

*Prepared for
the Vermont House Committee on Energy & Technology*



Thoughts on HB 688 and Resilience Ready Communities

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Institute for Sustainable Development

- ▶ 501(c)3 – founded 15 years ago in North Carolina

▶ ACTION TANK

- ▶ Research
- ▶ Technical assistance
- ▶ Capacity building
- ▶ Economic analysis
- ▶ Planning
- ▶ Training

▶ EVENTS

- ▶ Long-term recovery and resiliency national calls
- ▶ Economic recovery & resiliency workshops

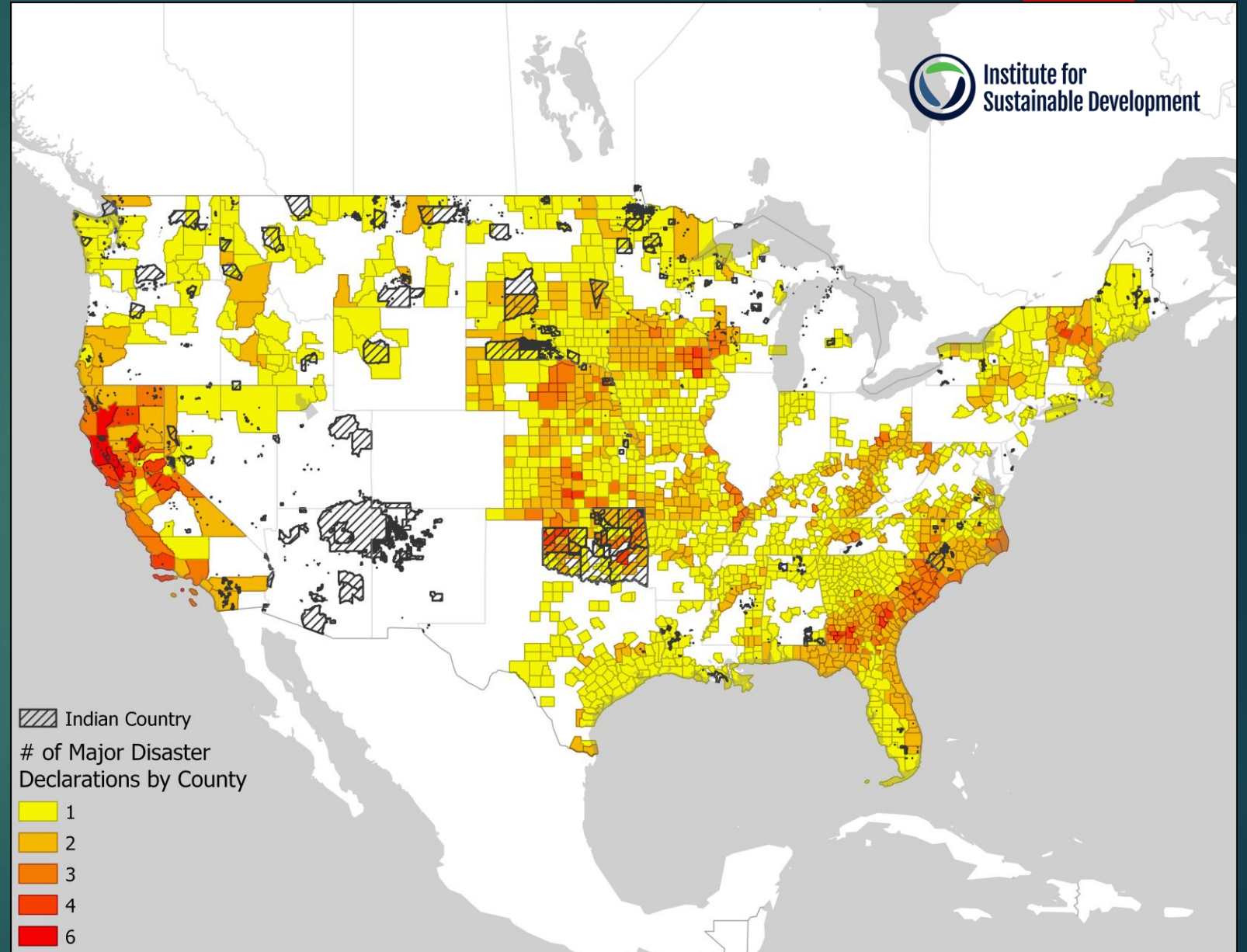
▶ DISASTER SUPPORT

- ▶ Kilauea Volcano & Hurricane Lane
- ▶ Hurricane Michael
- ▶ California's resiliency program
- ▶ Maryland & National Capital Region
- ▶ 2017-2018: Harvey, Irma, Maria, Florence, Michael



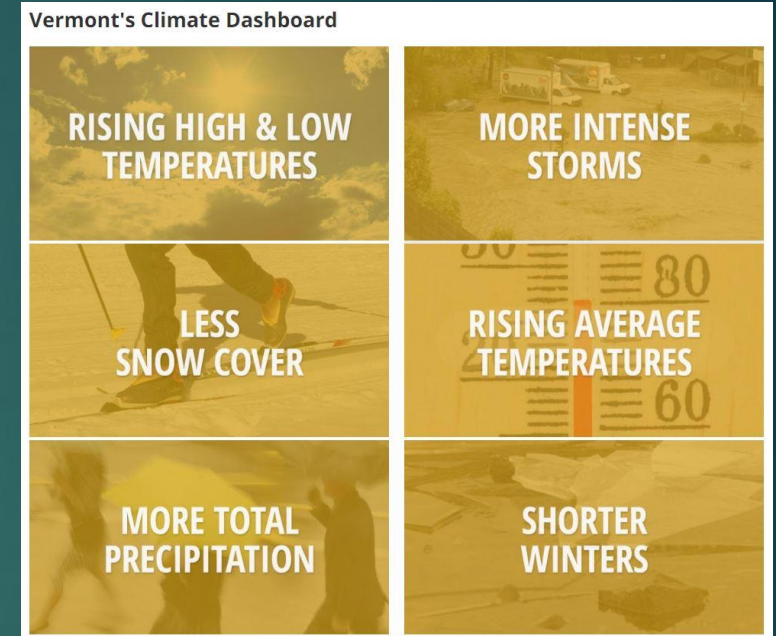
Major disaster declarations from 2017-2019 =unprecedented

- ▶ We have worked in 26 states and 4 U.S. territories that have experienced life-changing disasters
- ▶ Flooding is most common and costly disaster
- ▶ Worsening due to ocean temperatures and rising seas
- ▶ Technology can predict where floods will occur



HB 688 Resilience Language

- ▶ **Adaptation and resilience measures are necessary to adapt to address climate risks.**
 - ▶ Mitigation, adaptation, and **resilience strategies must prioritize the allocation of investment of public resources to these communities and minimize, to the greatest extent practicable, potential regressive impacts.**
 - ▶ **Establishing robust adaptation and resilience strategies for Vermont will help protect the State from a climate crisis-related credit downgrade**
- ▶ ... (1) Identify, analyze, and evaluate strategies and programs to reduce greenhouse gas emissions; achieve the State's reduction requirements pursuant to section 578 of this title; and **build resiliency to prepare the State's communities, infrastructure, and economy to adapt to the current and anticipated effects of climate change**
 - ▶ ...develop best practice recommendations specific to rural communities ... **fortifying critical transportation, electricity, and community infrastructure; and creating a distributed, redundant, storage-supported local electrical system;** (C) recommend a means of securely sharing self-identified vulnerable residents' information with State and local emergency responders and utilities; and (D) **recommend tools for municipalities to assess their climate emergency preparedness, evaluate their financial capacity to address infrastructure resiliency, and prioritize investment in that infrastructure.**
 - ▶ ...**changes to land use and development**, including to chapter 151 of this title and V.S.A. § 248, to reduce greenhouse gas emissions and **promote resiliency in response to climate change...**





INTERNATIONAL
ECONOMIC DEVELOPMENT
COUNCIL

States of Resilience



A Comparison of Resilience Efforts in
U.S. States and Territories

International Economic Development Council

March 27, 2019



A review of 37 states & territories with significant initiatives



How they're set up, funded and staffed



Most programs focus on extreme weather but lack specifics



Need: Training and exercises during "blue skies" introduce the support system and roles



States are getting better at using technology to predict and measure readiness. What about communities?

What are some projects that help communities anticipate, withstand shocks, and bounce back?

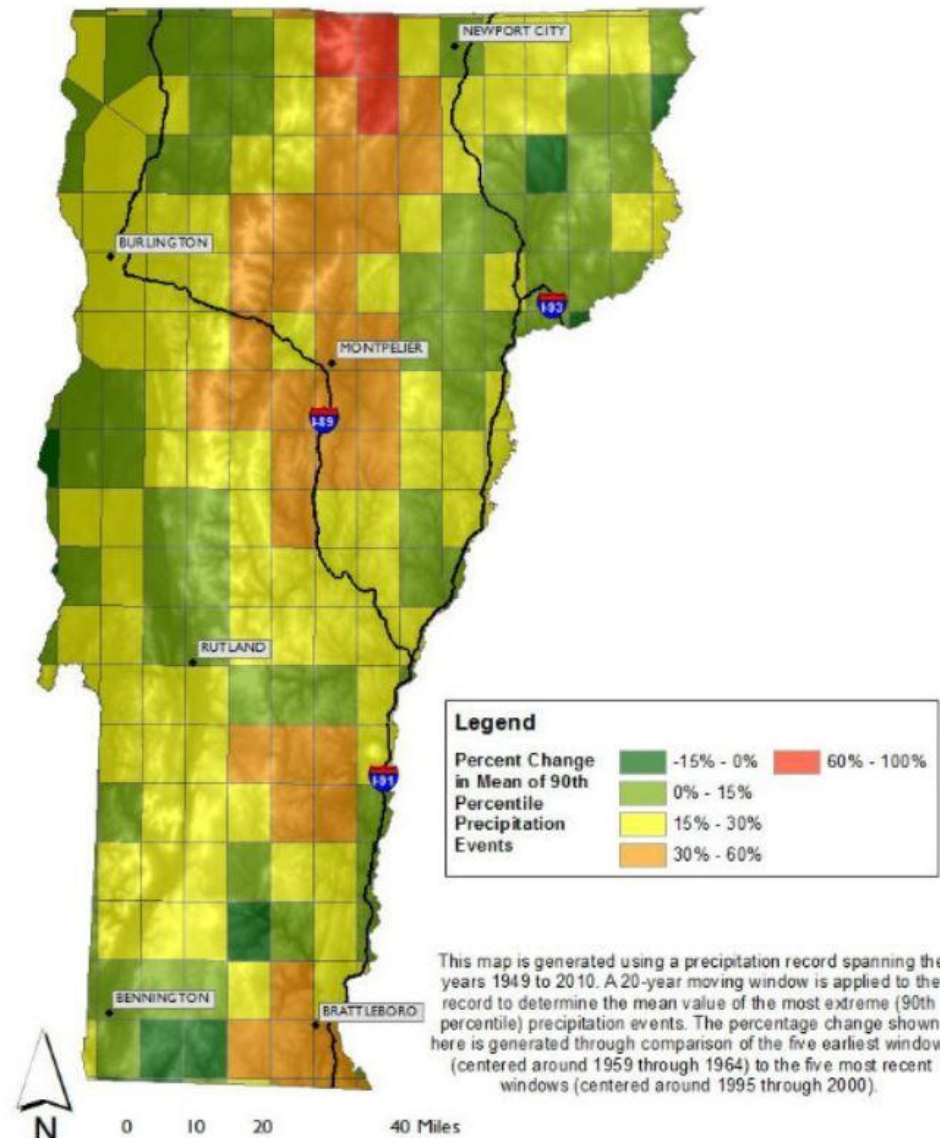
Hardening infrastructure:

- ▶ Mitigation: safe and resilient development practices in business districts
- ▶ Fundamental “building blocks of prosperity” -- broadband, energy, water, wastewater, roads / evacuation routes
- ▶ Redundancy in telecommunications and broadband networks

Economic recovery:

- ▶ Business continuity and preparedness activities
- ▶ Crisis communications
- ▶ Establishing recovery centers
- ▶ Business re-entry procedures
- ▶ Industry diversification
- ▶ Revolving Loan Funds (RLF) and small grant programs to help impacted businesses get back on their feet

Extreme Precipitation Trend 1949-2010



Success criteria for resilience initiatives

- ✓ They are funded
- ✓ Layered response to needs of impacted communities – local, regional, state, federal
- ✓ Pre-assessment of vulnerable infrastructure
- ✓ Investments in migration
- ✓ Build up local capability and funding
- ✓ Sustainability/durability, support from stakeholders
- ✓ Alignment with community's investment priorities
- ✓ Demonstrated ability to promote private investment



- ✓ Likelihood of projects to start quickly with immediate impact
- ✓ Extent to which projects will enable the community/region to become more economically diversified, prosperous, resilient
- ✓ Extent to which projects are based on regionally-oriented and collaborative economic development strategies (CEDs)

Federal Recovery Support Function (RSF)

BEST PRACTICE:

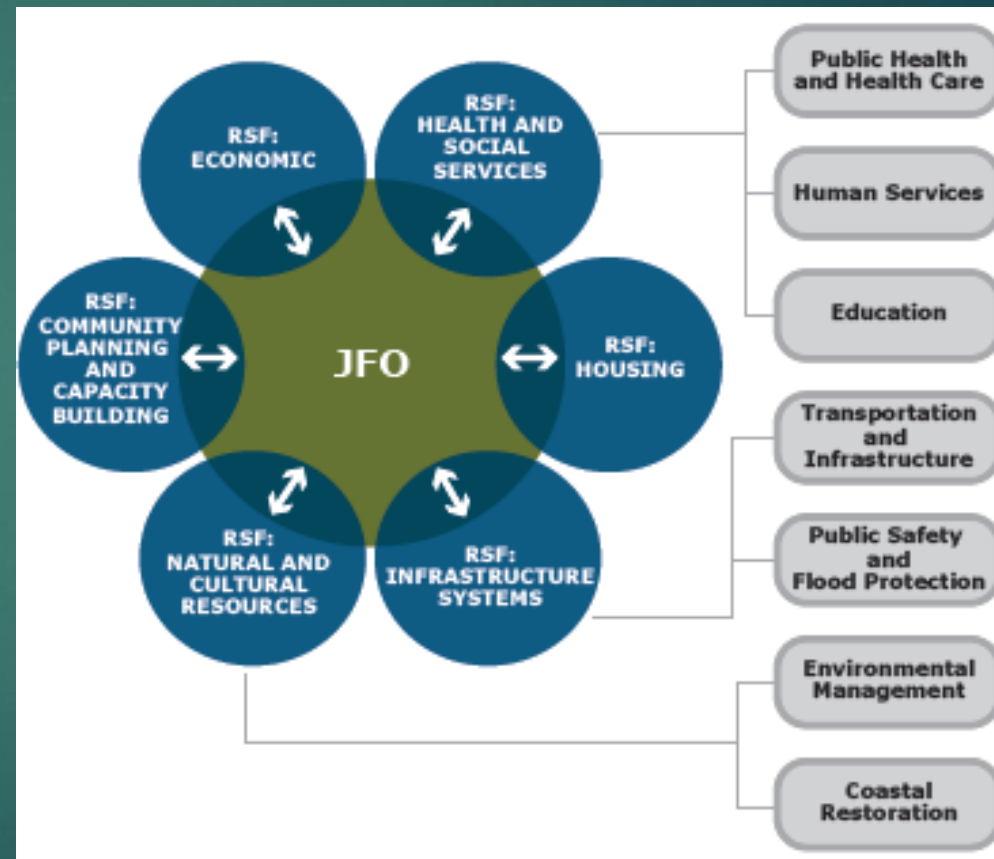
State and local governments are encouraged to create recovery coordination structures to complement federal functions.

MISSED OPPORTUNITY:

Know how to tap into resources!

After a disaster is the worst time to learn.

National Disaster Recovery Framework brings together recovery capabilities of 15 federal agencies and supporting organizations

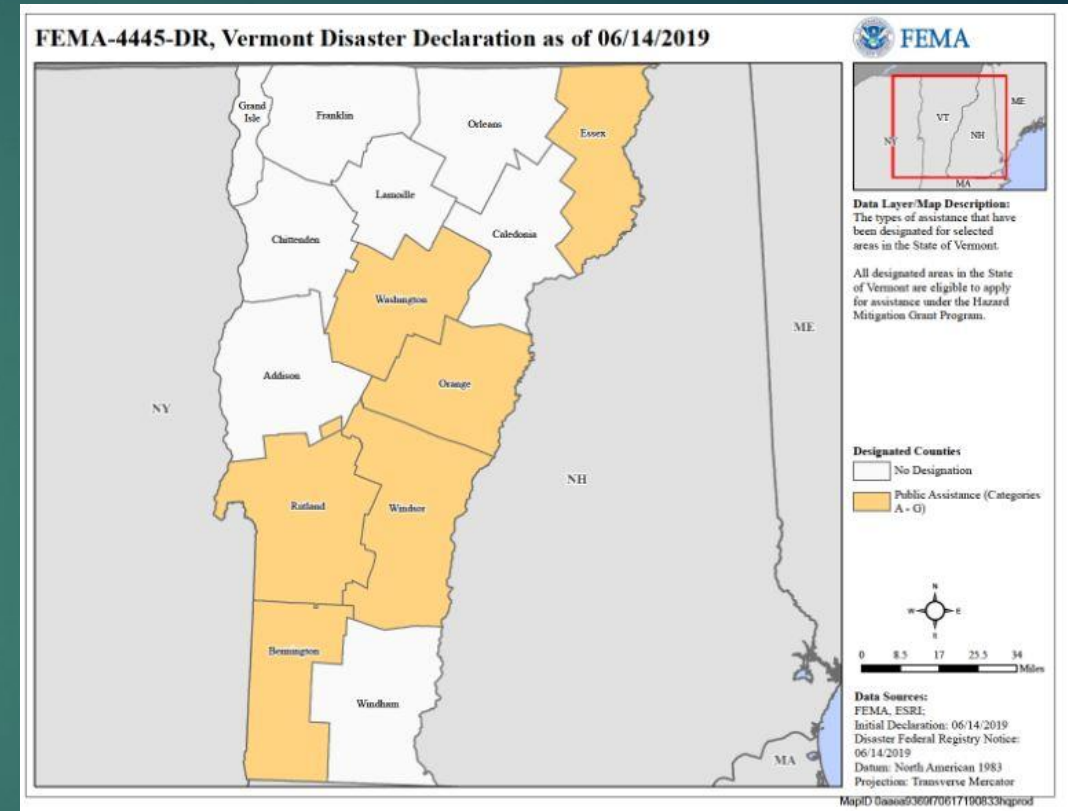


Federal Disaster Assistance Response and Recovery Programs: Brief Summaries

www.crs.gov

Gaps & Opportunities

- ▶ States are increasingly recognizing and measuring vulnerabilities
- ▶ But there are significant GAPS:
 - ▶ Funding for state programs – public or private?
 - ▶ Addressing capability at local level
 - ▶ Training community leaders
 - ▶ Delta Regional Authority example
 - ▶ Rainy day funds for businesses, non-profits
 - ▶ Florida Bridge Loan program – state level
 - ▶ Rebuild Texas Fund - philanthropic
 - ▶ Vermont Disaster Relief Fund – High Meadows Fund of the Vermont Community Foundation
 - ▶ Using metrics that can roll up from communities to the state level
- ▶ How to use the federal resources – 2019 Disaster Supplemental Opportunity

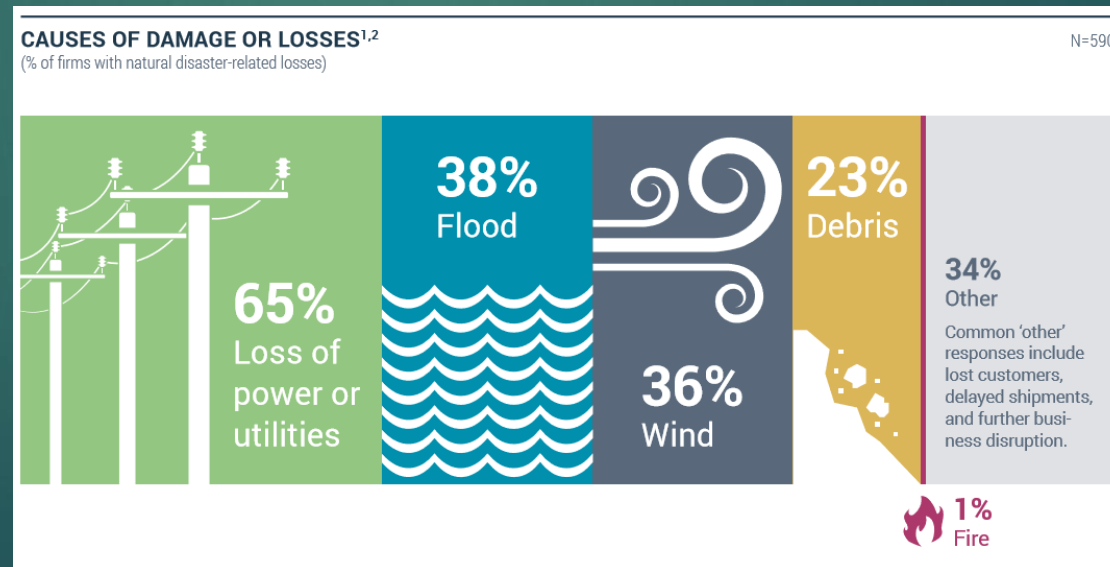


Vermont Severe Storm And Flooding (DR-4474)

Incident Period: October 31, 2019 - November 01, 2019
Major Disaster Declaration declared on January 17, 2020

Typical gap in resilience programs: Economic Recovery

- ▶ Economic Recovery = the ability to return economic and business activities to a healthy state and develop economic opportunities that result in a more sustainable and economically viable community
- ▶ Up to 40% of businesses never re-open after a disaster*
- ▶ Businesses that don't have access to power lose the fastest
- ▶ Small rural communities, women-owned, minority businesses hard hit





ISD's Resilience READI Framework

R

Resilience
Commitment

E

Engage Key
Stakeholders

A

Assess
Capabilities and
Gaps

D

Design
a Framework

I

Implement &
Improve



RESILIENCE READI
HELPING COMMUNITIES BECOME MORE DISASTER RESILIENT



**Institute for
Sustainable Development**

Advice for resiliency

- ▶ Study what other states are doing
- ▶ Make resiliency a core value in planning
- ▶ Be prepared to make investments – governance, mitigation, public information, training, economic recovery support systems
- ▶ Expand metrics to include economic recovery – READI program is one example
- ▶ Understand and utilize a full range of resources, innovation, federal assistance
- ▶ Cascade program to the smallest communities

Questions?



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