



MAGIC Climate Resilience

*Planning and Preparing for Climate
Change in the MAGIC Subregion*

Source: David Mark, Maynard Life Outdoors

Working Group Meeting
October 25, 2016



AGENDA

- I. Welcome and introductions
- II. Feedback to Date
- III. Vulnerability Assessment
- IV. Adaptation Strategies
- V. Project Next Steps

Discussion Agreements

- Everyone has an opportunity to speak (Step Up/Step Back
- One person speaks at a time and everyone participates.
- Stay focused on the topic.
- There are no right or wrong answers.
- It is okay to agree or disagree with other's responses.
- It is everyone's responsibility, not just the facilitator's, to ensure every participant abides by the rules.

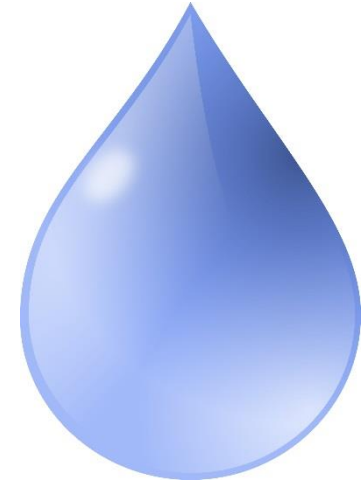
Feedback to Date

Overarching:

- Consider editorial, grammatical changes
- Streamline structure
- Several substantial contributions



Feedback to Date



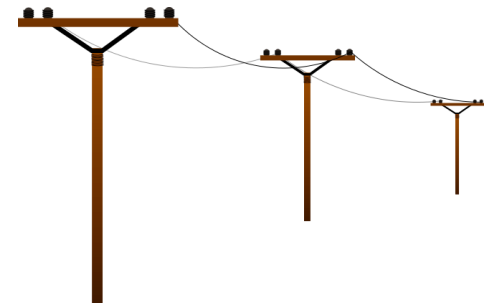
Vulnerability Assessment:

- Water Infrastructure:
 - Consensus on need to expand water section
 - + Major watersheds and watershed plans, streamflow monitoring, aging pipes, sewage systems
 - + impacts of drought, demands on water resources, high temperatures, bacterial issues
 - + need for estimating future riverine flooding to assess vulnerability

Feedback to Date

Vulnerability Assessment:

- Transportation:
 - Highly vulnerable, not low
 - Mentions of flooding in 2010 that disrupted transportation
- Energy:
 - Need to determine vulnerability of energy infrastructure
 - + generators, transmissions, electric lines, poles, gas lines, fuel oil trucks
 - + impacts of ice storms on energy infrastructure



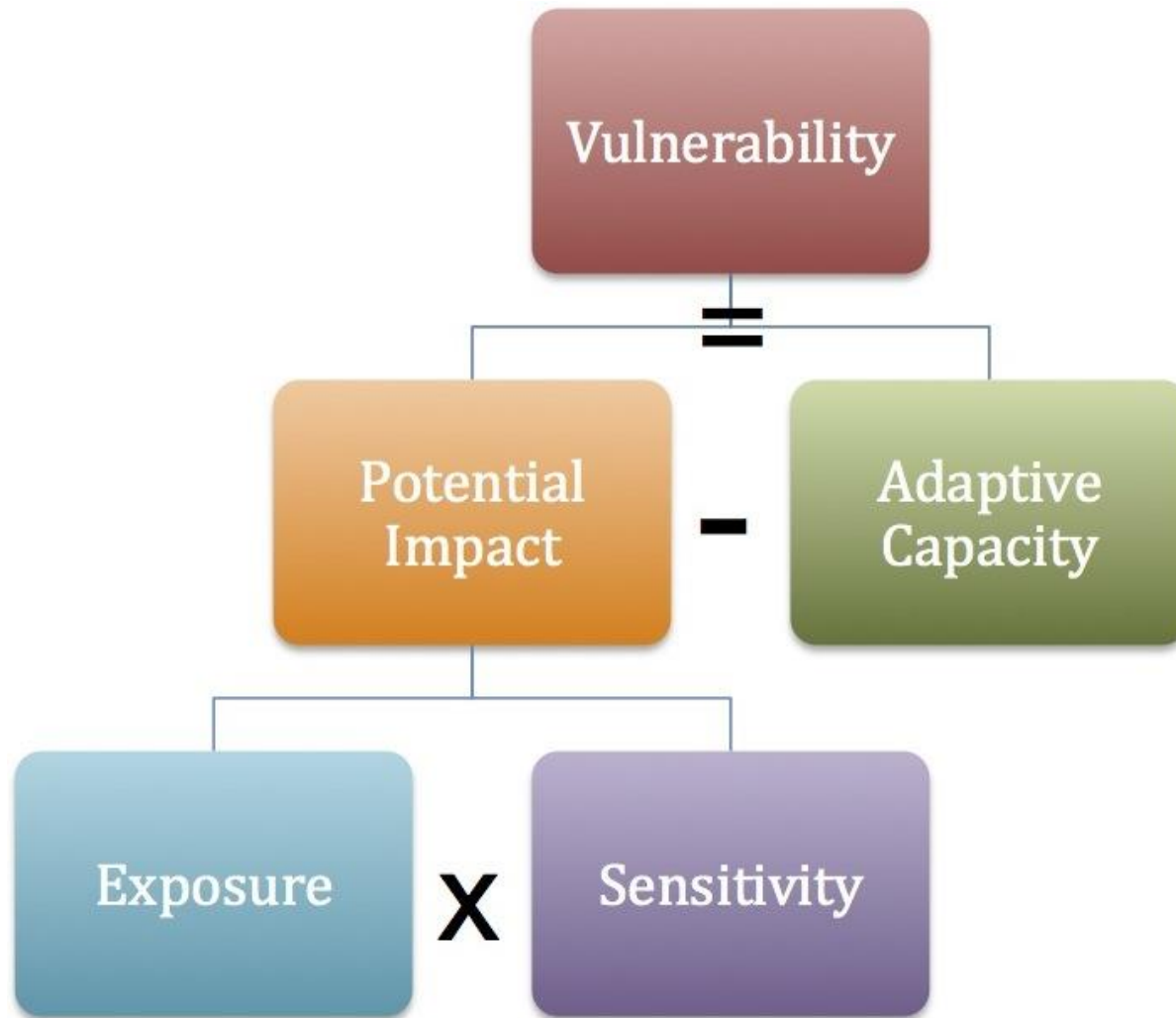
Feedback to Date

Adaptation and Mitigation
Strategies:

- Let's identify a few large strategies
- Need to build support and educate municipalities



VA approach



Projections

Data

Evidence

Working
Group

Subregional
Survey

Summit

System, Sector, or Population	Sensitivity	Adaptive Capacity	Vulnerability Assessment
Terrestrial Habitat	Temperature, Invasive Species	OS Protection and Preservation	Moderate (High – Tree and smaller animal species)
Aquatic	Changes in Temperature and Precipitation	Conservation and Water Resource Protection	Moderate (High – Vernal pools and colder fish species)
Water Infrastructure	Changes in Precipitation and Drought, Local Systems	LID, Water Reuse, Conservation	High
Land Use	Changes in Flooding and Temperature	Regulatory Measures, Energy Efficiency	TBD (‘Moderate’, Flooding analysis to come)

System, Sector, or Population	Sensitivity	Adaptive Capacity	Vulnerability Assessment
Transportation Infrastructure	Flooding, Heat Island	Local transit, Active Transportation	Low (Mod/High – local roadways)
Energy Infrastructure	Changes in Temperature, Flooding	Energy Efficiency, Clean Energy	TBD
Health and Welfare	Older population, Those with Poor Health	High SES, Current Health Status, LHD	High
Outdoor Workers	Changes in Temperature, Vector-Borne Diseases	Social Capital, Existing Workplace Safety Programs	High

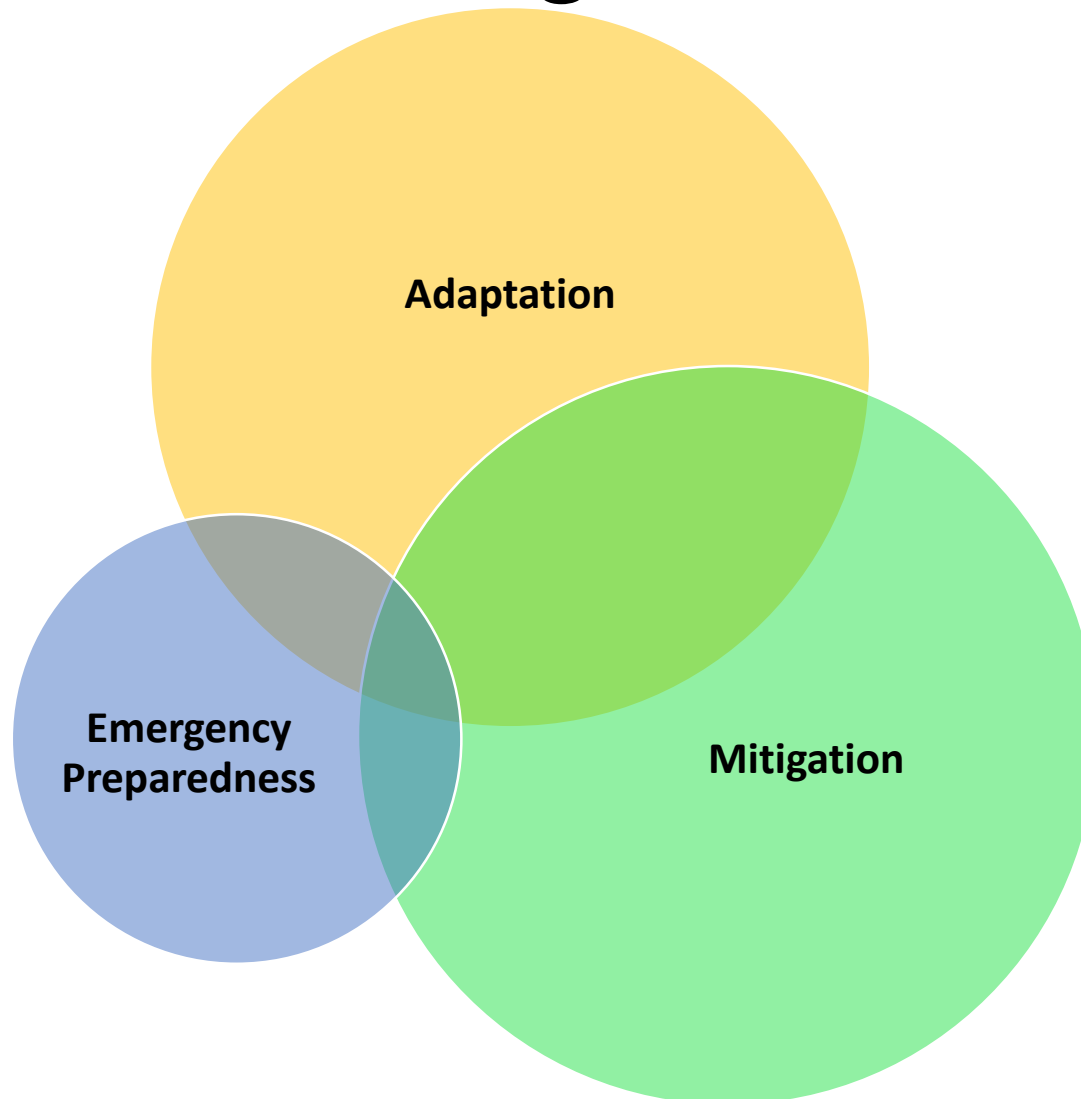
System, Sector, or Population	Sensitivity	Adaptive Capacity	Vulnerability Assessment
Health Care	Demand on Facilities	LHD, Mosquito control, Hospital	Moderate
Agriculture	Changes in Crop Conditions, Invasive Species	Local support, Farm Ops Diversification	Moderate
Tourism	Changes in Landscape, Natural Systems	Local support, Diversity in Assets	Moderate
Local Government	---	Planning, Local Committees, Emergency Prep, Community Orgs	TBD

Vulnerability Assessment

	Sensitivity: Low→ High				
	1	2	3	4	5
Adaptive Capacity Low ↓ High	1				
	2		Transportation	Outdoor Workers Health and Welfare	
	3		Healthcare Tourism	Terrestrial Aquatic Water Infra Agriculture	
	4				
	5				

Still to be determined: Land Use, Energy Infrastructure, Local Government // Not yet included: Wastewater Infrastructure

Initial List of Mitigation and Adaptation Strategies



Initial List of Mitigation and Adaptation Strategies

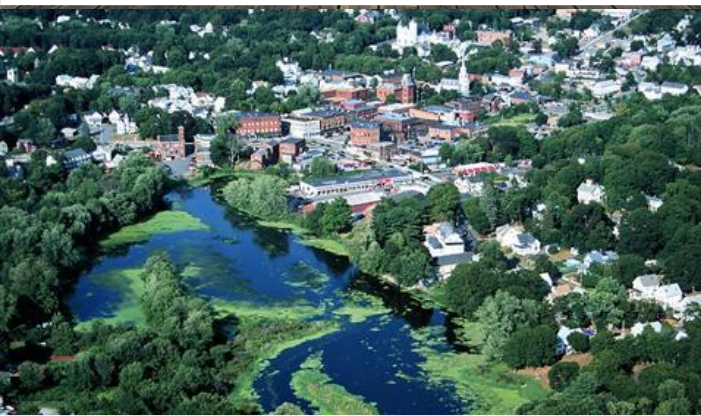
- Operationalize the Tracking and Application of Climate Change Data
- Protect Natural Resources and Maximize Use of Ecosystem Services
- Increase Use of Clean Energy and Green Building Measures
- Enforce and Enhance Regulatory Measures Affecting the Built Environment

Initial List of Mitigation and Adaptation Strategies

- Implement Climate Responsive Land Use Policies and Regulations
- Safeguard Health and Human Resources
- Prepare Local Government and the Local Economy

Next Steps

- Draft plan will be updated to develop Plan Version 1.0
- Continue into Phase 2
 - Enhance plan
 - Limited additional research
 - Riverine Flooding Analysis
 - Increase Engagement
 - Conversations with sector representatives not present
 - Activation of a Network
 - Community Summit
 - Take Action
 - Identify and achieve short term changes



MAGIC Climate Resilience Plan

Thank You!

Sources: John Boyd, OARS; Town of Hudson website; Cucurbit Farm, Thomas Cooper