



New York State Department of State

# RESILIENCE PRINCIPLES

Provide a framework for a consistent approach to resilience that can be broadly integrated into planning and development.

## WHAT IS RESILIENCE?

Resilience is the capacity for a community and its ecosystem to:

- withstand extreme events and other forces or risks;
- quickly recover interconnected social, economic and ecological systems' structure and function in the aftermath of a disaster; and
- develop ongoing adaptability to rapidly changing environmental conditions and forces.

## RESILIENCE PRINCIPLES AND WHY WE NEED THEM

Resilience is a complex concept. The DOS Resilience Principles provide a straightforward way for communities and practitioners to understand and apply different concepts that form resilience. When combined together, these principles support planning initiatives and projects that are more adaptable, equitable, compatible with the natural environment and considerate of long-term effects.

## THE OFFICE OF PLANNING, DEVELOPMENT AND COMMUNITY INFRASTRUCTURE

The Office of Planning, Development and Community Infrastructure (OPDCI) provides assistance to communities to advance progressive land use solutions, community-based development and improved building standards and codes. OPDCI's work relies on partnerships within DOS and with other agencies, local governments, community-based organizations, academia, non-profits, and other stakeholders.

## HOW CAN OPDCI HELP YOU?



We work with waterfront communities to help increase their resilience to climate change impacts, particularly as it relates to flooding and erosion. OPDCI has developed tools to visualize and assess risk, as well as resources for resilient shoreline management. Working with partner agencies, we developed the resource 'Model Local Laws to Increase Resilience' to flooding, storm surge, and sea level rise, in addition to guidance on the use of natural resilience measures to reduce risk.

OPDCI supports community planning through the Local Waterfront Revitalization Program (LWRP), programs such as Brownfield Opportunity Areas (BOA), and Smart Growth programs, and other initiatives. Staff are available to provide technical assistance on topics related to planning, redevelopment, climate change, risk, and resilience.

### Visit us online!

Resilience Planning on the NYS DOS webpage:  
<https://dos.ny.gov/resilience-planning>

Climate Change & Resilience on the NYS DOS Geographic Information Gateway:  
<http://opdgig.dos.ny.gov/#/focus/resilience>



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# RESILIENCE PRINCIPLES FOR NEW YORK COMMUNITIES

## RISK: KNOW IT, AVOID IT, REDUCE IT.

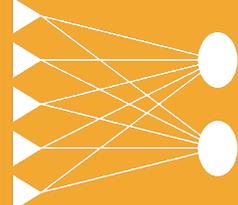


**Know Your Risks:**  
Use maps, risk viewers, and hazard mitigation plans to learn about risks to an area.

**Avoid Risk:**  
Apply land use planning concepts that place development and community assets out of hazardous areas.

**Reduce Risk:**  
Explore options to manage risks through the full range of measures, including non-structural and structural approaches.

## MAINTAIN CAPACITY TO ADAPT

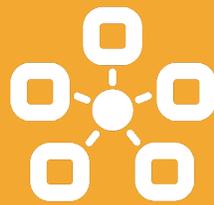


Consider different scenarios of future conditions and be prepared to change course if necessary.

Possible scenario variables include:

- Climate stressors
- Development patterns
- Planning timeframes

## MULTIPLE BENEFITS FROM ONE MEASURE



Seek solutions that provide multiple benefits and address multiple goals.

Aim to identify resilience measures that are win-win solutions, such as green roofs.

- Green roofs:
- Absorb rainwater
  - Reduce building energy usage
  - Reduce urban heat island effect

## LET NATURE DO THE WORK



Conserve, enhance, and restore naturally resilient features and systems.

Left alone or supported through restoration actions, many natural features maintain or improve in their risk reduction benefits over time. Natural features can reduce risk by:

- Absorbing water
- Acting as a buffer
- Slowing wave or water energy
- Stabilizing or supplying sediment
- Conveying or draining water

## STACK RESILIENCY MEASURES



Create a layered approach of multiple measures to provide greater reliability should one measure fail.

Reliance on one measure can prove catastrophic, such as when the levees in New Orleans failed during Hurricane Katrina.

Vary the types of measures, from land use policies to site specific measures, and have backups in place.

## SHARE COSTS AND BENEFITS EQUITABLY



Identify the impact on existing inequities and the potential costs to future generations.

Consider long-term impacts as well as impacts to neighbors to avoid transferring or deferring risks to others. Addressing risk and improving resilience of vulnerable or marginalized populations requires special consideration and extensive, meaningful public engagement, including identifying and addressing existing inequities.

## MAKE INCLUSIVE AND TRANSPARENT DECISIONS



Transparency, accountability, and inclusivity tend to lead to better decisions and reduce conflicts.

Develop an inclusive and equitable public outreach and engagement plan and clearly outline the public's role in the planning and decision-making process.

Build trust by soliciting input in multiple ways throughout the process and follow through and communicate outcomes.