

COMMUNITY ENGAGEMENT

Strategies to engage citizens, businesses and vulnerable populations in achieving safe, sustainable, and prospering communities.

Donald Watson, FAIA



PHOTO: D. Watson, US HUD Rebuild By Design *Resilient Bridgeport* <http://resilientbridgeport.com>

COMMUNITY ENGAGEMENT

Strategies to engage citizens, businesses and vulnerable populations in achieving safe, sustainable, and prospering communities.

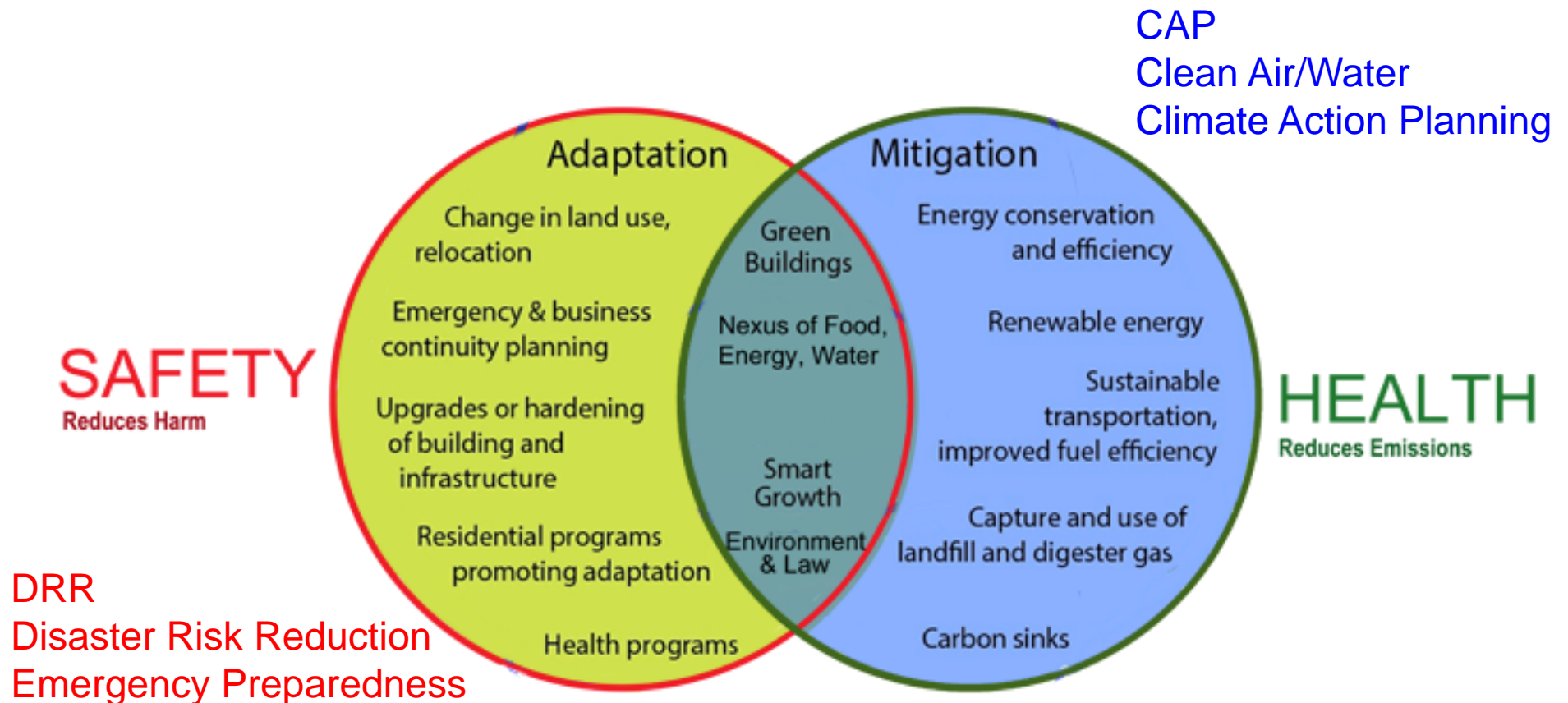


What are the best ways to engage plans & actions to address natural hazard and climate/weather risks?

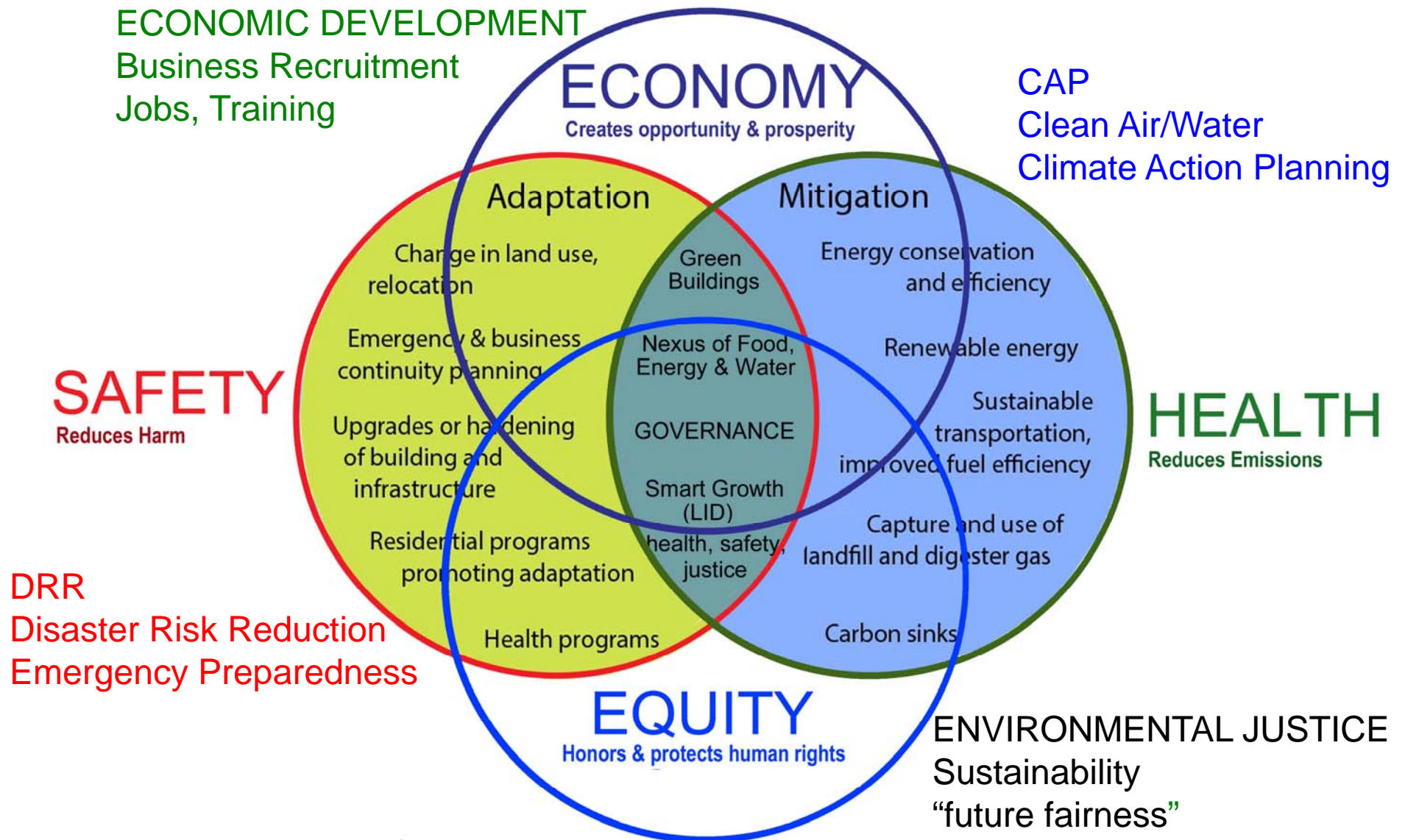
Are there advantages if PoCDs & economic development plans are integrated w/ mitigation/adaptation plans?

Who can best take the lead: municipalities, businesses, non-profit organizations, innovative partnerships?

WHAT IS THE OBJECTIVE?



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What's in it for me & mine?

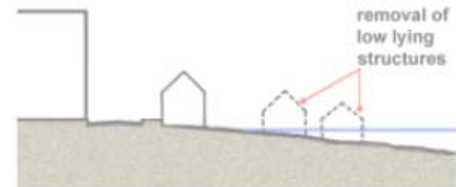
UPLAND

LOWLAND

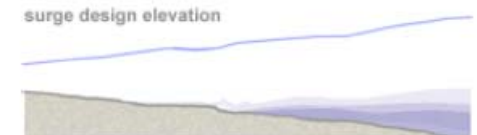
COAST



Higher density development

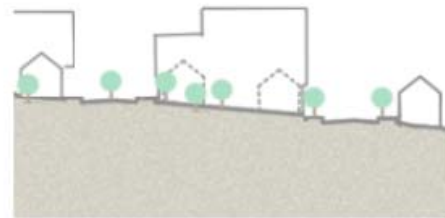


Retreat to higher ground

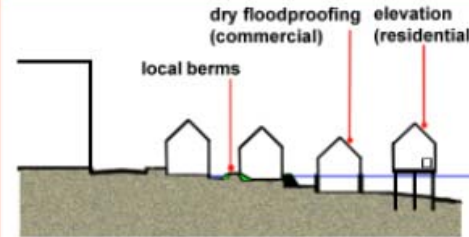


Rising seas - changing shoreline

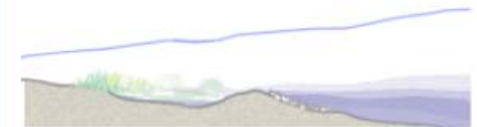
Property value protection



Urban tree canopy
green roofs

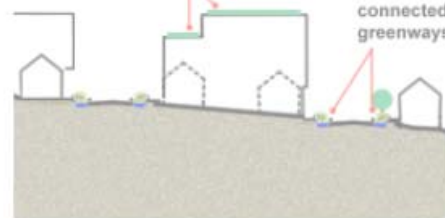


Floodproofing + local berms



Shoreline stabilization
+ marsh creation

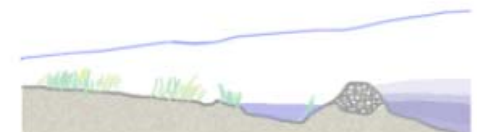
INCREASED PROPERTY PROTECTION



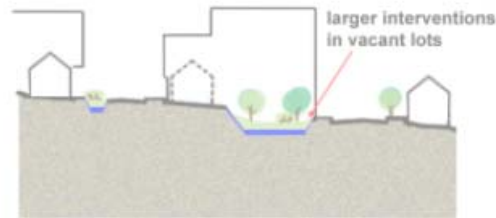
Green infrastructure



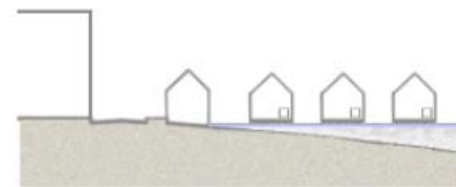
Raised structures



Offshore reef, wave attenuation
+ habitat creation



Detention / retention basins



Raised streets & structures



Berm/ wall + overtopping zone

What's in it for our families & businesses?

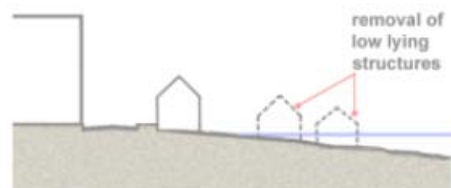
UPLAND

LOWLAND

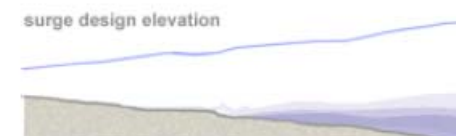
COAST



Higher density development



Retreat to higher ground

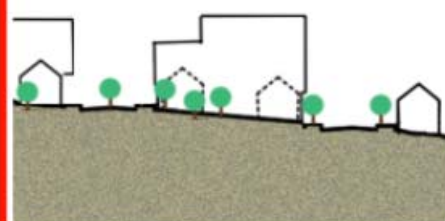


Rising seas - changing shoreline

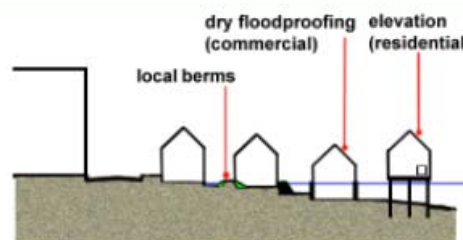
Business continuity

Property value protection

NHMP / regulatory



Urban tree canopy
green roofs

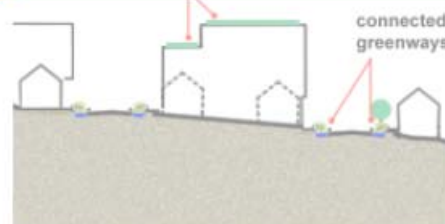


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Shoreline stabilization
+ marsh creation

**INCREASED COMMUNITY PROTECTION
DECREASED RISK INSURANCE (case by case)**



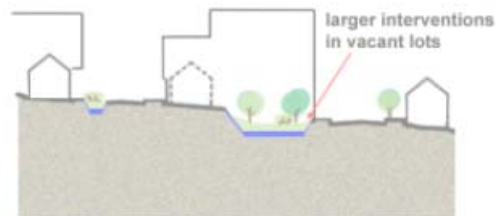
Green infrastructure



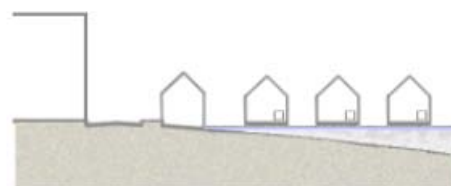
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Raised streets & structures



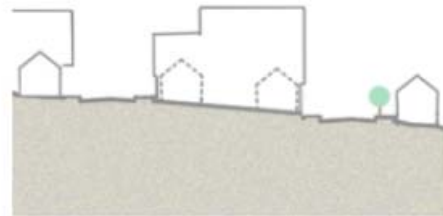
Berm/ wall + overtopping zone

What's in it for our whole community?

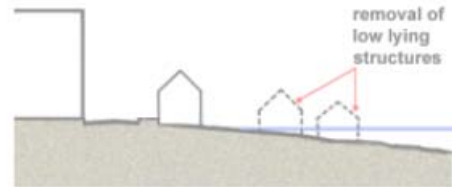
UPLAND

LOWLAND

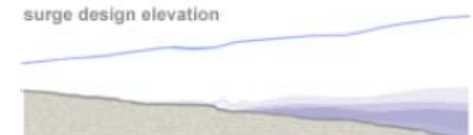
COAST



Higher density development



Retreat to higher ground



Rising seas - changing shoreline

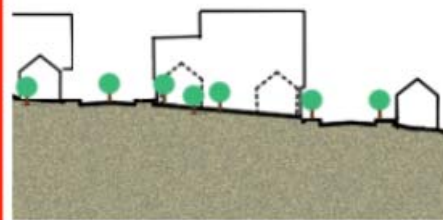
Economic competition

Business continuity

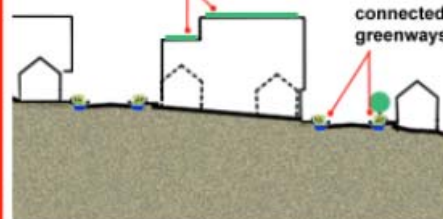
Property value protection

NHMP / regulatory

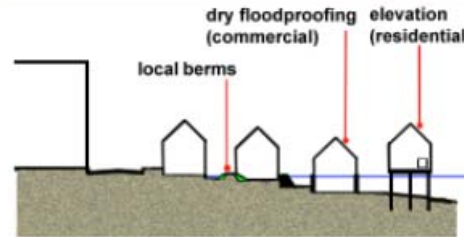
NFIP CRS incentives



Urban tree canopy
green roofs



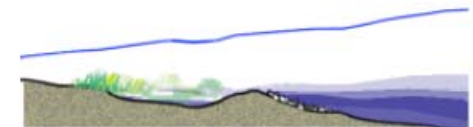
Green infrastructure



Floodproofing + local berms



Raised structures

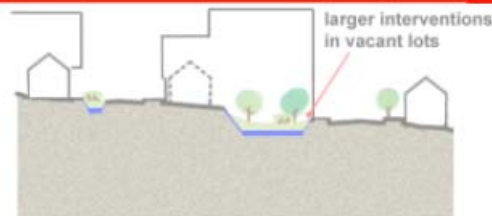


Shoreline stabilization
+ marsh creation



Offshore reef, wave attenuation
+ habitat creation

**INCREASED COMMUNITY PROTECTION
DECREASED COMMUNITY INSURANCE (CRS)**



Detention / retention basins



Raised streets & structures



Berm/ wall + overtopping zone

What's in it for our city, state, & region?

UPLAND

LOWLAND

COAST



Economic competition

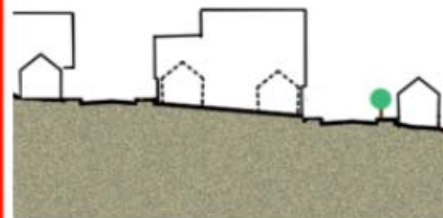
Business continuity

Property value protection

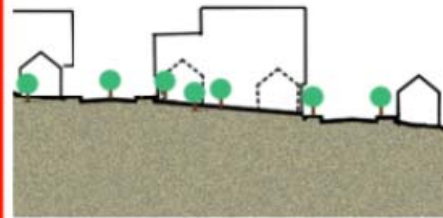
NHMP / regulatory

NFIP CRS incentives

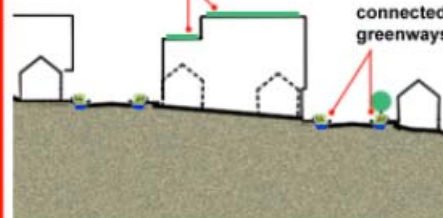
Community HSW (equity)



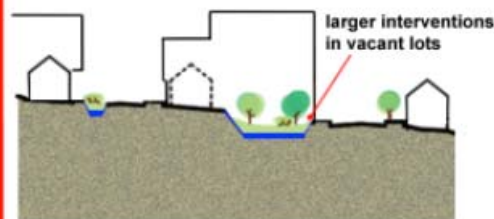
Higher density development



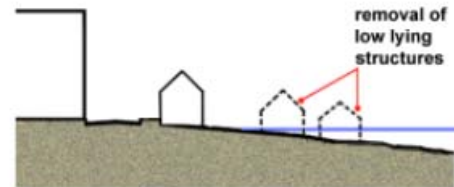
Urban tree canopy
green roofs



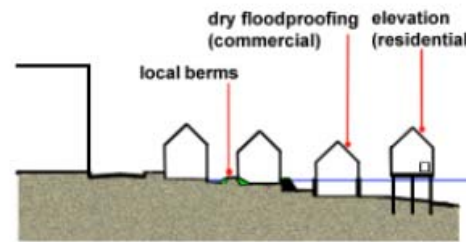
Green infrastructure



Detention / retention basins



Retreat to higher ground



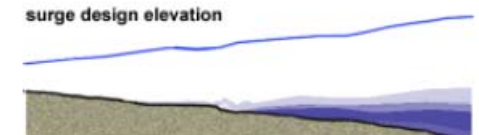
Floodproofing + local berms



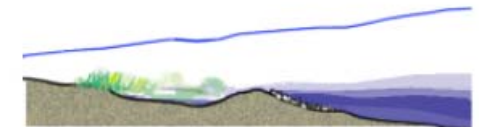
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Raised streets & structures



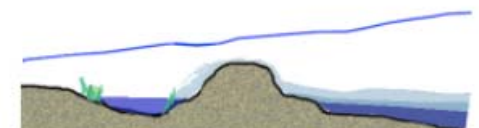
Rising seas - changing shoreline



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+ marsh creation



Offshore reef, wave attenuation
+ habitat creation



Berm/ wall + overtopping zone

FULL SPECTRUM COMMUNITY RESILIENCE

HOW TO CONVENE THE CONVERSATION



Study Groups



Hackathons

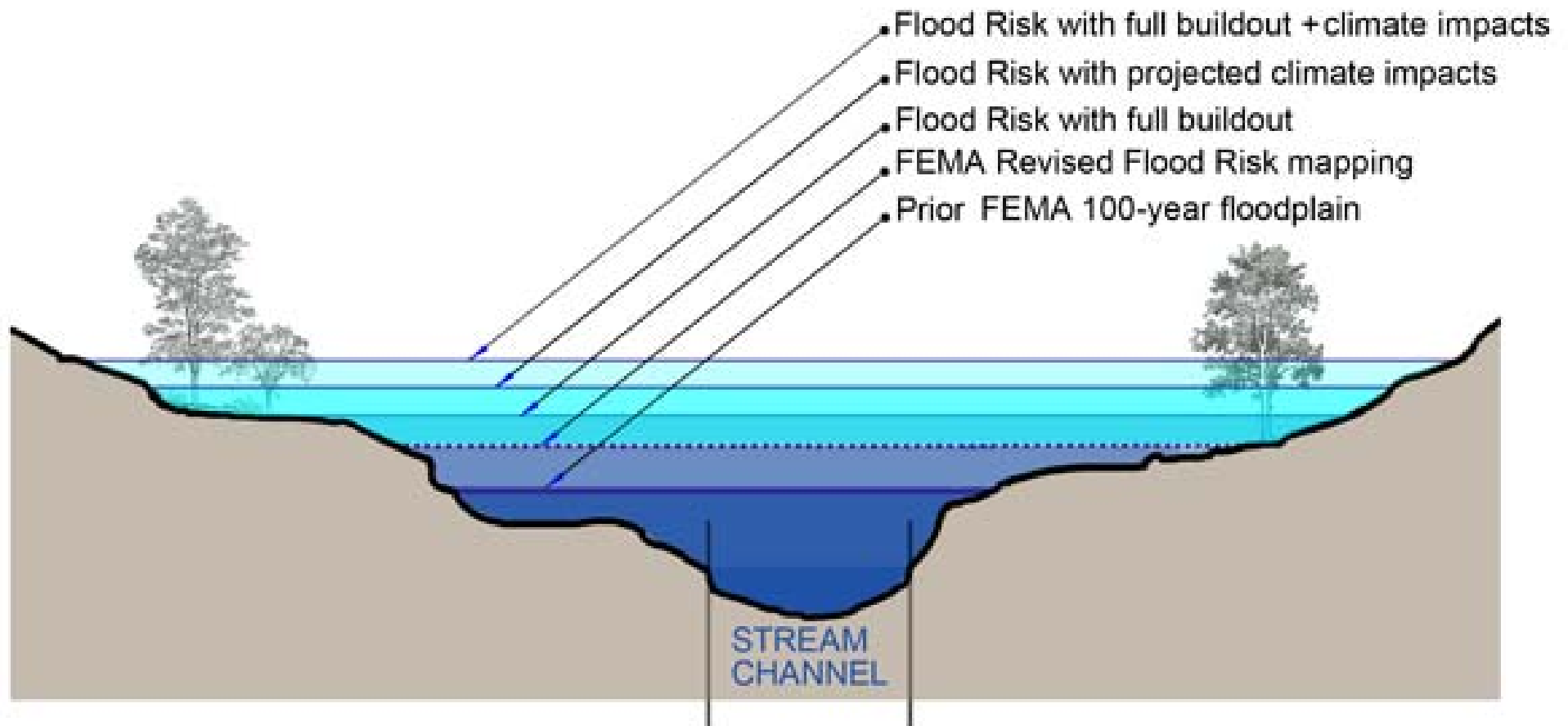
FEMA NHMP updates



Table Top Drills ("weakest link")



“FUTURE PROBABLE CONDITIONS”









after Cameron Wake, *et al.* "Mapping and Legal Implications of Future Flooding due Changes in Climate..."
URL: http://www.neiwpcc.org/npsconferenceold/12-presentations/Wake_ImpactFutureFlooding.pdf


Tulsa's PUBLIC PARTICIPATION PLAN

City of Tulsa
Program for
Public Information

December 2014



R.D. Flanagan & Associates
Planning Consultants



Tulsa Partners, Inc.
Safe • Sustainable • Community



City of Tulsa PPI: tulsapartners.org/tpi/wp-content/uploads/2014
RC 100 Report: tulsapartners.org/.../11/100RC-Tulsa-Findings

Tulsa's PUBLIC PARTICIPATION PLAN

CSI Credits

Messages and Desired Outcomes

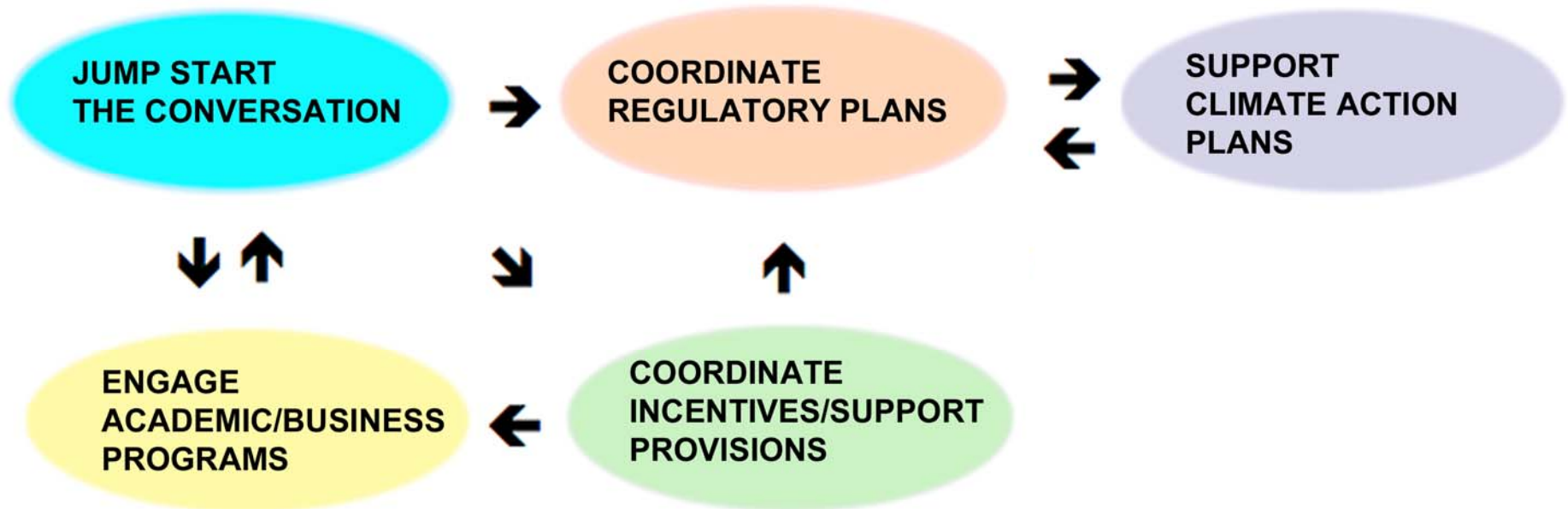
| Message | Desired Outcome | CRS Priority Topics (for comparison only) |
|---|--|--|
| A. Know your risk of flooding | A. More requests for flood information and/or elevation certificates | Know your flood hazard |
| B. What are your options if you live in a repetitive loss property? | B. More requests for information on options for repetitive loss properties | |
| C. You need flood insurance | C. Increase in the number of flood insurance policies | Insure your property for your flood hazard |
| D. Turn around, don't drown | D. Fewer deaths due to drowning, or reports of water rescues or police ticketing drivers who ignore barricades | Protect people from the hazard |
| E. You can protect your property from flooding | E. More requests for information on flood-resistant construction and rehabilitation | Protect your property from the hazard |
| F. Get a building permit when constructing in flood-prone areas | F. Fewer floodplain violations | Build responsibly |
| G. Storm drains are for rain | G. Measured increase in water quality in watershed | Protect natural floodplain functions |
| H. LID improves water quality | H. More requests for information on low impact development or increase in related building permits | <i>PPI Additional Topic:</i> Low Impact Development |

NOTABLE CONNECTICUT EXEMPLARS

Listening Sessions
Visioning Charrettes

Municipal plans (PoCD)
FEMA NHMP updates
Emergency Operations Plans

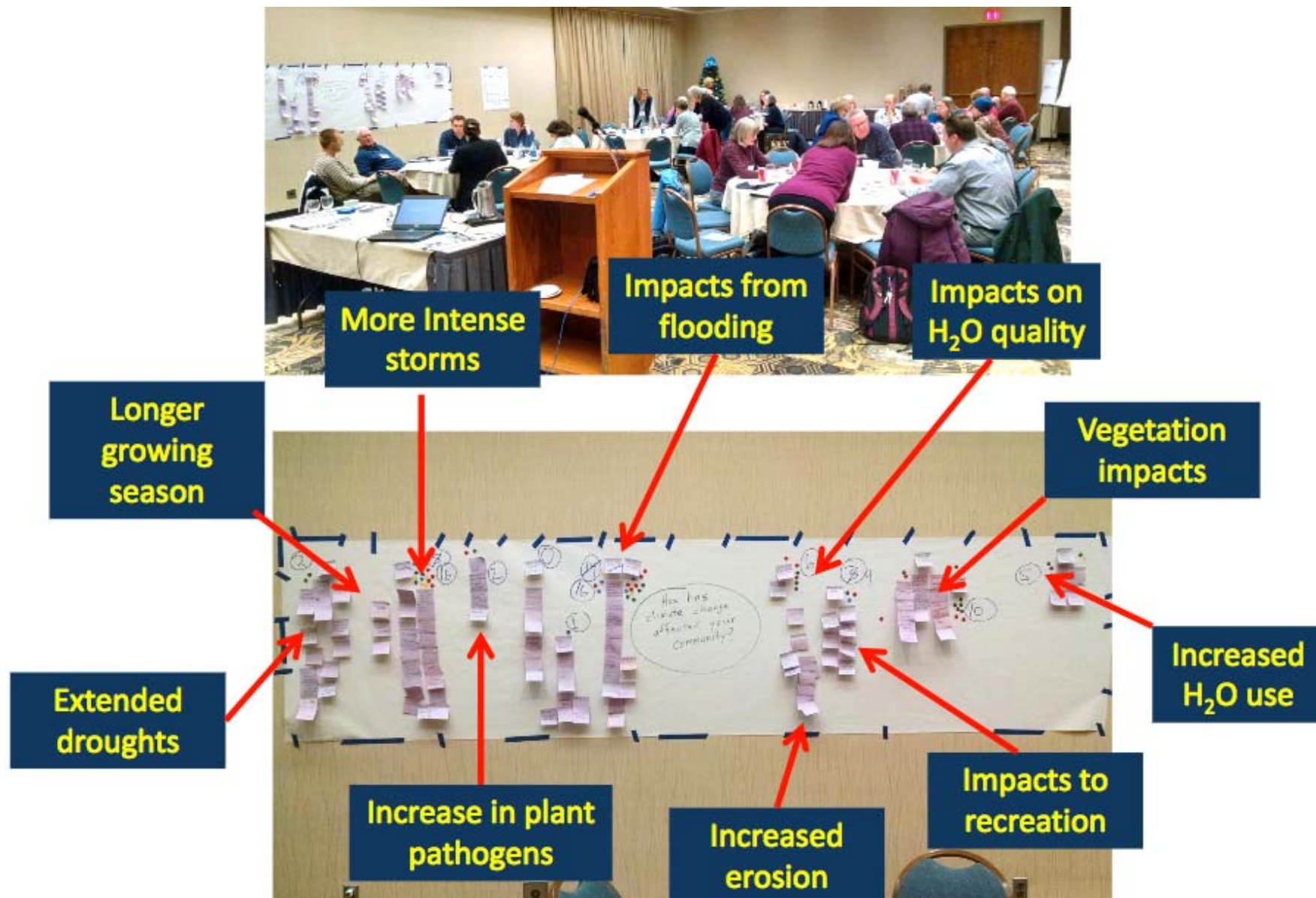
Science Advisories (CIRCA)
Resiliency Demonstrations
Climate Action Planning



Conferences
Corporate Risk Management
Executive Education Programs

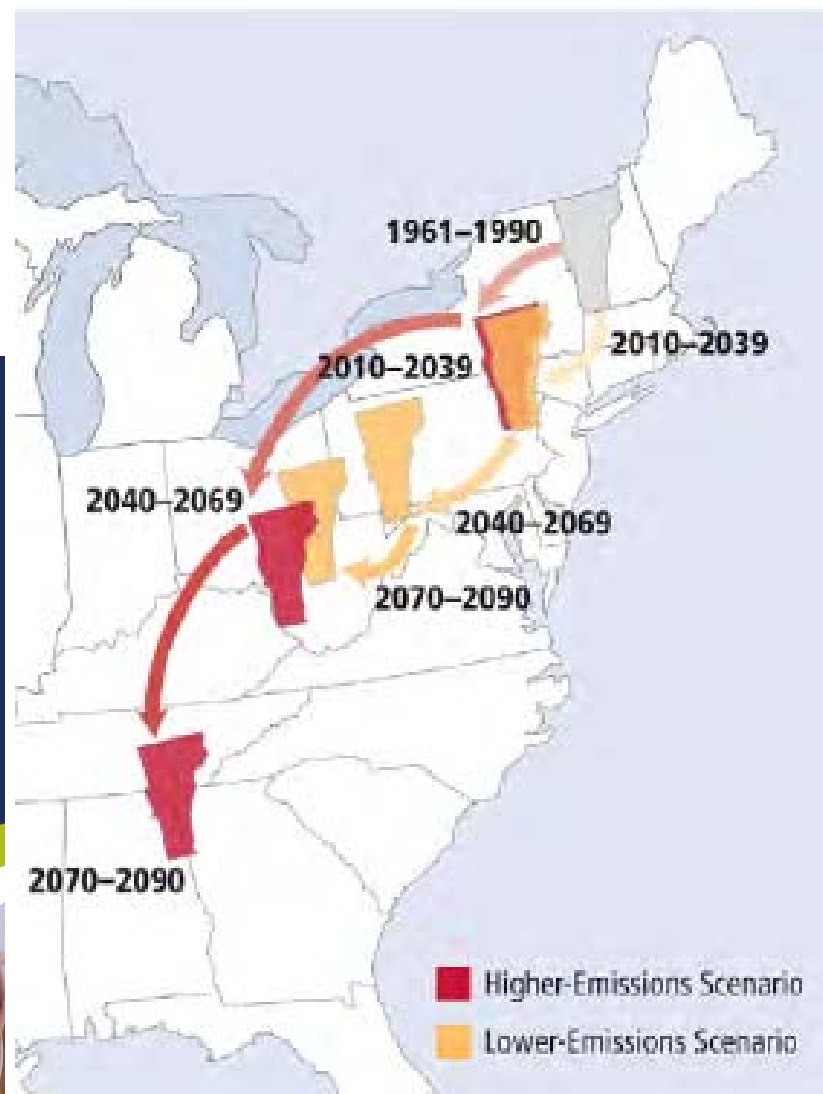
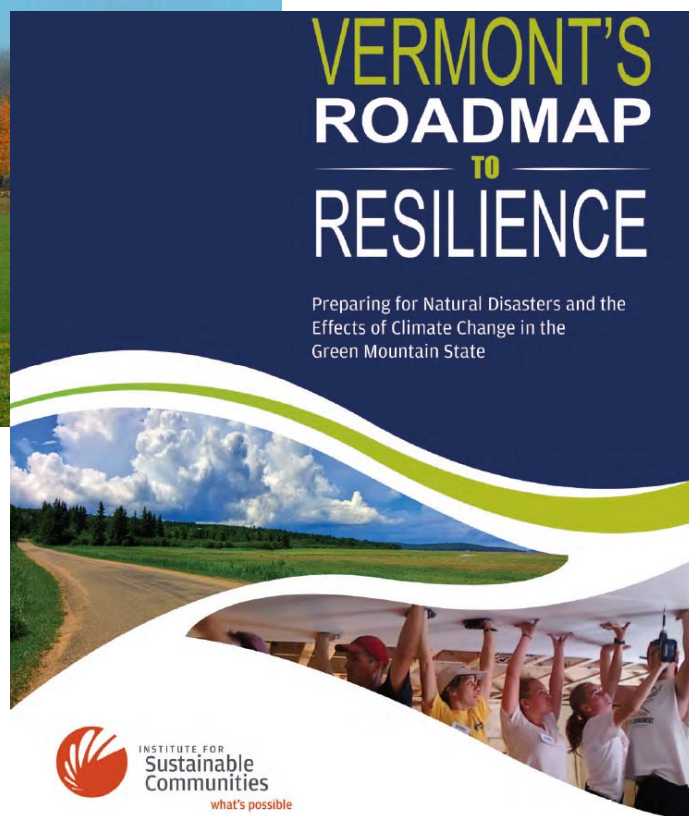
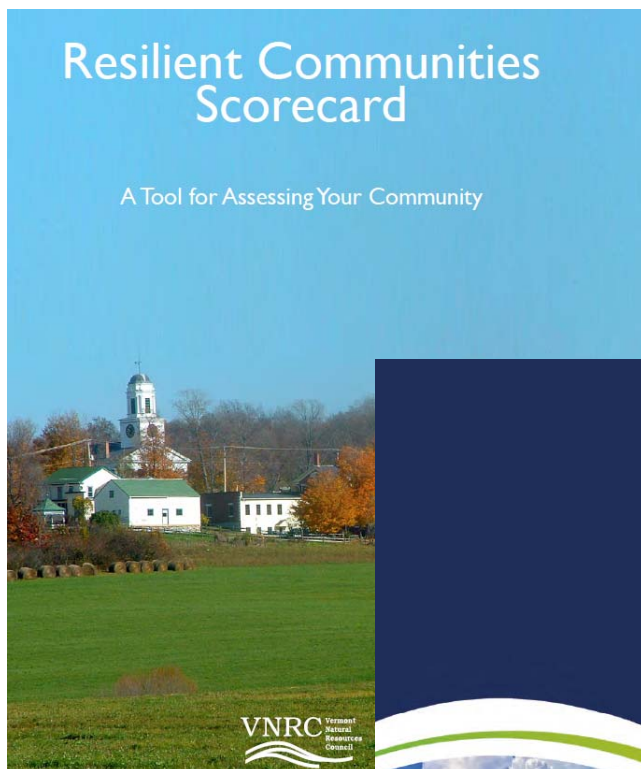
CIRCA programs
Sustainable CT

How Does Climate Change Affect Our Community?



Antioch University New England Center for Climate Preparedness and Community Resilience
Michael H. Simpson www.communityresilience-center.org/resources

SHARED VISION & ROAD MAP



Vermont's Roadmap to Resilience – ISC (2013) www.adaptationclearinghouse.org/resources/vermont-s

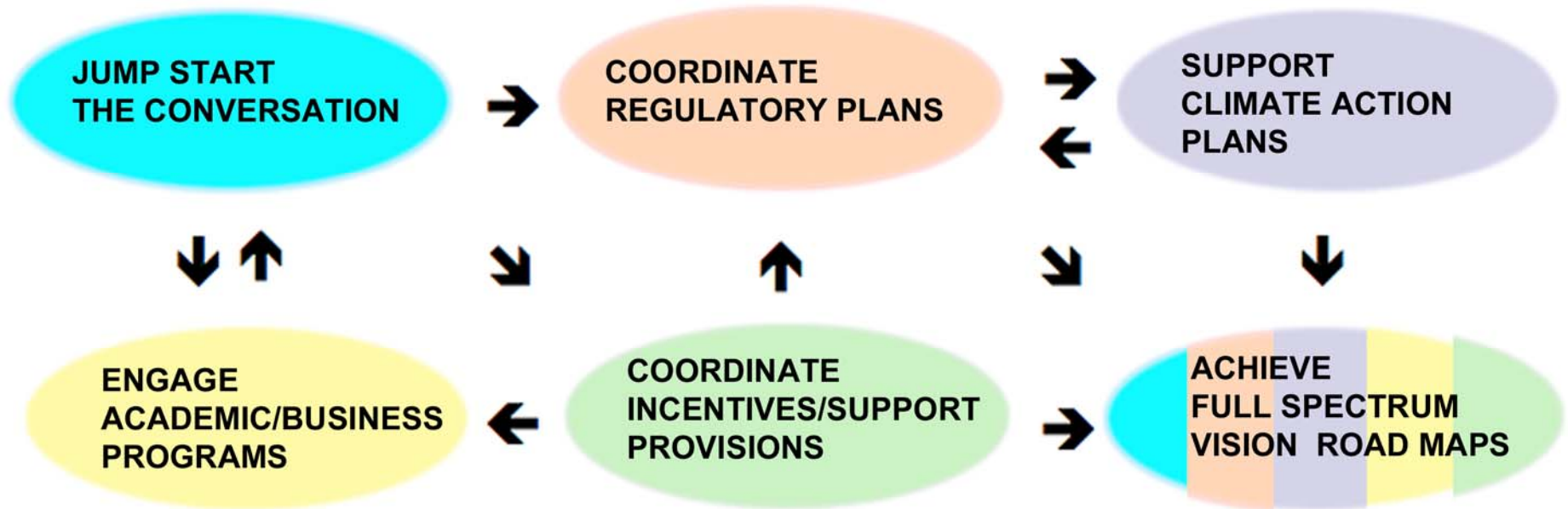
Resilient Communities Scorecard - VNRC (2013) vnrc.org/.../community.../vermont-smart-growth-score-card

NOTABLE NATIONAL EXEMPLARS

Listening Sessions
Visioning Charrettes
Orton Heart&Soul

Municipal plans (PoCD)
FEMA NHMP updates
Resiliency Scorecard (TAMU)

Science Advisories (CIRCA)
Resiliency Demonstrations
Climaid (NYS)



Science Projects
Executive Education Program
MD Small Business Climate Plans

CIRCA programs
Sustainable CT
Sustainable Jersey

Abt / KRESGE roadmap

JUMP START
THE CONVERSATION

ORTON FOUNDATION

Community Heart & Soul Guide

REVISED
2nd EDITION

CommunityHeart&Soul
— Guided by What Matters Most —



Community Heart&Soul begins with a partnership between local government and residents in a process....of engagement about what matters most—emotionally—to residents.”

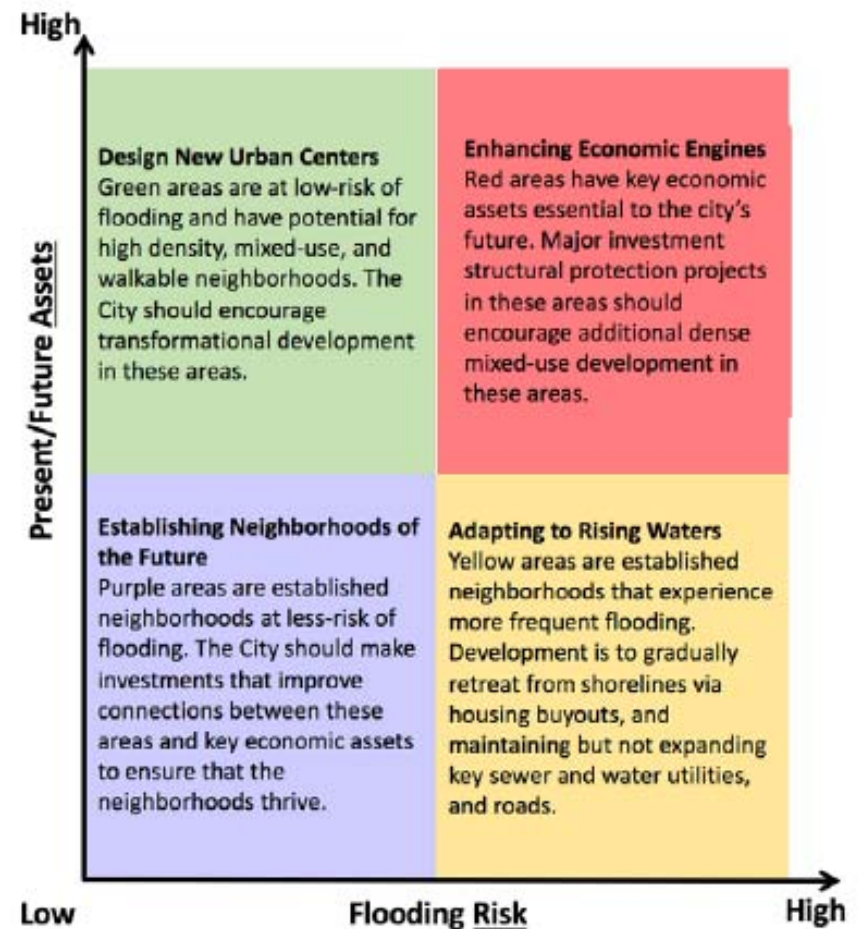
Lyman Orton

- 1 Lay the groundwork**
- 2 Explore your community**
- 3 Make decisions**
- 4 Take Action**

COORDINATE REGULATORY PLANS

RESILIENCE SCOREDCARD (TAMU)

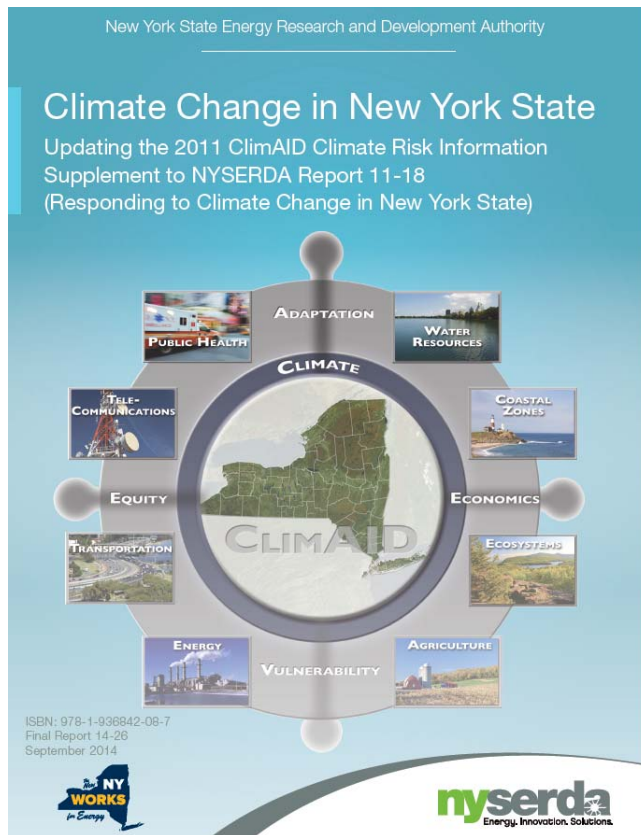
Norfolk Virginia



Burke, Phil et al. *Local Planning Networks and Neighborhood Vulnerability Indicators* (2017)
coastalresiliencecenter.unc.edu/crc-projects/phil-berke

**SUPPORT
CLIMATE ACTION
PLANS**

ClimAID (NYS)



Middle-Range Projected Sea Level Rise in New York City and Coastal Long Island

Incremental rise above 2000–2004 average baseline level



2100: 21–50 inches

2080s: 18–39 inches

2050s: 11–21 inches

2020s: 4–8 inches

Supplement – Updated Climate Projections Report (2014); Also Responding to Climate Change in New York State Full Technical Report (2011) www.nyserda.ny.gov/climaid

ClimAID (NYS)

Projection of Mean Annual Changes Air Temperature and Precipitation for Region 4 (New York City Long Island)

Data indicates middle range (25th to 75th percentile except as noted)

| | Baseline 1971-2000 | 2020s | 2050s | 2080s | 2100 |
|----------------------------|-------------------------------|-----------------------|-----------------------|---------------------|---------------------|
| Air temperature | 54.6° F | + 2.0 – 2.9° F | + 4.1 – 5.7° F | +5.3-8.8° F | +12.1° F |
| Precipitation | 49.7"/annum | - 1 + 8% | + 4 + 11 % | +5 to + 13% | -1 +19% |
| SLR (Montauk) | 0 2000-2004 | 4 to 8 in. | 11 to 21 in. | 18 to 39 in. | 21 to 47 in. |
| SLR HighRange (Montauk) | 0 2000-2004 | 10 in. | 30 in. | 58 in. | 72 in. |

BUSINESS FRAMEWORK (MD)

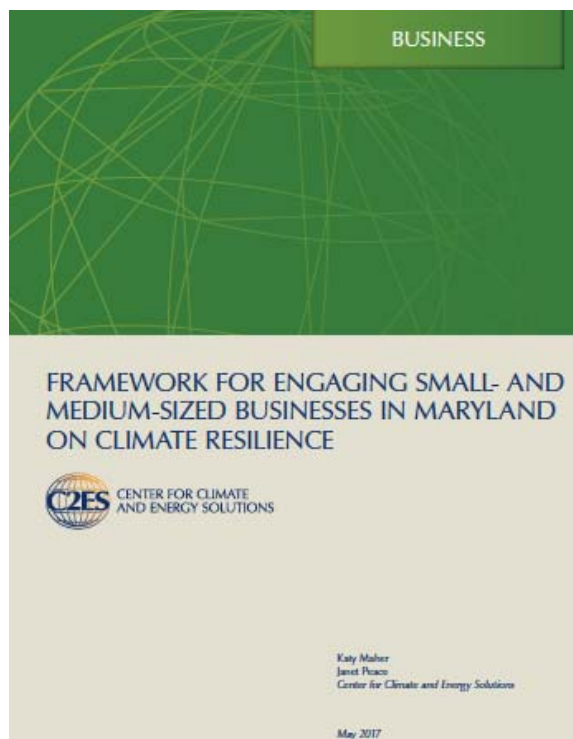


FIGURE 2: Types of Impacts Experienced by Businesses from Weather Events in Past Five Years

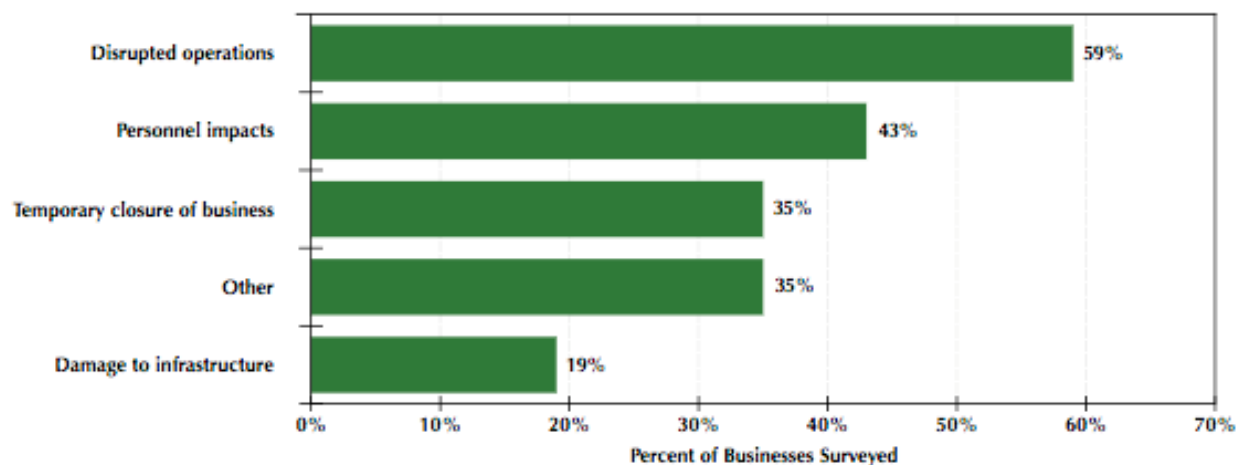
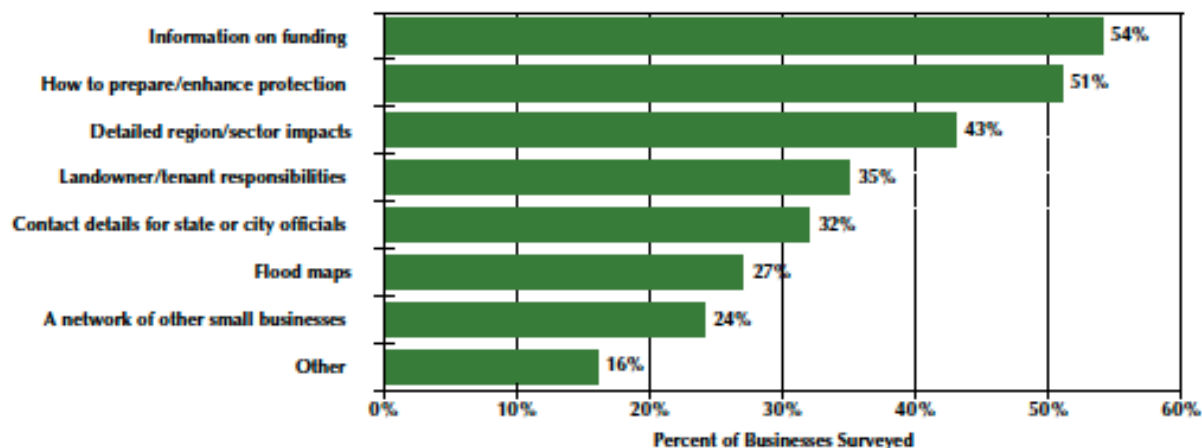


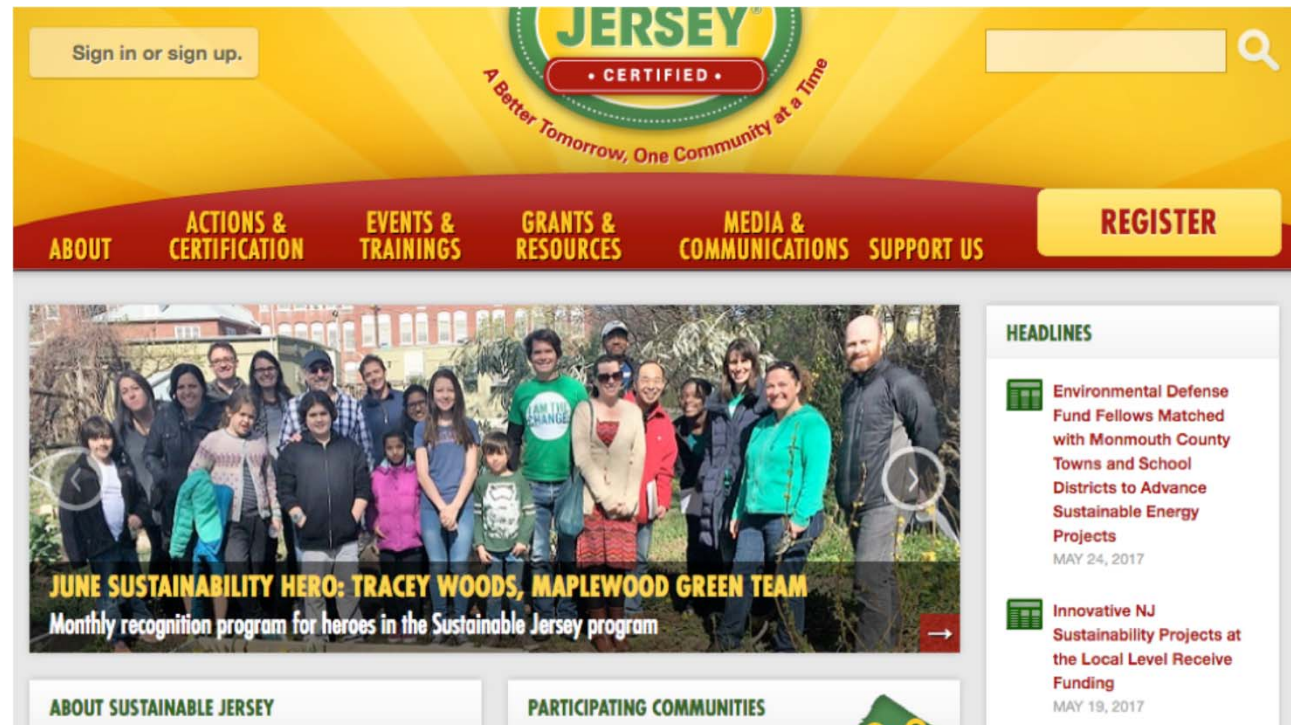
FIGURE 6: Types of Resources Needed by Businesses Surveyed in Order to Address Extreme Weather and Climate Risks



Framework for Engaging Small- and Medium-Sized Business in Maryland on Climate Resilience (2017) www.c2es.org/publications/framework-engaging.

COORDINATE
INCENTIVES/SUPPORT
PROVISIONS

SUSTAINABLE JERSEY



Municipal resilience is the ability of a community to adapt and thrive in the face of extreme events and stresses. Municipal resilience is achieved by anticipating risk, planning to limit impacts, and implementing adaptation strategies that integrate all community systems – civic, environmental, social and economic – to support recovery and growth.



Abt / KRESGE FOUNDATION

Climate Adaptation Practices



AUTHORS:
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Charles Herrick
Megan Stutz
Megan O'Grady
Alexa St. Juliana
Katharine Hostetler
Lorne Gengile

THE KRESGE FOUNDATION



Comprehensive, climate-change-informed planning processes, as seen in Chula Vista, California

Mainstreaming climate considerations into existing decision-making processes, as seen in Seattle, Washington

Neighborhood-scale capacity-building efforts, as seen in Cleveland, Ohio.

Aggressive exposure-reduction policies, as seen in Tulsa, Oklahoma

Creative use of existing regulatory powers, as seen in Boston, Massachusetts

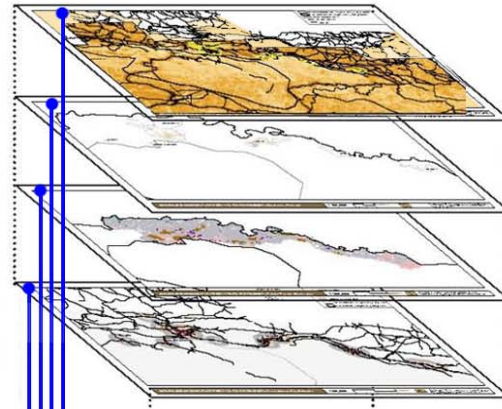
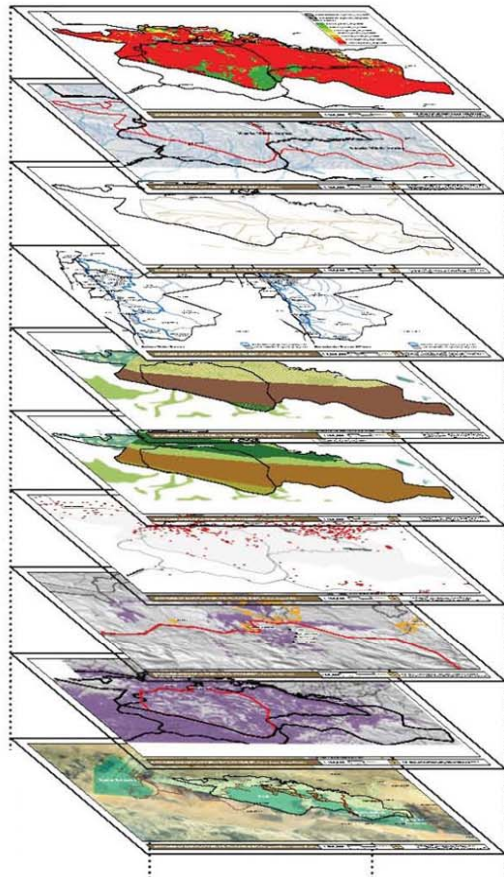
Systematic monitoring and evaluation processes, as seen in the Southwest Crown, Montana



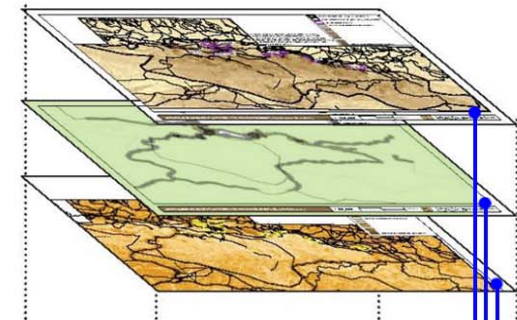
Abt / Kresge (2016) Climate Adaptation: State of Practice in U.S. Communities
kresge.org/sites/default/files/library/climate-adaptation

INTEGRATED PLANNING

MASTER PLAN + HAZARD MITIGATION = FULL-SPECTRUM PLANNING



storm hazard
environmental risks
emergency refuge/evacuation
temporary services / staging

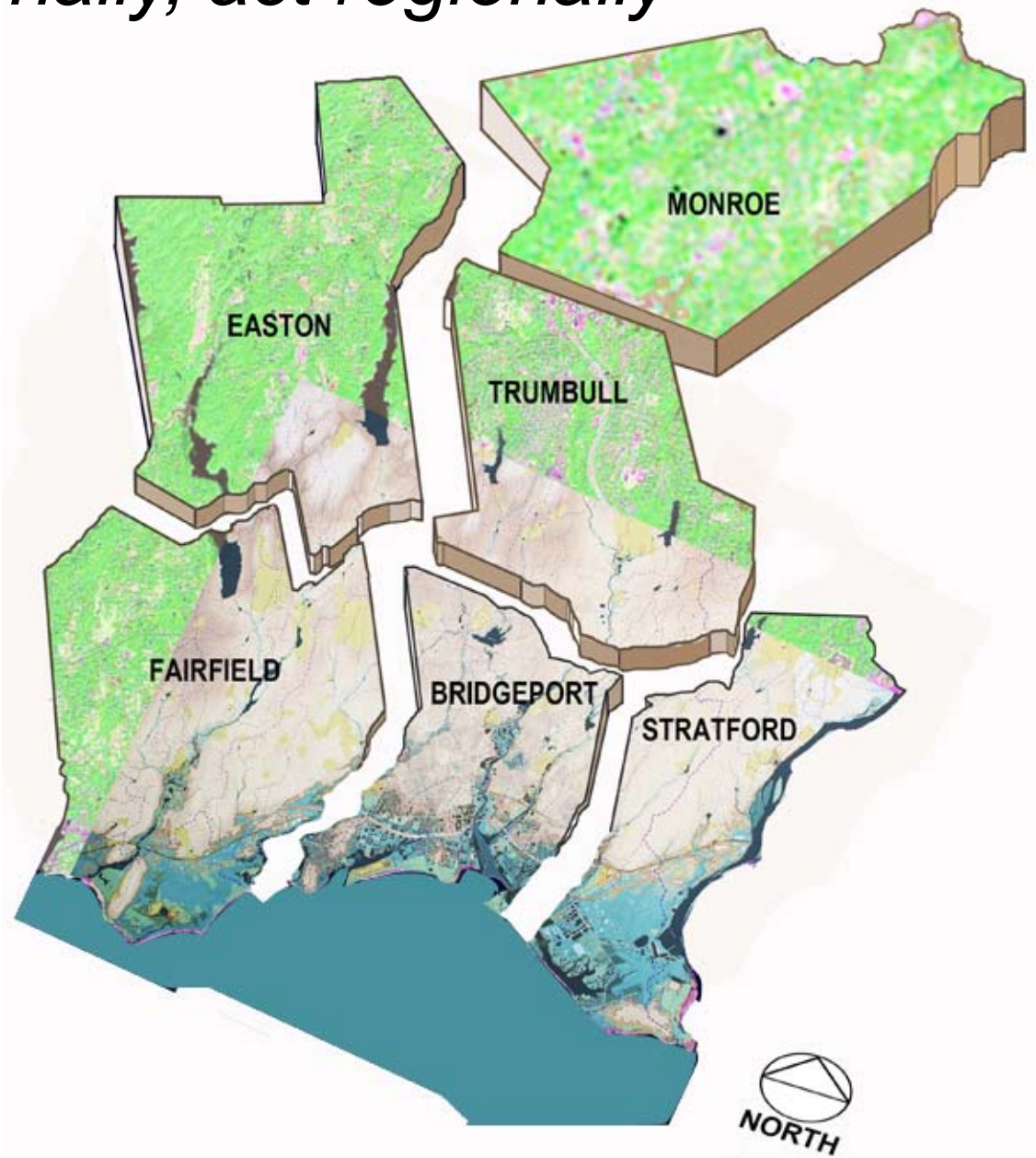
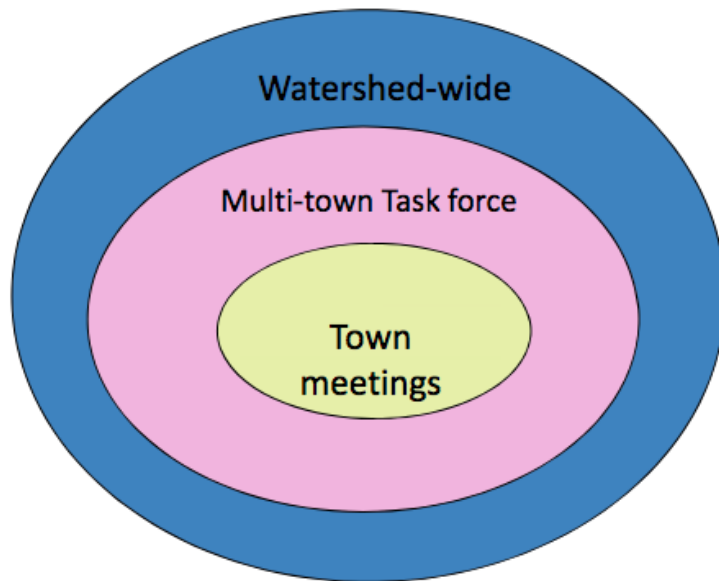


master plan
climate action plan
hazard mitigation plan

continuous
dry-run
& updates

ONE PLAN

Think regionally, act regionally



MORE RESOURCES



**peer organizations
international resources
job listings & internships
grants & funding**



Donald Watson EarthRise001@SB.global.net