

**Gulf Coast & Atlantic States Regional Task Force
Southern Legislative Conference
Council of State Governments
Winston-Salem, N. C.**

**FEMA'S Community Rating System
and Development Strategies
in the Coastal Zone**

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CRS Project Team
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August 17, 2009**

Businesses Closed



Schools Closed



CLOSED – NOT OPEN FOR BUSINESS



Homes Destroyed



Sea walls Destroyed

Buildings Destroyed

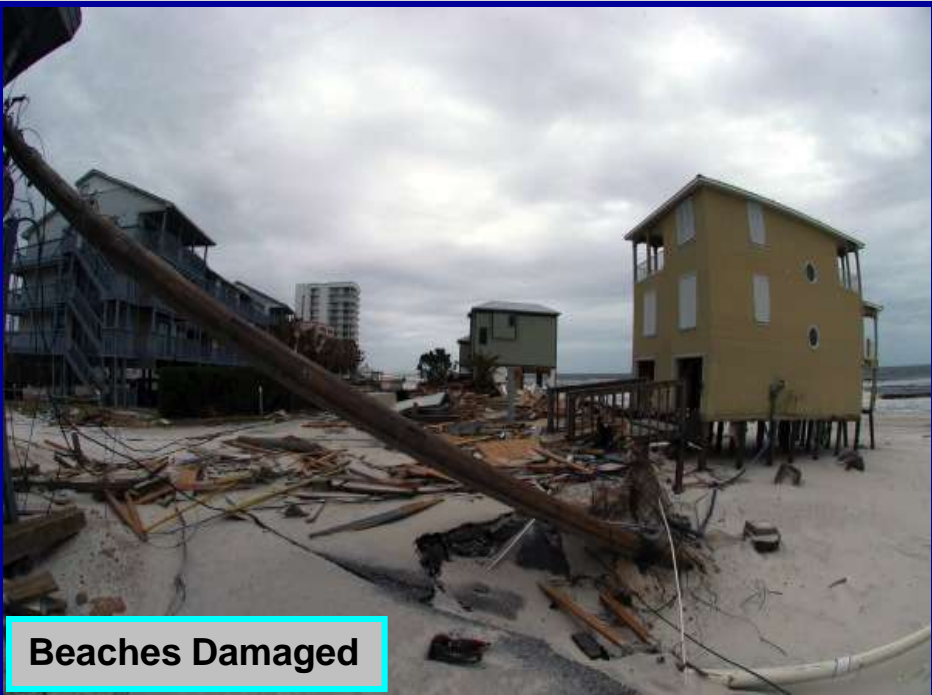


Homes Levelled



CLOSED – NOT OPEN FOR BUSINESS

Beaches Damaged



Debris





Sustainable Community

Sustainable communities experience minimum disruption to life and their economy after a major storm.

Individuals at risk are safe from hazards in their homes and places of work.



What makes a Sustainable Community?

- **A public informed about hazard losses, costs and solutions**
- **An understanding of the costs of doing nothing**
- **Knowledgeable public and private leaders willing to act**
- **Accurate risk maps (storm surge, flood inundation, etc.)**
- **Enhanced land use and building codes, etc.**
- **Preservation of natural protective features**
- **Land use plans with hazard mitigation goals and actions**
- **Emergency Operations Plans with mitigation actions**



Community Rating System (CRS)

Sustainable Communities

18 CRS Activities

Four categories:

- 1. Public Information**
- 2. Mapping and Regulations**
- 3. Flood Damage Reduction**
- 4. Flood Preparedness**



Community Rating System (CRS)

Volunteer Program Premium Discount

Class	Points	SFHA	Non-SFHA
1	4,500	45%	10%
2	4,000	40%	10%
3	3,500	35%	10%
4	3,000	30%	10%
5	2,500	25%	10%
6	2,000	20%	10%
7	1,500	15%	5%
8	1,000	10%	5%
9	500	5%	5%
10	0	0	0



Community Rating System (CRS)

SLC Gulf & Atlantic States

	Coastal Zone	CRS Total
Alabama	4	12
Florida	211	213
Georgia	7	28
Louisiana	22	37
Maryland	6	8
Mississippi	11	21
North Carolina	46	76
South Carolina	24	37
Texas	16	43
Virginia	14	18

*As of May 1, 2008



Community Rating System (CRS)

SLC Gulf & Atlantic States

	CRS Total	Average CRS Credit
Alabama	12	1,229
Florida	213	1,411
Georgia	27	1,247
Louisiana	37	989
Maryland	8	1,429
Mississippi	21	1,411
North Carolina	76	1,385
South Carolina	37	1,514
Texas	43	1,406
Virginia	18	1,003

*As of May 1, 2008



Community Rating System (CRS)

SLC Gulf & Atlantic States

	CRS Total	CRS Class 5 Communities
Alabama	12	0
Florida	213	11
Georgia	27	0
Louisiana	37	0
Maryland	8	1
Mississippi	21	1
North Carolina	76	3
South Carolina	37	2
Texas	43	2
Virginia	18	0

*As of May 1, 2008



Community Rating System (CRS)

1110 CRS Communities

Class 1	Roseville, CA
Class 2	Tulsa, OK
	King County, WA
Class 3	Pierce County, WA
Class 4	Skagit County, WA
	Ft. Collins, CO



Community Rating System (CRS)

SLC Gulf & Atlantic States

	CRS Total	CRS Policies	CRS Discount
Alabama	12	31,248	\$1,291,633
Florida	213	2,027,633	\$132,567,720
Georgia	28	61,371	\$3,525,591
Louisiana	37	401,490	\$20,006,689
Maryland	8	30,045	\$1,306,533
Mississippi	21	48,001	\$1,204,152
North Carolina	76	91,340	\$5,702,418
South Carolina	37	152,212	\$13,860,484
Texas	43	356,262	\$9,373,011
Virginia	18	36,137	\$1,138,696

*As of May 1, 2008



Community Rating System (CRS)

1. Public Information

320 Hazard Information

Credit is assigned for providing inquirers information about the community's

- Flood Hazards (FIRM)
- Special Hazards
- Development Regulations



•Provide Risk Information

570



Community Rating System (CRS)

1. Public Information

330 Public Information Programs

Brochures Mailed to the Public

Placed as Inserts in the Local Paper





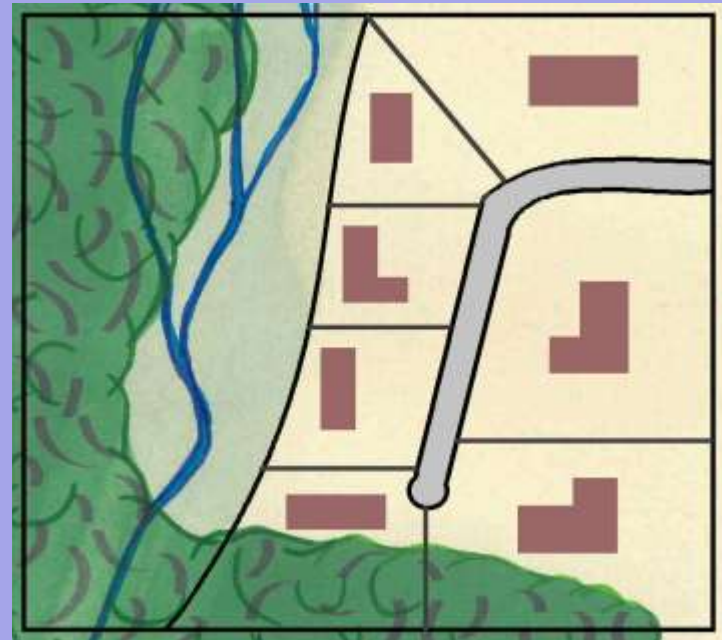
Community Rating System (CRS)

2. Mapping and Regulations

420 Open Space Preservation

Subdivision Regulation

Lots in but Buildings out
of the floodplain



Open Space Preservation (420)

551



Community Rating System (CRS)

2. Mapping and Regulations

420 Open Space Preservation

Stream Setback
Regulation

Buildings out of the
floodplain



Open Space Preservation (420)

551



Community Rating System (CRS)

2. Mapping and Regulations

420 Open Space Preservation

Community preserves flood-prone property as publicly owned or controlled open space

Example: Jupiter, Florida, has an open space program funded by a \$17 million land acquisition bond to preserve environmentally sensitive lands and lands for open spaces





Community Rating System (CRS)

2. Mapping and Regulations

Mapping areas not mapped by FEMA.

Mapping using future Condition hydrology.

Providing better Topographic data.





Post-Floyd Study

**Distance from
Vegetation Line**

Average Loss

0-10 feet

95%



11-30 feet

53%



31-60 feet

16%





Community Rating System (CRS)

2. Mapping and Regulations

410 Identifying Flood Related Risks

Community maps areas susceptible to “special hazards” (e.g., coastal erosion, subsidence, tsunamis) and use the maps for land use regulation



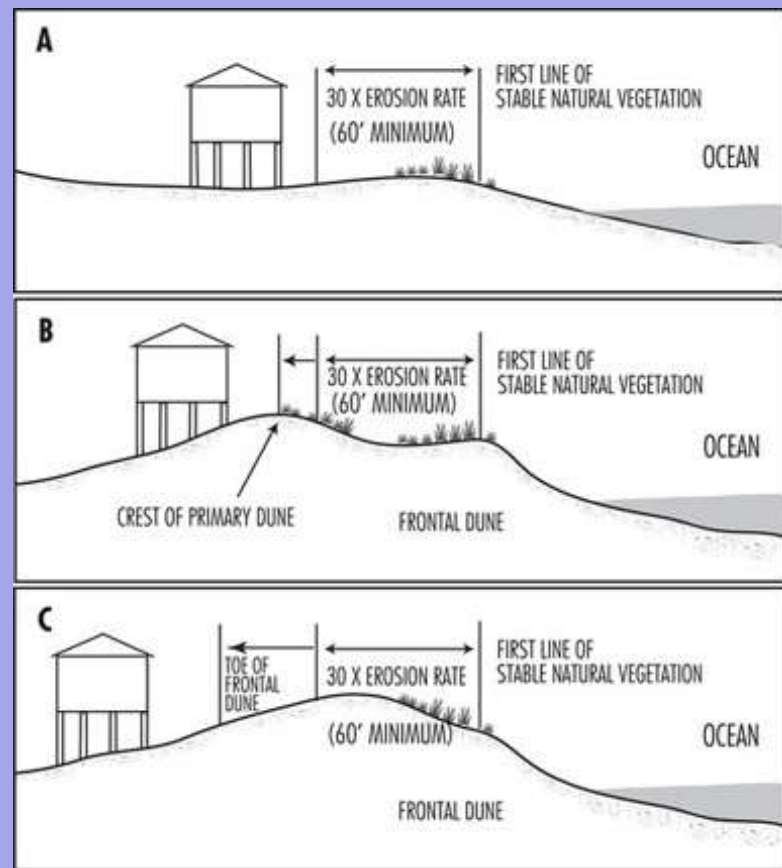


Community Rating System (CRS)

2. Mapping and Regulations

430 Coastal Erosion Regulations

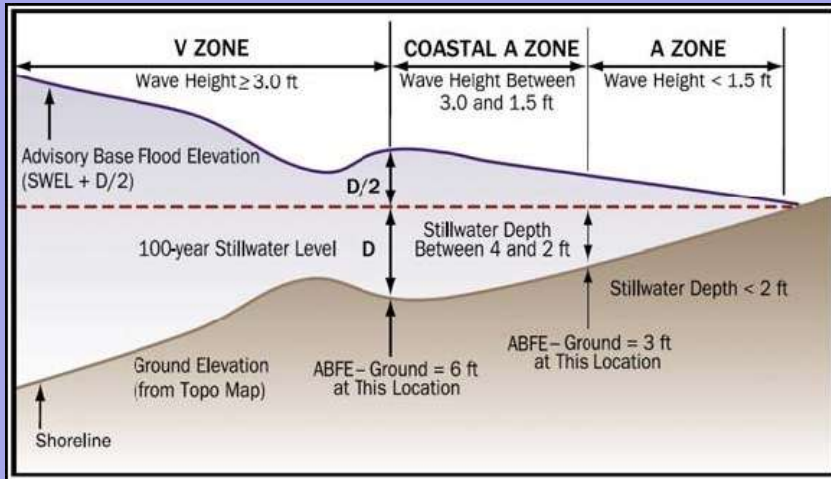
- New Construction to meet erosion setback regulations.
- More credit the greater the distance from the setback reference feature.









Community Rating System (CRS)

HURRICANE KATRINA SURGE INUNDATION and ADVISORY BASE FLOOD ELEVATION MAP Jackson County, MS



Flood Advisory-Related Data

-  ABFE Contours (1-foot intervals)³
-  ABFE Inland Limit³
-  Approx. Limit of 1.5-foot Wave Zone³
-  Approx. Limit of 3-foot Wave Zone³



Adopting the Coastal A-Zone and Regulations:

5



Community Rating System (CRS)

2. Mapping and Regulations

430 Coastal A-Zone Regulations

V-zone Construction Standards

- **Pile or Column Foundation**
- **Foundation and Structure Anchored to Resist Wind and Water Loads**
- **Area Below Lowest Floor is Free of Obstruction**
- **Elevation Reference Point is the Bottom of the Lowest Horizontal Structural Member**
- **No Fill for Structural Support**



Communities getting points for adopting the Coastal A-Zone and Regulations: 5



Community Rating System (CRS)

2. Mapping and Regulations

430 Adopting Higher Construction Standards

International Building Code

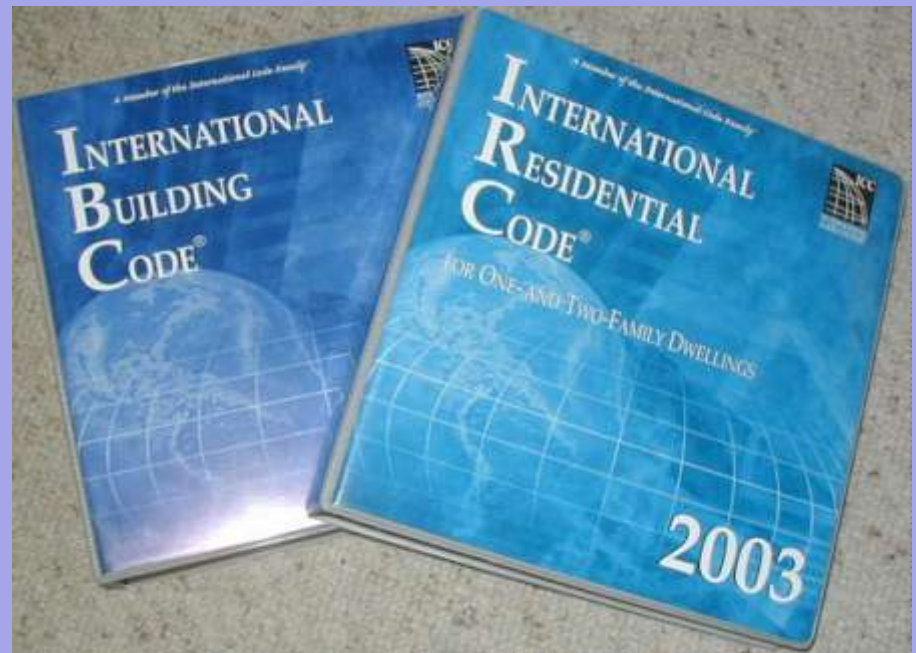
International Residential Code

International Plumbing Code

International Mechanical Code

International Fuel Gas Code

International Private Sewage
Disposal Code



Adopt ICC Building Codes (430)

515

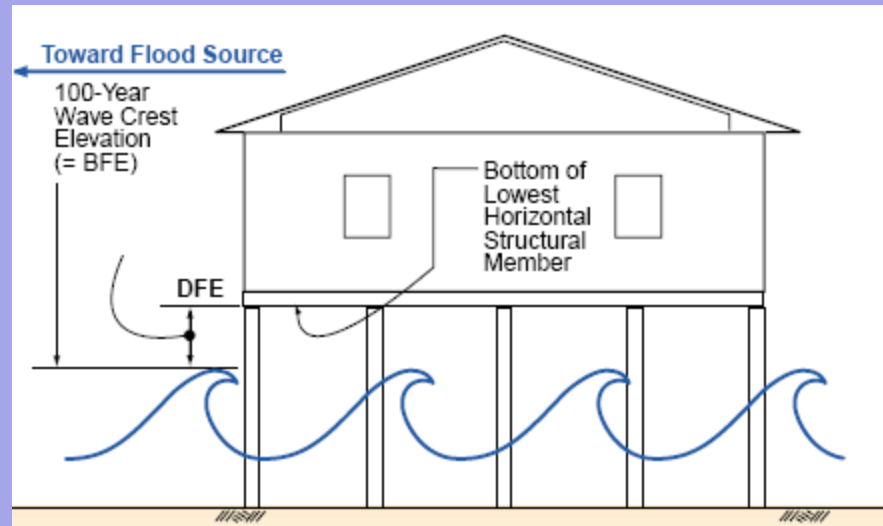


Community Rating System (CRS)

2. Mapping and Regulations

430 Adopting Higher Construction Standards

Freeboard Regulations





Community Rating System (CRS)

Elevation Works in Pascagoula, MS

Before Katrina



After Katrina



Post Floyd Study

Enclosed/Non-enclosed Study Group



The average flood loss for structures with enclosures was three times higher than the average flood loss for structures without enclosures.



Community Rating System (CRS)

2. Mapping and Regulations



**430 Regulations that
Prohibit Enclosures**

**430 Limit the Size
of Enclosures**





Community Rating System (CRS)

2. Mapping and Regulations

450 Stormwater Management

Post-development
Runoff is no
greater than Pre-
development
runoff.



On-site retention

Detention



Community Rating System (CRS)

3. Flood Damage Reduction

510 Floodplain Management Planning

Floodplain Management and Mitigation Actions





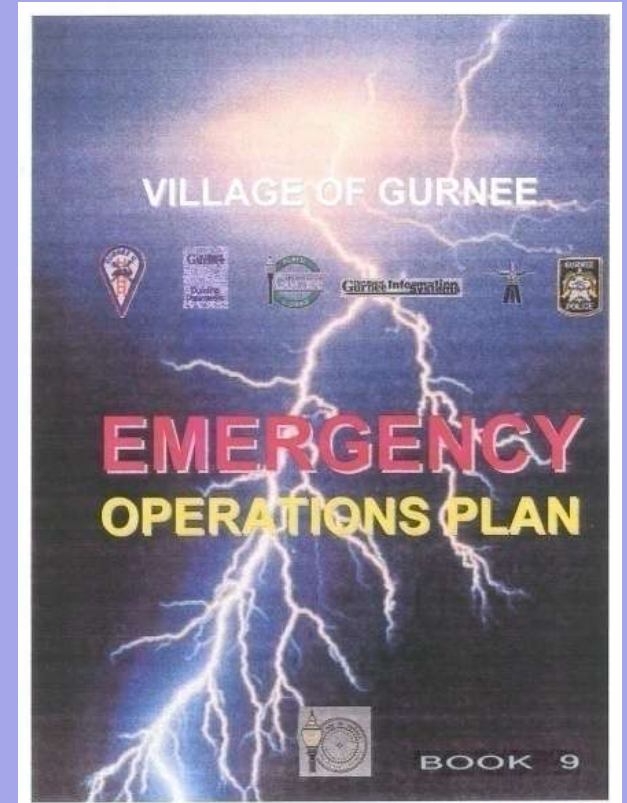
Community Rating System (CRS)

4. Flood Preparedness

610 Flood Warning Program



Howard Franklin Bridge, Pinellas County Florida



What Should States Do?

- Include climate change considerations when making public investments and public policies.



What Should States Do?

- **Adopt pre-disaster policies for post-disaster recovery.**



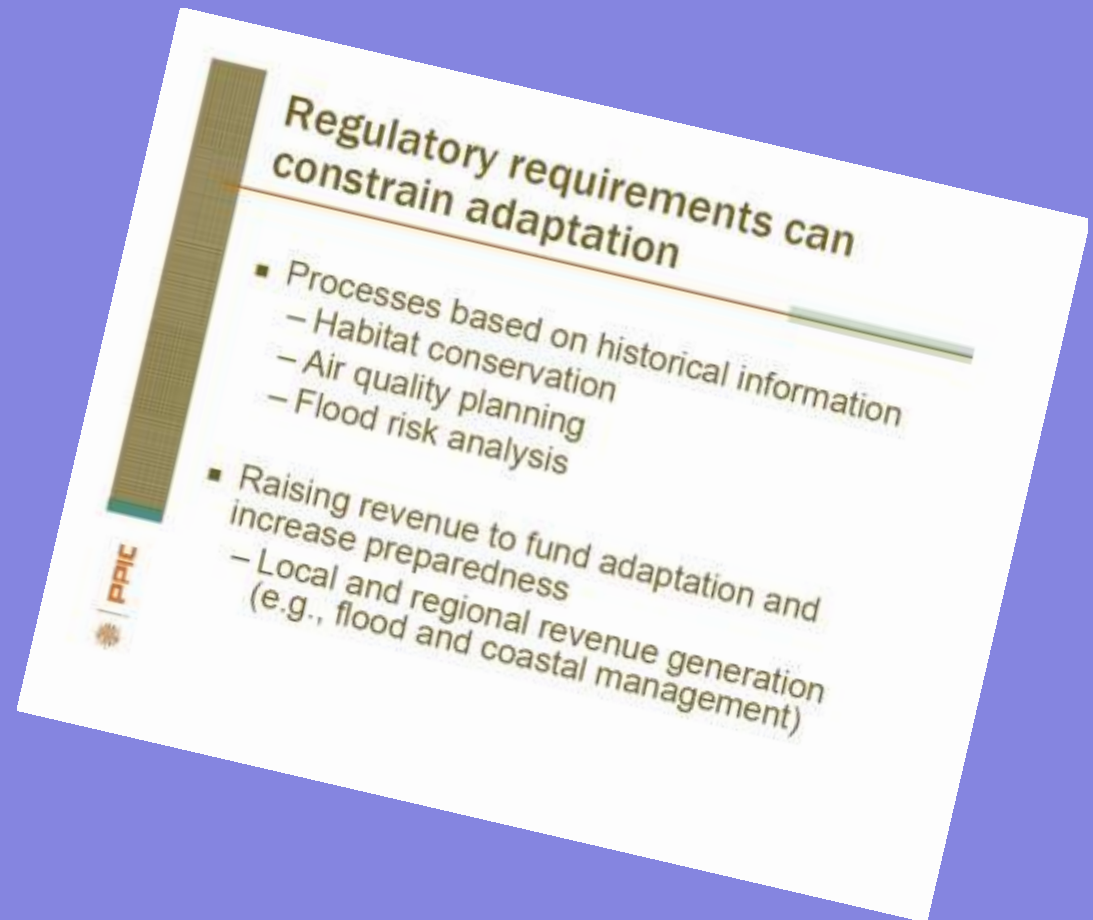
What Should States Do?

- **Adopt policies that encourage local involvement, responsibility and accountability for managing risks associated with natural hazards.**



What Should States Do?

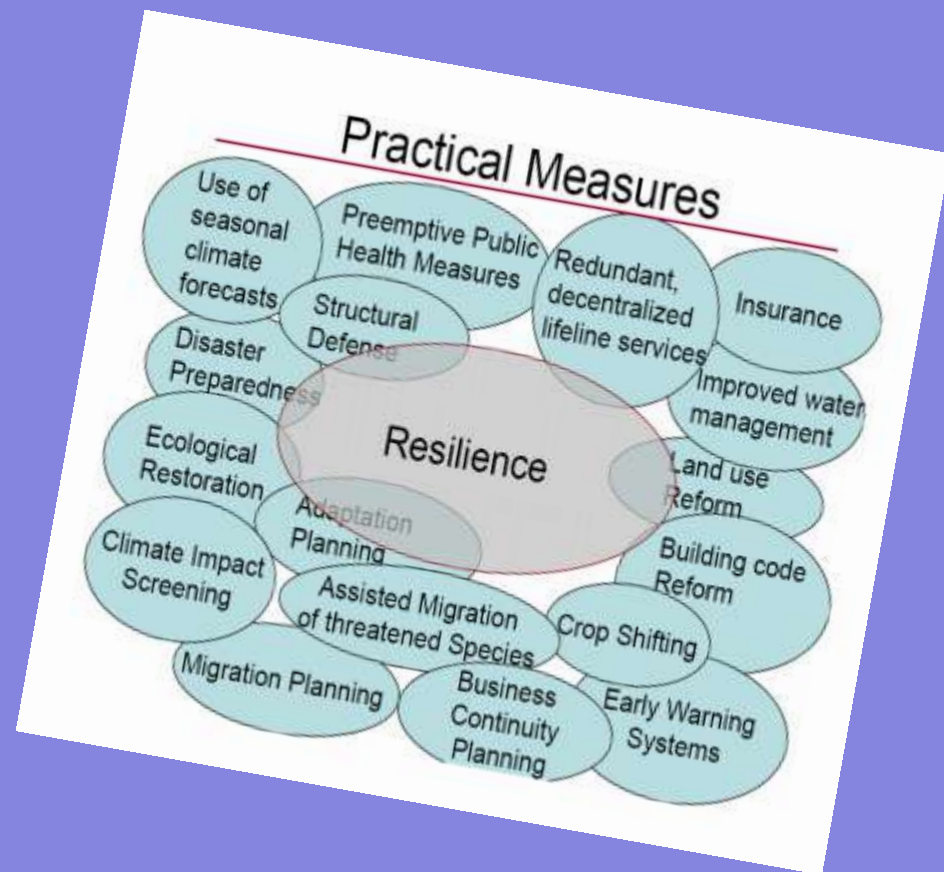
- **Enable local governments to adopt regulations that manage the natural hazard risks within their jurisdiction.**



What Should States Do?

- Foster local resiliency to and responsibility for disasters.

“incorporate sustainable hazards mitigation criteria into all new development plans and projects”



What Should States Do?

- **Embrace the principles of sustainable development.**

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

World Commission on Environment and Development, 1987.

**Thank
You!**



Final Thoughts

**“today’s development policies
design the disasters of tomorrow”**

**“development policies can go a
long way toward building
sustainable communities”**



Sustainable Community

Sustainable communities experience minimum disruption to life and their economy after a major storm.

Individuals at risk are safe from hazards in their homes and places of work.