

## South Carolina Silver Jackets NHMA DRR Workshop Resources July 24 - 25, 2018

### ***NHMA Post-Disaster Series Resource Feedback Survey***

Poster-sized versions of these resource documents were on the walls during the conference. Please take some time to review them by following the link below. Your input is very much appreciated.

<https://www.surveymonkey.com/r/NHMAJuly2018>

***The following resources were used in the development of, or referenced in the presentation of the workshop modules.***

#### **DAY ONE**

#### **Introduction to the Natural Hazard Mitigation Association and the Disaster Risk Reduction Ambassador Curriculum**

- Natural Hazard Mitigation Association (NHMA) [nhma.info/](http://nhma.info/)
- Building Your Roadmap to a Disaster Resilient Future [nhma.info/wp-content/uploads/2017/10/Roadmap\\_20171001.pdf](http://nhma.info/wp-content/uploads/2017/10/Roadmap_20171001.pdf)
- Resilient Neighbors Network [resilientneighbors.com/](http://resilientneighbors.com/)

#### **Introduction to Disaster Risk Reduction as a Foundation of Whole Community Resilience**

- Munich RE, NatCatSERVICE, January 2017 “Loss Events in the U.S. 1980-2016,” [munichre.com/site/mram-mobile/get/documents/E1982729150/mram/assetpool.mr\\_america/Images/5\\_Press\\_News/Press%20Releases/2016/1980\\_2016\\_Paket\\_USA.pdf](http://munichre.com/site/mram-mobile/get/documents/E1982729150/mram/assetpool.mr_america/Images/5_Press_News/Press%20Releases/2016/1980_2016_Paket_USA.pdf)
- Swiss Re 2016, “Natural Catastrophes and Man-Made Disasters in 2015,” [media.swissre.com/documents/sigma1\\_2016\\_en.pdf](http://media.swissre.com/documents/sigma1_2016_en.pdf)
- The OARS List (Organizations Addressing Resilience and Sustainability) [theoarslist.com/](http://theoarslist.com/)
- Mazur, L. “Resilience Matters: Sustainable, Equitable Solutions” 2017, Island Press [nhma.info/new-e-book-resilience-matters-2016-sustainable-equitable-solutions/](http://nhma.info/new-e-book-resilience-matters-2016-sustainable-equitable-solutions/)
- FEMA:
  - Strategic Plan 2018-2022 [fema.gov/media-library-data/1521736077767-89fc0afeacb7a93bd7b6a1091aaeba2b/strat\\_plan.pdf](http://fema.gov/media-library-data/1521736077767-89fc0afeacb7a93bd7b6a1091aaeba2b/strat_plan.pdf)
  - What is Hazard Mitigation? [fema.gov/what-mitigation](http://fema.gov/what-mitigation)
  - Wildfires (DHS Ready.Gov) [ready.gov/wildfires](http://ready.gov/wildfires)
- NHMA:
  - Hide from the Wind: Tornado Safe Rooms in Central Oklahoma [nhma.info/wp-content/uploads/2015/09/FINAL-TASK5-9-11.pdf](http://nhma.info/wp-content/uploads/2015/09/FINAL-TASK5-9-11.pdf)
  - NHMA: Recommendations from NHMA [nhma.info/resources/recommended-reading/](http://nhma.info/resources/recommended-reading/)

- National Oceanic and Atmospheric Administration (NOAA): Billion-Dollar Weather and Climate Disasters: Overview ([ncdc.noaa.gov/billions/](https://www.ncdc.noaa.gov/billions/))
- [South Carolina Ready.gov](https://www.southcarolinaready.gov/)
- 2018 South Carolina Hazard Mitigation Plan  
<https://scemd.org/em-professionals/plans/hazard-mitigation-plan/>

**Additional information on this topic**

- Nelson, A.C. Autumn 2006, "Leadership in a New Era." *Journal of the American Planning Association*, Vol. 72, No. 4
- Wilkinson, R.G., Pickett, K. "The Spirit Level: Why More Equal Societies Almost Always Do Better" 2009, Bloomsbury Press
- Slaper, T.F, Hall, T.J., Spring 2011 "The Triple Bottom Line: What Is It and How Does It Work?" *Indiana Business Review*, Volume 86, No. 1  
[ibrc.indiana.edu/ibr/2011/spring/article2.html](http://ibrc.indiana.edu/ibr/2011/spring/article2.html)
- "The Urban Resilience Project," Island Press [islandpress.org/urban-resilience-project](http://islandpress.org/urban-resilience-project)

**Risk Assessment Basics**

- Circular A-94 Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs  
[whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A94/a094.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A94/a094.pdf)
- FEMA:
  - Benefit-Cost Analysis [fema.gov/benefit-cost-analysis](https://www.fema.gov/benefit-cost-analysis)
    - Benefit-Cost Analysis Toolkit V5.1 System Requirements [fema.gov/media-library-data/1425046035342-b8a41ac35152931950f8bd7162b7081d/BC-V5-1SysRequirement2-11-2015\\_508.pdf](https://www.fema.gov/media-library-data/1425046035342-b8a41ac35152931950f8bd7162b7081d/BC-V5-1SysRequirement2-11-2015_508.pdf)
  - Emergency Management Institute [training.fema.gov/](https://www.training.fema.gov/)
  - Flood Map Service Center [fema.gov/msc-theme-template-v1](https://www.fema.gov/msc-theme-template-v1)
  - Flood Map Service Center: Hazus 4.2 [msc.fema.gov/portal/resources/hazus](https://www.msc.fema.gov/portal/resources/hazus)
  - Hazard Identification and Risk Assessment [fema.gov/hazard-identification-and-risk-assessment](https://www.fema.gov/hazard-identification-and-risk-assessment)
  - Rapid Visual Screening of Buildings for Potential Seismic Hazards: A Handbook (3<sup>rd</sup> ed. FEMA P-154) January 2015 [fema.gov/media-library-data/1426210695633-d9a280e72b32872161efab26a602283b/FEMAP-154\\_508.pdf](https://www.fema.gov/media-library-data/1426210695633-d9a280e72b32872161efab26a602283b/FEMAP-154_508.pdf)
- Integrated Hazards Assessment Tool (IHAT) (FEMA Best practices write-up)  
[fema.gov/media-library-data/1461933984986-bbb94b669d354f1bff4420a8272f46df/20-Mapping-Risks-and-Vulnerabilities\\_web2.pdf](https://www.fema.gov/media-library-data/1461933984986-bbb94b669d354f1bff4420a8272f46df/20-Mapping-Risks-and-Vulnerabilities_web2.pdf)
- December 2017 "Natural Hazard Mitigation Saves: 2017 Interim Report," *National Institute of Building Sciences* [wbdg.org/files/pdfs/MS2\\_2017Interim%20Report.pdf](https://www.wbdg.org/files/pdfs/MS2_2017Interim%20Report.pdf)

- NOAA: Global and Regional Sea Level Rise Scenarios for the United States (NOAA Technical Report NOS CO-OPS 083), January 2017  
[tidesandcurrents.noaa.gov/publications/techrpt83\\_Global\\_and\\_Regional\\_SLR\\_Scenarios\\_for\\_the\\_US\\_final.pdf](https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf)
- Ready.gov Risk Assessment [ready.gov/risk-assessment](https://ready.gov/risk-assessment)

**Additional information on this topic**

- FAA: Treatment of the Values of Life and Injury in Economic Analysis, September 2016  
[faa.gov/regulations\\_policies/policy\\_guidance/benefit\\_cost/media/econ-value-section-2-tx-values.pdf](https://faa.gov/regulations_policies/policy_guidance/benefit_cost/media/econ-value-section-2-tx-values.pdf)
- Hallegatte, S. “Natural Disasters and Climate Change: An Economic Perspective,” Springer International Publishing, 2014
- “New York City Panel on Climate Change 2015 Report,” Chapter 2: “Sea Level Rise and Coastal Storms” Annals of the New York Academy of Sciences  
[nyaspubs.onlinelibrary.wiley.com/doi/10.1111/nvas.12593](https://nyaspubs.onlinelibrary.wiley.com/doi/10.1111/nvas.12593)

**Risk Assessment through Storytelling: An Asset-Based Approach**

- FEMA: Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards [fema.gov/media-library/assets/documents/30627](https://fema.gov/media-library/assets/documents/30627)
- Freitag, R., Abramson, D., Chalana, M., & Dixon, M. Autumn 2014 “Whole Community Resilience: An Asset-Based Approach to Enhancing Adaptive Capacity before a Disruption” *Journal of the American Planning Association* Volume 80, No.4

**Leveraging Resources to Improve Disaster Risk Reduction**

- FEMA:
  - Flood Mitigation Assistance Grant Program  
[fema.gov/flood-mitigation-assistance-grant-program](https://fema.gov/flood-mitigation-assistance-grant-program)
  - Hazard Mitigation: Integrating Best Practices into Planning [fema.gov/media-library/assets/documents/19261](https://fema.gov/media-library/assets/documents/19261)
  - Local Mitigation Plan Review Guide [fema.gov/media-library-data/20130726-1809-25045-7498/plan\\_review\\_guide\\_final\\_9\\_30\\_11.pdf](https://fema.gov/media-library-data/20130726-1809-25045-7498/plan_review_guide_final_9_30_11.pdf)
  - Risk Mapping, Assessment and Planning (Risk MAP) [fema.gov/risk-mapping-assessment-and-planning-risk-map](https://fema.gov/risk-mapping-assessment-and-planning-risk-map)
  - Video “Higher Standards: Increased Cost of Compliance”  
[fema.gov/media-library/assets/videos/153762](https://fema.gov/media-library/assets/videos/153762)
- Joplin Schools Community Safe Room (CSR) Shelter Operations Plan (Sample CSR Operations and Maintenance (O&M) Plan) [fema.gov/media-library-data/1426851051756-b2ebb4389cf133d28fd5225707100f3d/Joplin\\_Schools\\_Shelter\\_Op\\_Plan\\_508.pdf](https://fema.gov/media-library-data/1426851051756-b2ebb4389cf133d28fd5225707100f3d/Joplin_Schools_Shelter_Op_Plan_508.pdf)

- National Fire Protection Association: Firewise USA  
[nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA](https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA)
- NHMA: Hide from the Wind: Tornado Safe Rooms in Central Oklahoma [nhama.info/wp-content/uploads/2015/09/FINAL-TASK5-9-11.pdf](https://www.nhama.info/wp-content/uploads/2015/09/FINAL-TASK5-9-11.pdf)
- National Institute of Standards & Technology Community Resilience Program (NIST-CR)  
[nist.gov/topics/community-resilience](https://www.nist.gov/topics/community-resilience)
- NOAA
  - National Weather Service: NWS StormReady® Program [weather.gov/StormReady](https://www.weather.gov/StormReady)
  - Coastal Resilience Grants Program [coast.noaa.gov/resilience-grant/](https://www.coast.noaa.gov/resilience-grant/)
- Planning for Post-Disaster Recovery Briefing Papers: Adopt a Pre-Event Recovery Ordinance  
[planning-org-uploaded-media.s3.amazonaws.com/legacy\\_resources/research/postdisaster/briefingpapers/pdf/recoveryordinance.pdf](https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/research/postdisaster/briefingpapers/pdf/recoveryordinance.pdf)

***Additional information on this topic***

- Bay Area Challenge: Resilient by Design [resilientbayarea.org/](https://resilientbayarea.org/)
- Nabers, M.S. March 2018 “It has not been swift....but Federal funds will soon flow into Texas and Florida” *SPI Insights* [spartnerships.com/swiftbut-federal-funds-flow-texas-florida/](https://spartnerships.com/swiftbut-federal-funds-flow-texas-florida/)
- The Nature Conservancy 2017: Water Quality Blueprint (©)  
[nature.org/ourinitiatives/regions/northamerica/unitedstates/vermont/freshwater/nature-based-solutions-for-clean-water.xml](https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/vermont/freshwater/nature-based-solutions-for-clean-water.xml)

**Climate and Weather Tools and Trends**

- Carolinas Integrated Sciences and Assessments [cisa.sc.edu/](https://cisa.sc.edu/)
- Climate Prediction Center [cpc.ncep.noaa.gov](https://cpc.ncep.noaa.gov)
- Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) [cocorahs.org/](https://cocorahs.org/)
- International Research Institute for Climate and Society [iri.columbia.edu](https://iri.columbia.edu)
- LCAT (Local Climate Analysis Tool) (need a NOAA sponsor) [nws.weather.gov/lcat/](https://www.nws.weather.gov/lcat/)
- National Center for Environmental Information [ncdc.noaa.gov/climate-monitoring/](https://www.ncdc.noaa.gov/climate-monitoring/)
- National Hurricane Center [aoml.noaa.gov/hrd/hurdat/All U.S. Hurricanes.html](https://www.aoml.noaa.gov/hrd/hurdat/All_U.S._Hurricanes.html)
- National Water Center/Office of Water Prediction (NWS) [water.noaa.gov](https://www.water.noaa.gov)
- South Carolina State Climatology Office [dnr.sc.gov/climate/sco/](https://www.dnr.sc.gov/climate/sco/)
- Southeast Regional Climate Center [sercc.com](https://www.sercc.com)
- Southeast River Forecast Center NWS [weather.gov/serfc/](https://www.weather.gov/serfc/)
- Storm Prediction Center [spc.noaa.gov/wcm/](https://www.spc.noaa.gov/wcm/)
- ThreadEx (Threaded Station Extremes) [threadex.rcc-acis.org](https://threadex.rcc-acis.org)
- U.S. Drought Monitor [droughtmonitor.unl.edu/](https://droughtmonitor.unl.edu/)
- xmACIS2 <https://xmacis.rcc-acis.org/>

### **Facebook links**

[www.facebook.com/NWSColumbia](http://www.facebook.com/NWSColumbia)  
[www.facebook.com/NWSWilmingtonNC](http://www.facebook.com/NWSWilmingtonNC)  
[www.facebook.com/NWSRaleigh](http://www.facebook.com/NWSRaleigh)  
[www.facebook.com/NWSBlacksburg](http://www.facebook.com/NWSBlacksburg)  
[www.facebook.com/NWSGSP/](http://www.facebook.com/NWSGSP/)  
[www.facebook.com/NWSWakefieldVA](http://www.facebook.com/NWSWakefieldVA)  
[www.facebook.com/NWSMoreheadCity](http://www.facebook.com/NWSMoreheadCity)

## **DAY TWO**

### **Legal and Policy Opportunities for Disaster Risk Reduction**

- American Planning Association (APA) “Policy Guide on Takings”  
[planning.org/policy/guides/adopted/takings.htm](http://planning.org/policy/guides/adopted/takings.htm)
- Association of State Floodplain Managers [floods.org/](http://floods.org/)
- Thomas, E.A., Mazur, L. October 2015 “The Legal Consequences of Ignoring Climate Change,” *Governing: The States and Localities*” [governing.com/gov-institute/voices/col-legal-consequences-local-decision-makers-ignoring-climate-risk.html](http://governing.com/gov-institute/voices/col-legal-consequences-local-decision-makers-ignoring-climate-risk.html)
- [www.floods.org/PDF/ET Katrina Insurance 082907.pdf](http://www.floods.org/PDF/ET_Katrina_Insurance_082907.pdf)
- Thomas, E.A., May 2015 “Major Court Decision with implications for Climate Adaptation, Hazard Mitigation and a Safer and More Just Future” [nhma.info/publications/legal/](http://nhma.info/publications/legal/)
- Thomas, E.A., Medlock, S.R. 2008 “Mitigating Misery: Land Use and Protection of Property Rights Before the Next Big Flood,” *Vermont Journal of Environmental Law*, Vol. 9  
[floods.org/PDF/Mitigation/ASFPM Thomas&Medlock FINAL.pdf](http://floods.org/PDF/Mitigation/ASFPM_Thomas&Medlock_FINAL.pdf)
- Thomas, E.A. 2016 “Natural Hazard Disaster Risk Reduction as an Element of Resilience: Considerations about Insurance and Litigation,” *International Risk Governance Council (IRGC) Resource Guide on Resilience* [irgc.org/risk-governance/resilience/](http://irgc.org/risk-governance/resilience/)
- NOAA “Hazard and Resiliency Planning: Perceived Benefits and Barriers among Land Use Planners” [coast.noaa.gov/data/digitalcoast/pdf/hazard-planning.pdf](http://coast.noaa.gov/data/digitalcoast/pdf/hazard-planning.pdf)
- Kusler, J. September 2007 “Professional Liability for Construction in Flood Hazard Areas,” for the Association of State Floodplain Managers  
[floods.org/PDF/ASFPM Professional Liability Construction.pdf](http://floods.org/PDF/ASFPM_Professional_Liability_Construction.pdf)

### ***Additional information on this topic***

- Thomas, E.A., Johnson, L. March/April 2014, “Turning Koontz into an Opportunity for More Resilient Communities,” *National Wetlands Newsletter*, vol.36, no.2  
[americanbar.org/content/dam/aba/administrative/state\\_local\\_government/land\\_use.authcheckdam.pdf](http://americanbar.org/content/dam/aba/administrative/state_local_government/land_use.authcheckdam.pdf)

- Thomas, E. 2007 “Recovery Following Hurricane Katrina: Will litigation and uncertainty Today Make for an improved Tomorrow?” *National Wetlands Newsletter*, vol. 29, no. 5 [nhma.info/uploads/resources/ET\\_Katrina\\_Insurance\\_082907.pdf](http://nhma.info/uploads/resources/ET_Katrina_Insurance_082907.pdf)
- Mazur, L, Thomas, E.A. September 2016 “Why Current Disaster Planning Doesn’t Cut it, and What We Can Do Instead,” *The Hill*

### **Beyond Codes**

- Risk Engineering and System Analytics Center at Clemson University (RESA) [resacenter.com/](http://resacenter.com/)
- Community & Regional Resilience Institute [www.resilientus.org/](http://www.resilientus.org/)

### **Design for Flood Resilience, Part I: Floodplain Management and Flood Resistant Design**

- Association of State Floodplain Managers (ASFPM)
  - December 2016 “Floodplain Management 2016: Local Programs” [floods.org/ace-images/FPM2016-LocalPrograms\\_Final.pdf](http://floods.org/ace-images/FPM2016-LocalPrograms_Final.pdf)
  - March 2008 “White Paper: NAI—No Adverse Impact Floodplain Management” [floods.org/NoAdverseImpact/NAI\\_White\\_Paper.pdf](http://floods.org/NoAdverseImpact/NAI_White_Paper.pdf)
- Design for Flooding,” Watson, D., Adams, A., 2011, John Wiley and sons
- FEMA:
  - Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas, 4th Edition (FEMA P-55, 2011) [fema.gov/media-library/assets/documents/3293](http://fema.gov/media-library/assets/documents/3293)
  - Flood Insurance Definitions [fema.gov/national-flood-insurance-program/definitions](http://fema.gov/national-flood-insurance-program/definitions)
  - Protecting Building Utility Systems From Flood Damage (FEMA P-348, 2017) [fema.gov/media-library/assets/documents/3729](http://fema.gov/media-library/assets/documents/3729)
  - Selecting Appropriate Mitigation Measures for Floodprone Structures (2007) [fema.gov/media-library/assets/documents/10618](http://fema.gov/media-library/assets/documents/10618)
- Perkes, D., “Floodproof Construction” [nado.org/wp-content/uploads/2014/09/Perkes-Presentation.pdf](http://nado.org/wp-content/uploads/2014/09/Perkes-Presentation.pdf)
- Jones, P.E. June 2017, “Flood Resistance of the Building Envelope” *Whole Building Design Guide* [wbdg.org/resources/flood-resistance-building-envelope/](http://wbdg.org/resources/flood-resistance-building-envelope/)
- Highlights of the National Climate Assessment [nca2014.globalchange.gov/highlights](http://nca2014.globalchange.gov/highlights)
- “Naturally Resilient Communities, Enhanced Floodplain Mapping” [nrcsolutions.org/mapping-planning-regulation-enhanced-floodplain-mapping/](http://nrcsolutions.org/mapping-planning-regulation-enhanced-floodplain-mapping/)

- NOAA:
  - National Weather Service: Turn Around don't Drown
  - [weather.gov/safety/flood-turn-around-dont-drown](http://weather.gov/safety/flood-turn-around-dont-drown)
  - Historical Hurricane Tracks [coast.noaa.gov/hurricanes/](http://coast.noaa.gov/hurricanes/)

***Additional information on this topic***

- US Housing and Urban Development (HUD) Rebuild by Design: “Resilient Bridgeport” [resilientbridgeport.com/](http://resilientbridgeport.com/)
- URS, June 2002 “Looking to the Future: Alternatives for Reducing Flood-Related Damage in Historic Communities Milton, PA” [phmc.pa.gov/Preservation/About/Documents/Looking-Future-Milton-study-2002.pdf](http://phmc.pa.gov/Preservation/About/Documents/Looking-Future-Milton-study-2002.pdf)
- Waggoner and Ball, “Greater New Orleans Urban Water Plan,” Greater New Orleans Regional Economic Development [livingwithwater.com/](http://livingwithwater.com/)

**Design for Flood Resilience Part II: Green Infrastructure/ Low Impact Development**

- Stroud Water Research Center [stroudcenter.org/research/](http://stroudcenter.org/research/)

**Achieving Community Buy-In for Disaster Risk Reduction: Win-Win Approaches**

- Freitag, B., Bolton, S., Westerlund, F., Clarke, J. 2009 “Floodplain Management: A New Approach for a New Era,” 2009, Island Press
- Ury, W., “The Power of a Positive No,” 2007, Bantam Press
- “Design for Flooding,” Watson, D., Adams, A., 2011, John Wiley and Sons

**Selecting and Implementing a Strategy for Addressing Disaster Risk Reduction**

N/A