic approach to wildfire risk assessment
- Maintenance and hardening of the electrical grid
- Fire harden existing structures in wildland-urban interface areas
Winter Storms / Ice

Plan for response to winter storm events

Fund shelter, heat, and food for vulnerable residents

Maintain transportation systems during winter storms

Utilities resist damage and loss during winter storm events

Cross-jurisdictional adaptive planning and facility design
Best Practices and Policy Outcomes for Human-Caused Disasters

- Airport Hazards and Land Use Compatibility
- Biological, Chemical, or Radiological Agents
- Dam and Levee Failures
- Hazardous Material Incidents
- Safe Drinking Water
- Terrorism and Civil Disobedience
Airport Hazards and Land Use Compatibility

Protect accident potential zones and clear zones from incompatible uses

Increase protection of airports and air travel from terroristic threats
Biological, Chemical, or Radiological Agents

- Burden of proof for chemical safety on manufacturers
- Strengthen standards for manufacturing, transportation, and storage
- Require that materials are located and handled to protect health and safety
- Adequate buffer zones when considering new residential or institutional development
- Develop national GIS map of grayfields
Dam and Levee Failures

- Design new and repaired levees to the 500-year floodplain standard.
- Prohibit levees protecting agricultural land from being used to permit new development.
- Regulate areas downstream of high-risk dams and non-certified levees as Special Flood Hazard Areas.
- Monitor dams that hold waste more frequently and require immediate repair.
- Establish a new dam rating system to address seismic hazards and cumulative downstream impacts.
Hazardous Material Incidents

- Strengthen research on risks and location of human-caused hazards
- Support safer transportation of hazardous materials
- Evaluate routes to avoid heavily populated areas
- Contingency plans for waterway contamination events
- Limit development near man-made hazards
- More frequent inspections of pipelines; zero-tolerance policy for violations
- Raise awareness of local risks
- Additional training and materials for first responders
- Separate hazardous material facilities from sensitive locations
Safe Drinking Water

Promote protections of drinking water sources

Fund research on risks and location of unsafe drinking water

Invest in drinking water infrastructure including upgrades of drinking distribution systems
Terrorism and Civil Disobedience

- Improve threat assessment and public warning system
- Cybersecurity systems for critical infrastructure
- Coordinate plans and responses to minimize threats
- Coordinate law enforcement and homeland security planners and hazard mitigation and land-use planners
- Crime prevention through environmental design
- Physically attractive barriers appropriate to the context
- Protect infrastructure and public spaces from terrorist threats, gun violence, and cyberterrorism
Principal Authors

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Interested? Questions?

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Thank you to our presenters

This presentation and other resources will be placed on MAP’s website, www.planningmi.org

Look for the Planning Tools During COVID-19 button