DELIVERY MODELS FOR RESILIENCE

A CASE STUDY FOR NEW YORK’S GREAT LAKES BASIN

CDRPC Spring 2021 Webinar Series
Wednesday, March 31
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AGENDA

1. Overview of the Great Lakes Region and Climate Change Adaptation and Resilience
2. Flooding Events and REDI/CLEAR Initiatives
3. Delivery Models for Resilience
4. Next Steps
CLIMATE ADAPTATION AND RESILIENCE

GREAT LAKES REGION

Source: International Lake Ontario - Saint Lawrence River Board (ILO-SLRB)
NEW YORK’S GREAT LAKES REGION

NY's Great Lakes Sub-Basins

Source: NY's Great Lakes Action Agenda
NEW YORK’S GREAT LAKES REGION

DEC’S GREAT LAKES WATERSHED PROGRAM

Supporting or Key Partners

• Great Lakes Basin Advisory Council – policy & communications support
• NY Sea Grant – extension and outreach support, technical assistance
• Great Lakes Research Consortium – scientific research & technical partner
• Other – SWCDs, Regional Planning Councils, etc. that provide technical assistance in support of their own missions and the GLAA

Source: NY’s Great Lakes Action Agenda
CLIMATE ADAPTATION AND RESILIENCE
GREAT LAKES REGION

Source: GLISA - Climate Change in the Great Lakes Region References
CLIMATE ADAPTATION AND RESILIENCE
NEW YORK’S GREAT LAKES REGION

High resilience

Low Resilience

High Adaptive Capacity
CLIMATE ADAPTATION AND RESILIENCE IN NEW YORK STATE

Response to Recent Trends

1. **POLICIES**
   - Community Risk and Resiliency Act (2014)
   - Climate Act (2019)

2. **PROGRAMS**
   - NYSERDA Clean Energy Communities
   - DEC Climate Smart Communities Certification Program

3. **PLANS**
   - 2100 Commission Report
   - Responding to Climate Change in New York State (ClimAID)

NATIONAL FIRM: STRONG LOCAL CONNECTIONS.
LAKE ONTARIO:
FLOODING EVENTS AND
ADAPTIVE MANAGEMENT
HISTORY - FLOOD AND EROSION EVENTS

LAKE ONTARIO FLOODING

Episodic flood events linked to extended periods of high static water, occurring approximately every 20 years:

- 1929
- the mid 1940s and early 1950s (1943, 1947, 1951, 1952)
- 1993
HIGH-WATER EVENTS OF 2017 AND 2019
LAKE ONTARIO FLOODING

- On July 6, 2017, Governor Cuomo requested a major disaster declaration due to flooding during the period of May 2 to August 6, 2017
- On November 14, 2017, President Trump declared that a major disaster exists in New York State
- On May 20, 2019, Governor Cuomo declared a State of Emergency

Source: FEMA Preliminary Damage Assessment Report
REDI
RESILIENCY AND ECONOMIC DEVELOPMENT INITIATIVE

$20 million for homeowner assistance
$30 million to improve the resiliency of businesses
$15 million toward a regional dredging effort
$235 million for local and regional projects
  • Olcott Harbor, Niagara County
  • Yates Town Park, Orleans County
  • St. Paul Terminus, Monroe County
  • International Pier, Oswego County
  • Clayton Riverwalk, Jefferson County
Communities participating in CLEAR will receive State assistance to:

- Increase local capacity for applying resilience concepts to meet their specific needs
- Integrate resiliency strategies and best practices into existing local plans, policies and practices
- Generate a list of priority resilience strategies screened for resilience capacity
- Take initial steps to implement local and regional resilience strategies and initiatives identified through CLEAR
CLEAR COASTAL LAKESHORE ECONOMY AND RESILIENCY INITIATIVE

Regional strategies and recommended local actions, such as
• updated zoning
• installation of green infrastructure
• more sustainable water-dependent businesses
Implementation Strategy

PLANNING PROCESS

Lack of local capacity and resources
Watershed Protection Plans

**IMPLEMENTATION**

- Shoreline properties versus upland drainage
- Upstream/downstream flooding
- Effects of urbanization and flood control
DELIVERY MODELS FOR RESILIENCE IN NEW YORK STATE

Hudson River Estuary Program

Clean Energy Communities

A PROGRAM OF NYSERDA

Cornell Local Roads Program

New York LTAP Center

NEW YORK STATE

TUG HILL COMMISSION

PUBLIC INVESTMENT  PUBLIC RETURN

PRIVATE INVESTMENT  PRIVATE RETURN

NATIONAL FIRM. STRONG LOCAL CONNECTIONS.
Hudson River Estuary Program

NYSDEC

- Created in 1987 through the Hudson River Estuary Management Act
- Hudson River Estuary Management Advisory Committee (HREMAC)
- Area includes tidal Hudson and its adjacent watershed
- Funded through the NYS Environmental Protection Fund and collaborative projects
- Assistance Available for Climate Resilience
  - Climate-adaptive Design (CaD) Studio
  - Receive Support and Recognition: Climate Smart Communities
TUG HILL COMMISSION
COUNCILS OF GOVERNMENTS

- Commission was created in 1972 and in 1992, the state legislature passed the Tug Hill Reserve Act
- The Tug Hill region includes 41 towns and 18 villages in portions of Jefferson, Lewis, Oneida and Oswego counties
- Almost all of the commission’s budget revenue comes from its state appropriation
- New York State Department of State (DOS) is a key state agency partner
- Most of the Tug Hill towns and villages belong to one of five councils of governments (COGs) and is served by one or more “circuit riders” funded through dues
CORNELL LOCAL ROADS

LOCAL TECHNICAL ASSISTANCE PROGRAM (LTAP)

- Funding is provided by:
  - Federal Highway Administration (FHWA)
  - New York State Department of Transportation (NYSDOT)
  - Cornell University
  - Participant training fees
- Provides training and technical assistance to local highway and public works officials in New York State.

There are 51 LTAP centers - one in each State and one serving Puerto Rico and the Virgin Islands.

2021 Spring Workshops are Open for Registration!

Download the Registration Form Here

In-Person workshops are available at select locations across the state. These half-day workshops cover a portion of the normal full-day topic, but you still get the workbook. Multiple topics will be held in the same location over a week so you can sign up for several different classes at once.

Many of the virtual workshop webinars are from the same full-day workshop but cover different materials. Take both the in-person and virtual portions to get the most comprehensive experience.
NYSERDA CLEAN ENERGY COMMUNITIES (CEC) REGIONAL COORDINATORS

• On August 3, 2016, Governor Cuomo announced the launch of the Clean Energy Communities program, a $16-million initiative to help local governments across the state reduce energy consumption and drive clean energy use in their communities.

• Clean Energy Communities Coordinators are based in each region of the state to help municipal staff navigate the program.
PRIVATE-PUBLIC PARTNERSHIPS

TERM CONTRACTS

- Public agency contracts with private organization to assist with technical support
- Allows more technical expertise
“Governance resilience” builds resilience

State support is key

Peer-to-peer messaging builds trust

Communities need “boots on the ground” to move forward

Education and training is continuous

Further technical assistance may be needed, such as engineering, GIS services, and environmental compliance
NEXT STEPS

WHAT SHOULD THE MODEL INCLUDE

How can we achieve successful implementation of Climate Adaptation and Resilience strategies in New York’s Great Lakes Basin?
PROGRAM MANAGEMENT
CLIMATE ADAPTATION AND RESILIENCE

Master Planning
Connectivity

Ecosystem-based adaptation
Watershed approach framework

Resilience Projects

Nature-based approaches
Preservation of critical areas
QUESTIONS
For additional information or questions:

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