

Building Community Resilience in Coastal Communities

WHITNEY WAARA

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About LIAA



A nonprofit community service organization created in 1993 to stimulate and support greater civic engagement.

LIAA

Innovative ideas for sustainable communities since 1993

About *Resilient Michigan*



Focus on planning that is:

- Regional, crossing jurisdiction boundaries
- Robust, involving all of the systems that might impact a community's long-term health and the regional prosperity
- Responsive to the needs identified by the community, to the regional vulnerabilities, and to a wide range of potential futures

More info: www.resilientmichigan.org

About *Resilient Michigan*

- Locations around Michigan – from towns of 2500 to regions including 850,000 + residents
- Projects result in new master plans, economic development plans, adjustments to local policies, adaptation plans, and other regional planning documents



Planning for Resilience

Resilience describes the capacity to function, so that the people living and working in a community – particularly the poor and vulnerable – survive and thrive no matter what stresses or shocks they encounter.

A safe and resilient community...

1. ...is **knowledgeable and healthy**. It has the ability to assess, manage, and monitor its risks. It can learn new skills and build on past experiences.
2. ...is **organized**. It has the capacity to identify problems, establish priorities, and act.
3. ...is **connected**. It has relationships with external actors (family friends, faith groups, government) who provide a wider supportive environment, and supply goods and services when needed.
4. ...has **infrastructure and services**. It has strong housing, transport, power, water, and sanitation systems. It has the ability to maintain, repair, and renovate them.
5. ...has **economic opportunities**. It has a diverse range of employment opportunities, income and financial services. It is flexible, resourceful and has the capacity to accept uncertainty and respond (proactively) to change.
6. ...can **manage its natural assets**. It recognizes their value and has the ability to protect, enhance and maintain them.

Source: International Federation of Red Cross and Red Crescent Societies. *Understanding community resilience and program factors that strengthen them: A comprehensive study of Red Cross Red Crescent Societies tsunami operation*, June 2012. http://www.ifrc.org/PageFiles/96984/Final_Synthesis_Characteristics_Lessons_Tsunami.pdf

Systems of Focus

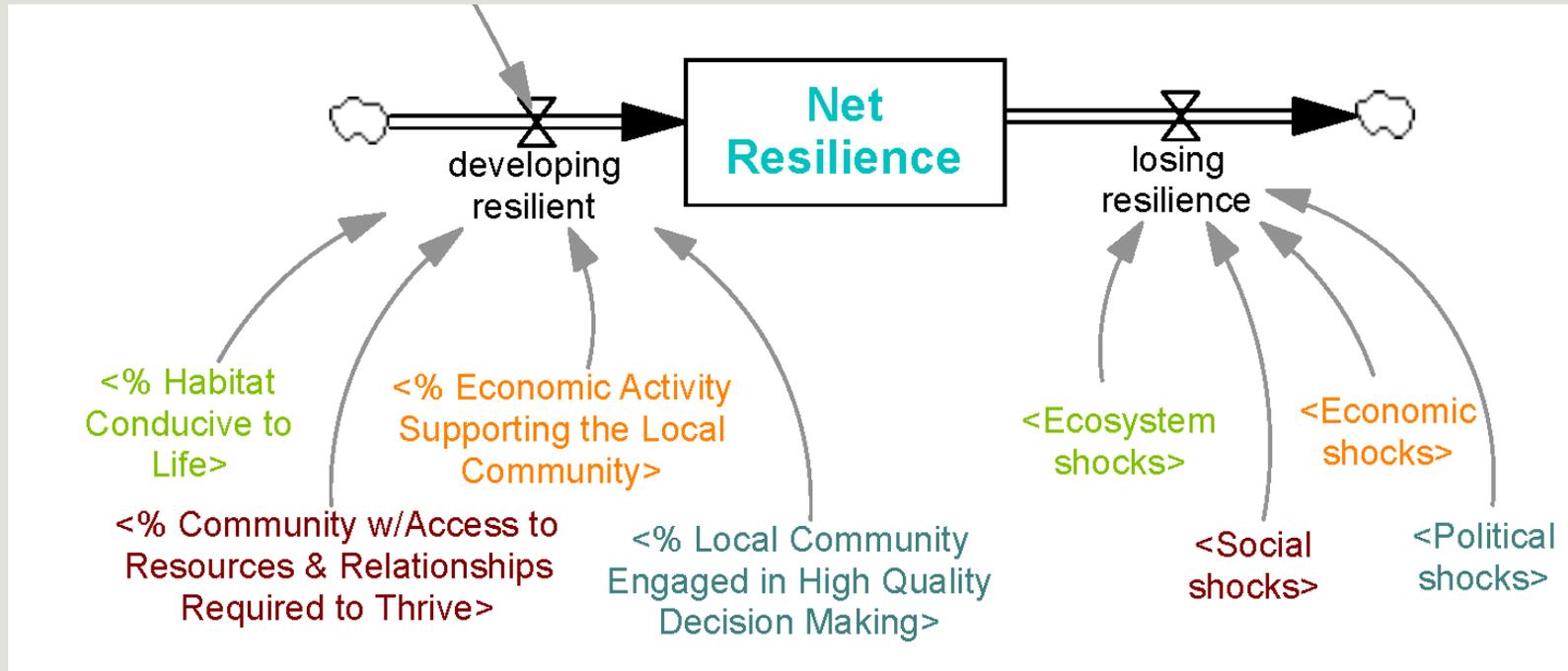
1. People – the health and wellbeing of individuals
2. Place – the way in which infrastructure and ecosystems protect, provide for and connect urban citizens
3. Organization – the social and financial systems that enable urban populations to live peacefully, and act collectively
4. Knowledge – the importance of informed decision making, and empowered stakeholders.

Source: Arup, working with Rockefeller Foundation's 100 Resilient Cities project

Community values and enhancements

- **Diversity** (economic, social, environmental)
- **Social Capital** (people connected & responsive)
- **Modularity** (e.g., local & regional production capacity)
- **Tight Feedback Loops** (close monitoring of local systems)
- **Innovation** (considering novel solutions, entrepreneurship)
- **Ecosystem Services** (e.g., water retention & filtration)

Examine the Challenges

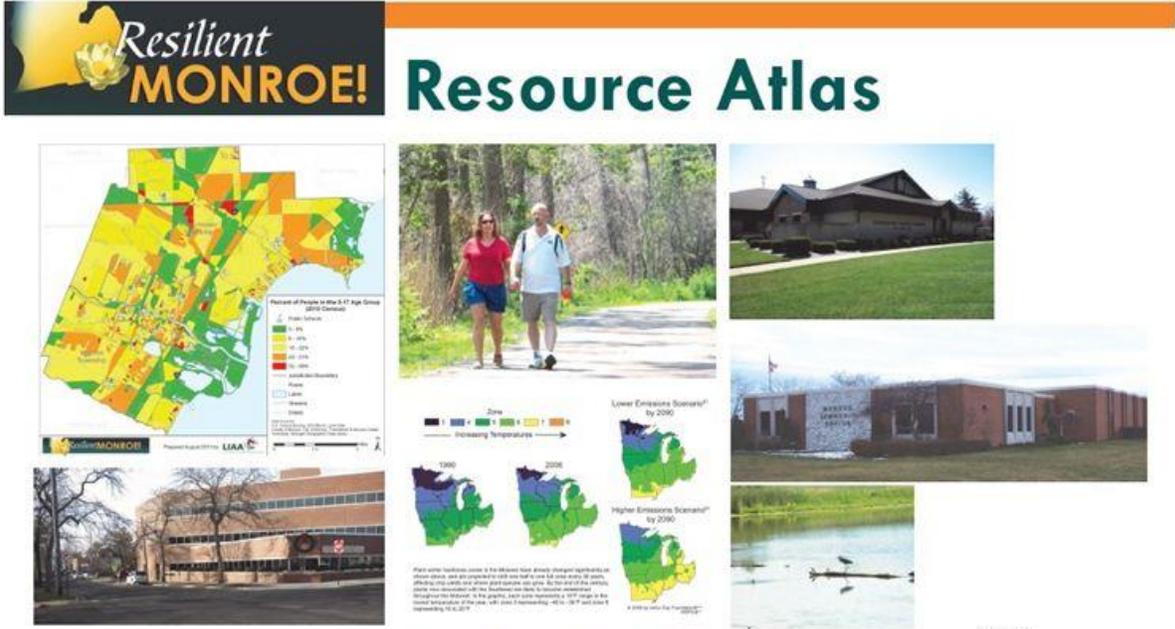


From: Scott Spann, Innate Strategies, Inc.

Link: <http://www.screencast.com/t/TTK8vkKip>

Password: resilient

Consider a Wide Range of Factors



Resilient MONROE! Resource Atlas

October 15, 2013

Prepared by **LIAA**

The cover page features a collage of images and data. At the top left is the 'Resilient MONROE!' logo. Below it is a map of Monroe, Louisiana, color-coded by the percentage of the population aged 65 and over. To the right of the map are three photographs: a couple walking on a paved path, a large wooden house on a green lawn, and a brick building with a flagpole. Below the couple walking is a small map showing temperature trends from 1980 to 2008, with a legend for 'Increasing Temperatures'. To the right of this is another map showing 'Lower Emissions Scenario' and 'Higher Emissions Scenario' for the year 2050. At the bottom left is a photograph of a large brick building. At the bottom right is a photograph of a river with a small boat. The LIAA logo is in the bottom right corner.

Involve the Public







Pirates beat Tigers again

SPORTS, 1B



Movie legend Lauren Bacall dies at 89

OBITUARY, 2A

Creditor bares teeth in Chap. 9 objection

City lawyer disputes Syncora claim of 'conflicted' mediators

BY CHAD LIVENGOOD
The Detroit News
The Essential Insurance of



The Detroit News

Wednesday, August 13, 2014 detroitnews.com

'We've never dealt with anything like this before'

Warren
CITY LIMIT

Help Identify Actions of No Regret

Regardless of people's beliefs, they can see benefits from improving the community



Placemaking and Economic Prosperity

Improve ability to attract and retain workforce

Meeting demand trends for urban living, public transit, more walkable cities, smaller houses

“Placemaking is about turning a neighborhood, town, or city from a place you can’t wait to get through into one you never want to leave.”

“The difference between great cities and good cities is the quality of their public spaces.”

Fred Kent
Project for Public Spaces

Address the challenges, make it desirable

- When focusing on place, you do everything differently
- Build communities around happiness and well-being
- Importance of the ordinary citizen in planning
- Fosters a sense of pride and emotional connectiveness

ADDRESS THE PRESSING PROBLEMS FIRST

- Drought
- Flooding
- Extreme heat waves
- Fuel Prices
- Increased air pollution
- Overtaxed drainage systems
- Severe storms
- Water quality

Examples of Building Resilience

- Green Infrastructure to absorb increasing storm water
- Invest in local businesses for long term sustainability
- Promote access to local food sources – farmers markets; community gardens
- Invest in technology to better respond to emergencies and disasters
- Urban forestry – diverse vegetation, tree canopies, public spaces
- Reduce carbon footprint – invest in green solutions; modes of transportation, i.e. bike lanes, walkability, connectivity

A Few Examples in Michigan

- Ann Arbor – Tree inventory through aerial mapping; solar mapping
- Detroit – Setting up “cooling” centers to deal with extreme heat
- Farmington Hills – LEED certified city hall
- Flint – Updating Master Plan to include extreme weather adaptation strategies
- Grand Rapids – Zoning ordinances consider trees, green space, native plantings , green roofs
- Holland – Community energy plan; locally based energy production; heated sidewalks thru diverted waste from its power plant into pipes that run under downtown streets & sidewalks
- Lansing – Rain gardens along Michigan Avenue to protect the rivers
- Whitehall – Installation of a “green street” to reduce White Lake contamination

General Approaches to Building Community Resilience

There are a number of “pathways” to greater resilience:

- ❑ Prepare for Climate Variability & Extreme Weather
- ❑ Increase Energy Efficiency & Renewable Supplies
- ❑ Renew & Strengthen Infrastructure
(e.g., green infrastructure/ecosystem services)
- ❑ Strengthen the Local Economy
(e.g., diversify, increase local production)
- ❑ Build Social Connections & Social Capital

Some of the processes & efforts:

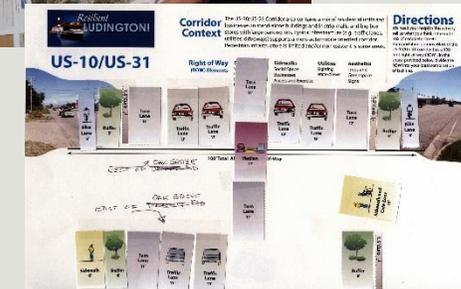
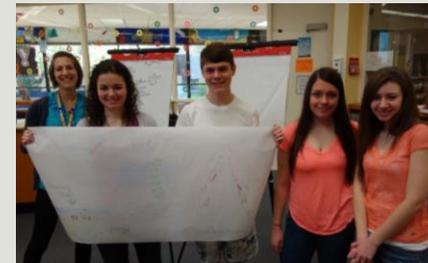
Project Management & Direction

- Community Planning Committee
- Other Local Officials
- Citizen Engagement & Public Participation



Citizen Engagement

- Public Briefings & Discussions
- Leadership Summit
- Youth Planning Effort
- *Community Action Teams*



Some of the processes & efforts:

Data Aggregation & Research

- Review & comparison of existing plans
- GIS Data Layers (e.g., building footprints)
- Demographics updates
- Technical assessments of shoreland processes
- Financial impact assessments
- Environmental assessments
- Development scenarios and alternatives



Communication & Discussion

- Publication of Community Resource Atlas
- Establish goals, priorities & implementation strategies
- Draft, review & support master plan amendments & revisions

THANK YOU

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