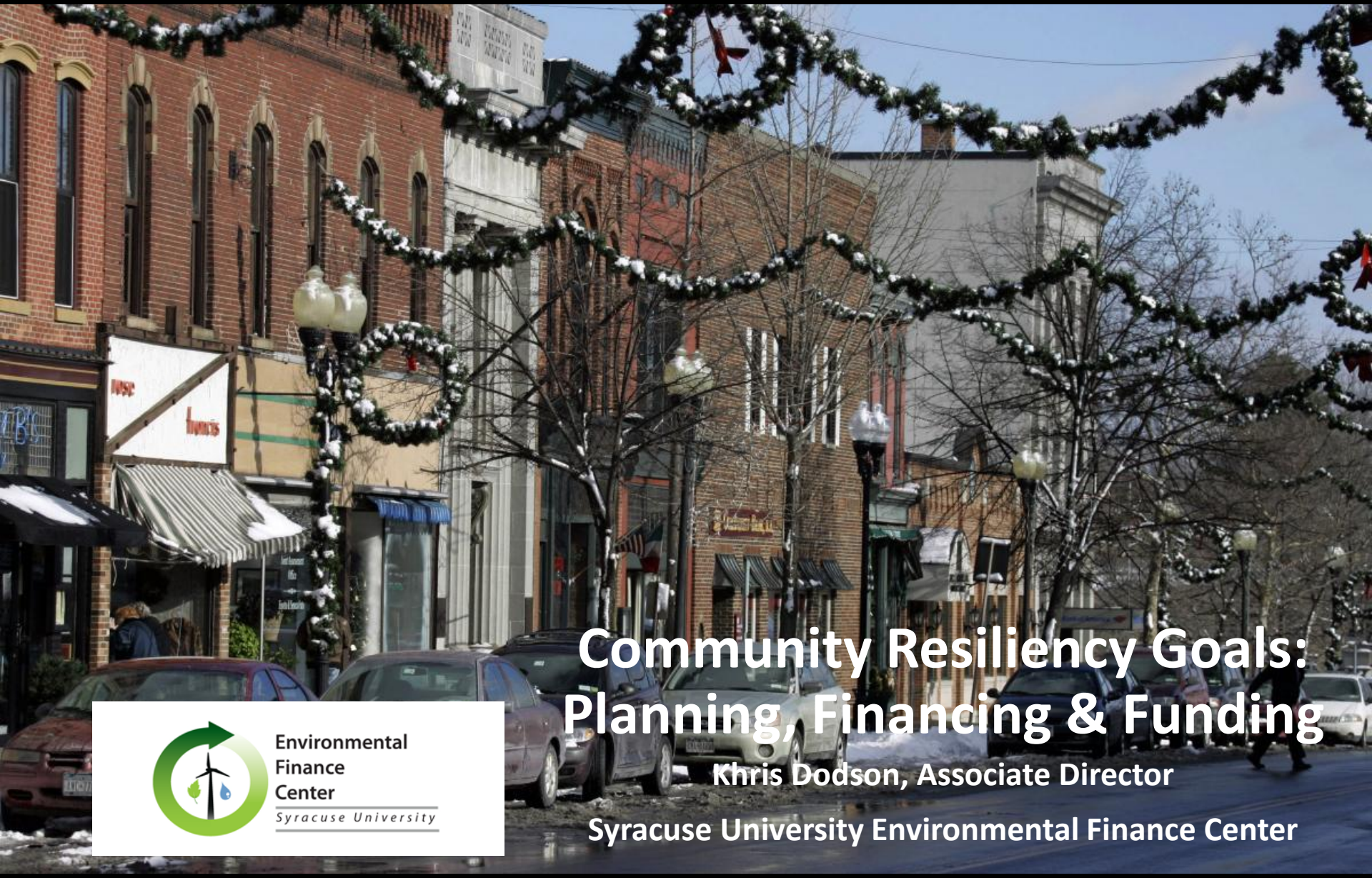


Community Resiliency Goals: Planning, Financing & Funding

Khris Dodson, Associate Director

Syracuse University Environmental Finance Center

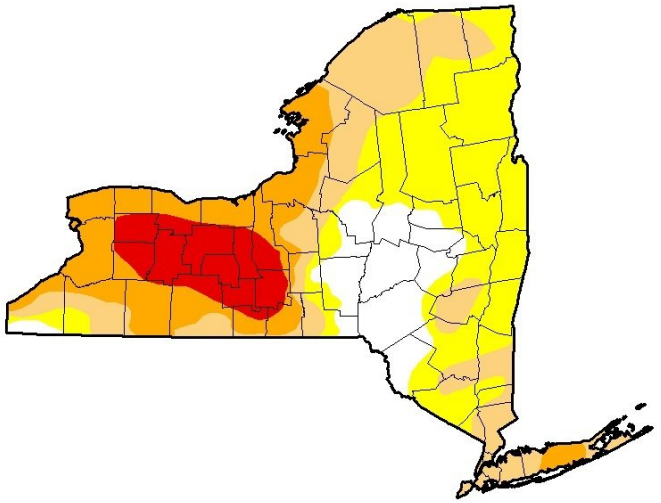
Environmental Finance Center
Syracuse University

Essentially, I am going to talk about:

- Defining Resiliency
- Funding/Financing Resiliency
- Planning Resiliency
- What projects make a community resilient
- Connecting projects to REDC strategic plan/ goals
- Applying to the CFA
- Recently CFA-funded projects in WNY

How Do We Define Resiliency?

- Community resiliency can include:
  - Municipal financial health
  - Community financial health
  - Is your portfolio diversified? Consider:
    - community demographics
    - Commerce
    - relation to neighboring communities
  - Adaptation to {~~Climate~~} Change
  - Environment:
    - water supply,
    - impacts from storms,
    - drought,
    - Social, cultural, and economic changes



How Else Can We Define Resiliency?

How quickly are you able to ‘bounce back’?

Do you need external resources to do so? If so, often?

A resilient community is one in which residents and institutions have the capacity to prepare for, respond to, and recover from events and trends with minimal outside assistance.

4 Rs of Resiliency

- Redundancy
- Robust
- Resources
- Rapid Response

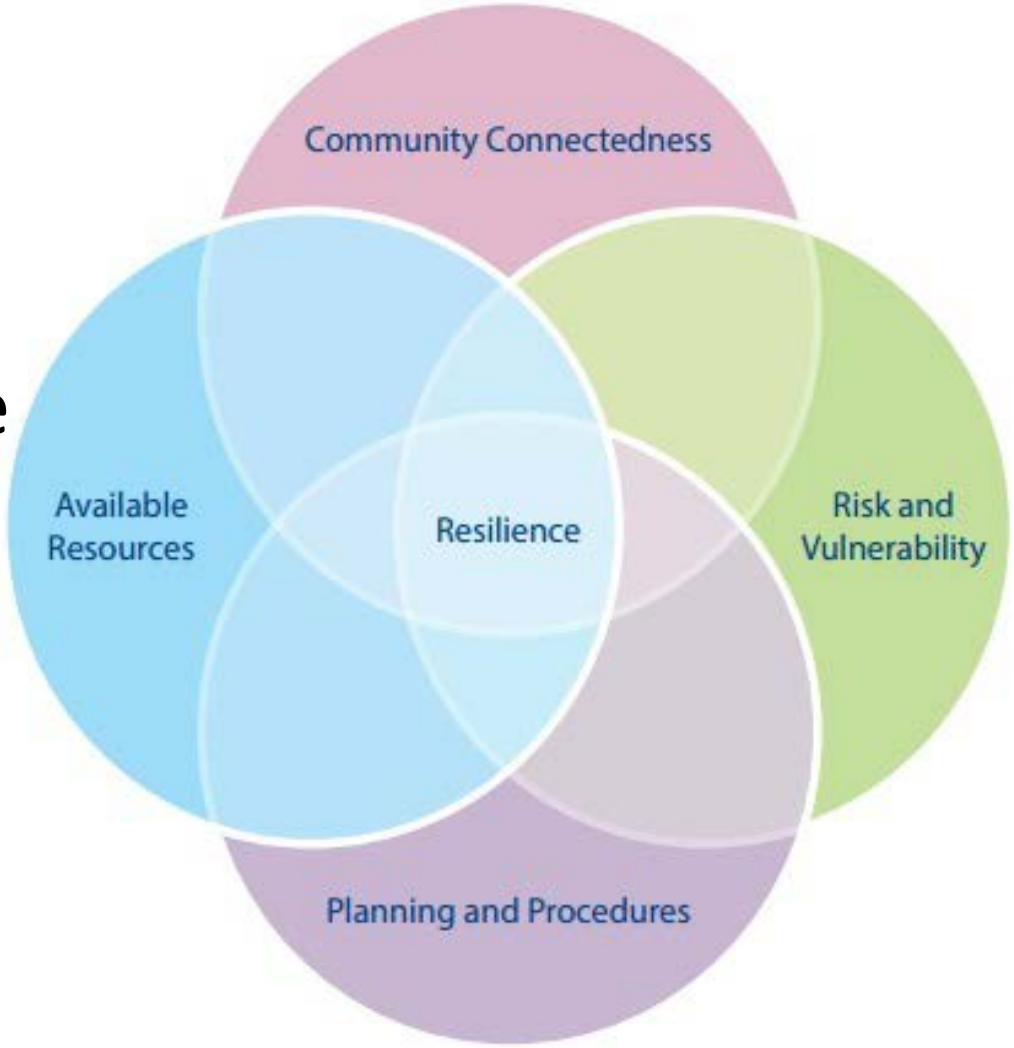


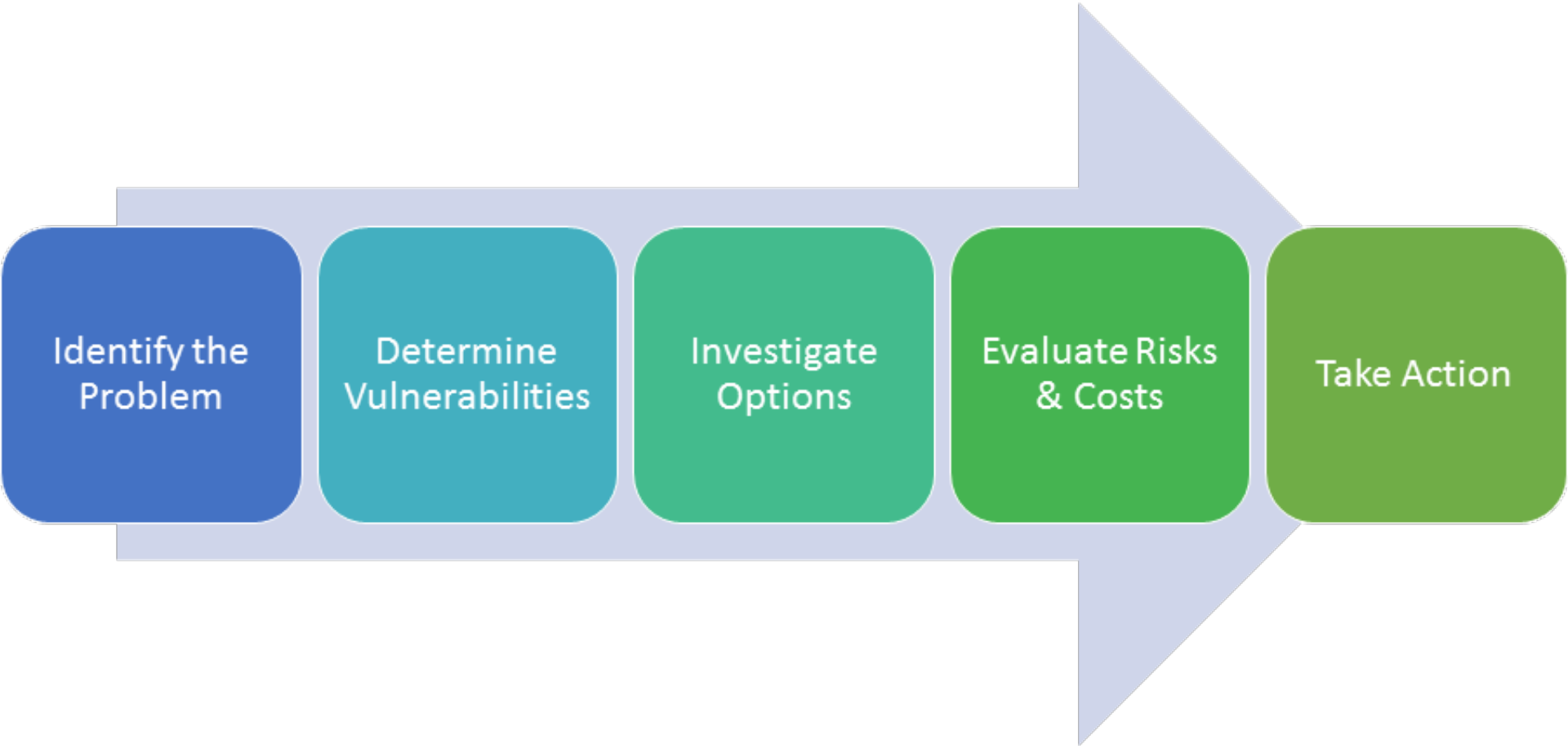
Figure 1. A model for community disaster resilience.

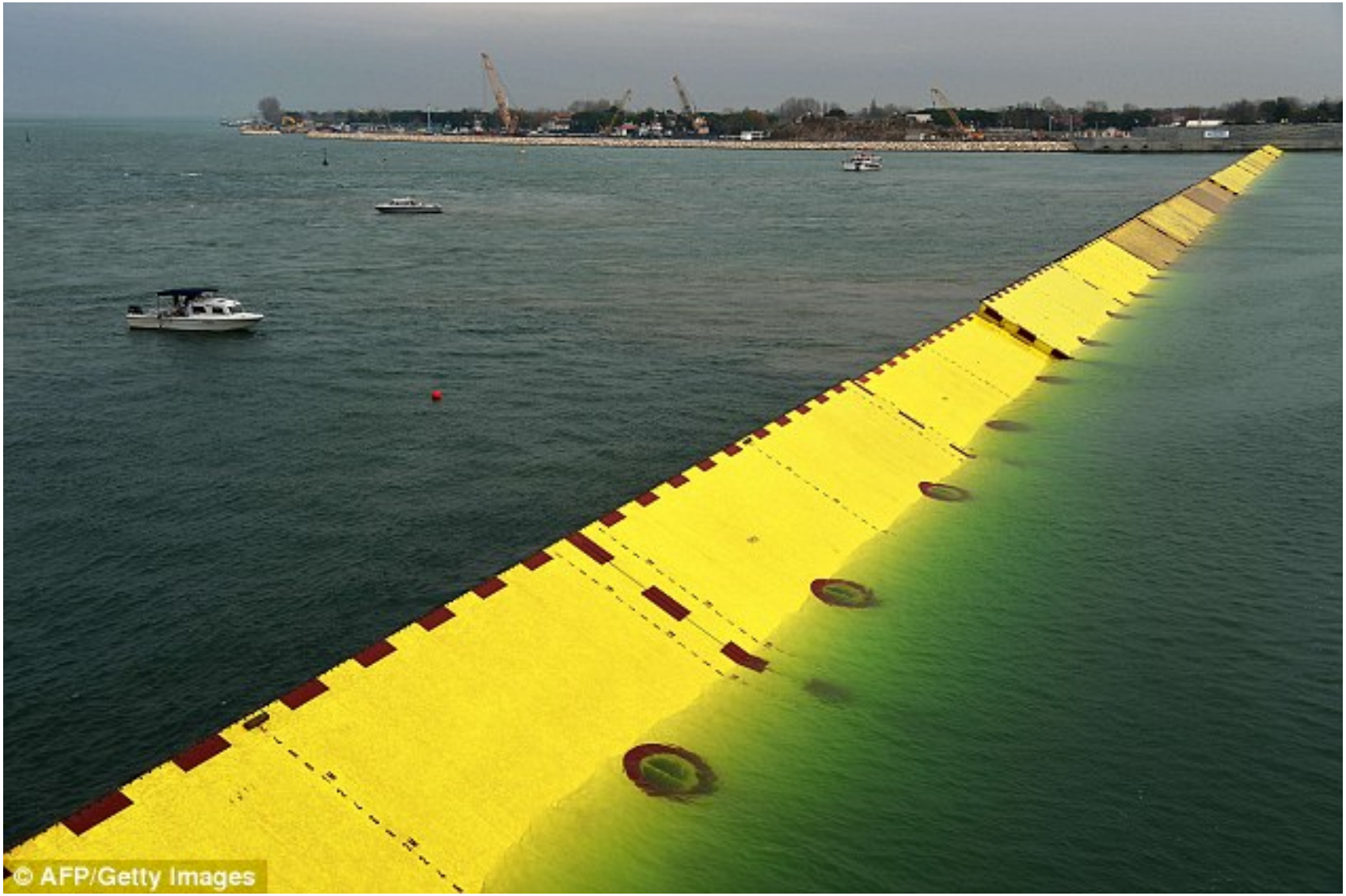
Planning for Resiliency

- Comprehensive Plans
- Zoning
- Asset Management Planning
- Capital Improvement Planning
- Land-Use Planning

RISK ASSESSMENT MATRIX				
SEVERITY / PROBABILITY	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	High	High	Serious	Medium
Probable (B)	High	High	Serious	Medium
Occasional (C)	High	Serious	Medium	Low
Remote (D)	Serious	Medium	Medium	Low
Improbable (E)	Medium	Medium	Medium	Low
Eliminated (F)	Eliminated			

Steps toward Resiliency





Venice Italy: Today

2011: Lourdes Hospital, Binghamton

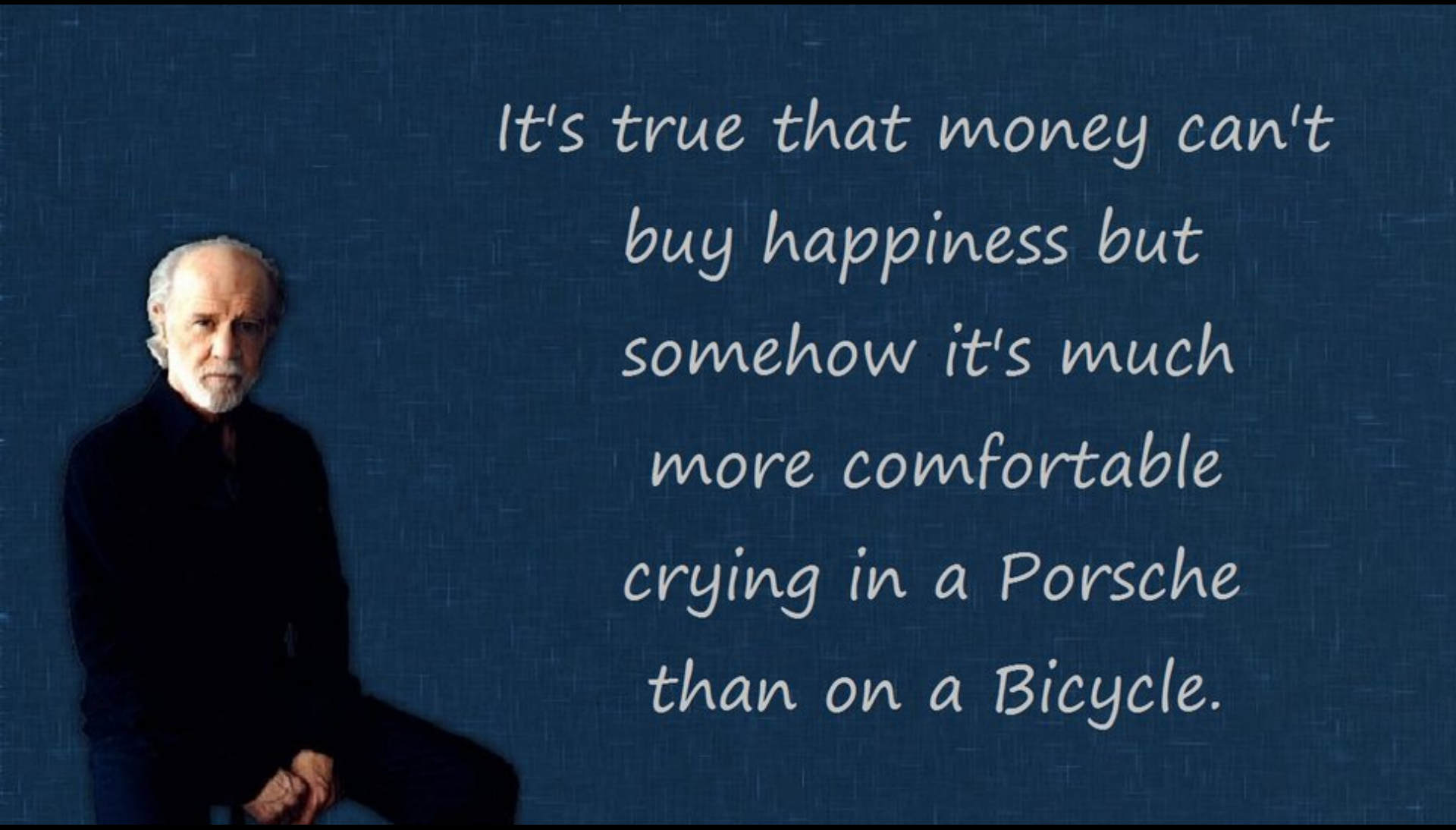
What building resiliency looks like: Binghamton-Johnson City Joint STP Case Study

BJCJSTP's existing measures to protect the plant from high flow events:

- Sand bags as temporary flood barriers
- System performance models
- Weather forecast monitoring
- Emergency Response Plan for flooding events

Potential Adaptive Measures for Binghamton-Johnson City Joint Sewage Treatment Plant

	ADAPTIVE MEASURE	DESCRIPTION	ESTIMATED COST
	Back-up generators	Three (3) back-up generators and diesel storage tanks to provide power for the entire plant and related processes during future power outages.	$50,000 - $150,000
	Alternate wastewater capabilities	Develop redundant treatment processes. Development or replacement could include entire facility or just critical portions to support operations when damage or loss occurs.	$3,000,000 - $10,000,000
	Hydrologic barrier	Develop hydrologic barriers to counter flooding. Manipulating natural landscapes to absorb or redirect flooding is often more aesthetic than building structures. Construction and design must consider projected flood magnitudes and local hydrography.	$750,000 - $1,250,000
	Flood wall	Construct a flood wall for protection against high flow events. Construction and design is 1.5 feet of freeboard above the 2011 storm event level.	$1,750,000 - $4,000,000
	Submersible pumps	Install submersible pumps that will not be significantly impacted by flood waters entering the plant.	$1,500,000 - $3,000,000
	Raise electrical equipment	Raise electrical equipment above the 2011 flood level.	$50,000 - $100,000
	Raise VFDs	Raise the Variable Frequency Drives (VFDs) at least one foot above the 2011 flood level.	$50,000 - $100,000
	Flood risk management plan	Develop phased, adaptive risk management plan for urban flood risks and treatment requirements that will prioritize the ability to limit or prevent damage to the facility during floods. Integrating observations, process models and decision frameworks provides a powerful suite of tools to anticipate potential flood scenarios and deal with flood damage.	$7,500 - $10,000
	Water tight doors	Install water tight doors at critical infiltration points to mitigate impacts of flood waters on plant and equipment.	$200,000 - $500,000
	Permeable pavement	Install permeable pavement at the facility to allow for infiltration of stormwater through the pavement surface reducing runoff (and localized flooding). Could be constructed from porous asphalt, porous concrete, and interlocking pavers.	$100,000 - $350,000
	Flood models	Build integrated flood models for catchments and urban drainage. Beyond many current hydrologic and flood models, these new models should ensure that changing climate conditions can be accommodated in models and that these models include topographic information (GIS) and risk assessment components.	$35,000 - $75,000
	Quick disassembly pumps	Retrofit existing pumps to make it easier to disassemble them and remove them in advance of a flooding event. Costs include the retrofitting and the cost to remove them for one event.	$50,000 - $100,000


It's true that money can't
buy happiness but
somehow it's much
more comfortable
crying in a Porsche
than on a Bicycle.

Invest in things that make you Happy

- House
- Car
- Vacation
- Retirement
- Kids College Fund (or whatever else you do to get them out of the basement)
- Gardening, stamp collecting, beer, a new kitchen

Gold
Jose Cuervo
Especial
GOLD TEQUILA DORÉE
BLUE AGAVE / D'AGAVE BLEU

You can’t (necessarily) buy resiliency

But, you can become resilient by investing in things that will make you so.

- Infrastructure upgrades
- Community planning
- Building capacity
- Economic development

But here are ways you can try…

Organization	Resource Title	Resource Details	Website
Federal Emergency Management Agency	Climate Resilient Mitigation Activities for Hazard Mitigation Assistance	Funding programs to support activities that reduce the risk of climate change such as Aquifer Storage and Recovery, Floodplain and Stream Restoration, Flood Diversion and Storage and Green Infrastructure	https://www.fema.gov/media-library/assets/documents/110202
	Flood Mitigation Assistance	Funding for measures to reduce or eliminate the risk of flood damage to buildings insured under the National Flood Insurance Program.	http://www.fema.gov/flood-mitigation-assistance-grant-program
	Hazard Mitigation Grant Program	Funding for long-term hazard mitigation measures following major disaster declarations.	http://www.fema.gov/hazard-mitigation-grant-program
	Pre-Disaster Mitigation Grant Program	Funding for measures to reduce or eliminate overall risk from natural hazards.	http://www.fema.gov/pre-disaster-mitigation-grant-program
	Public Assistance Grant Program	Federal funding after a presidentially-declared disaster to restore and repair facilities to its original state. The state and local government may be responsible for up to 25% of the eligible cost of the grant.	http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit
U.S. Bureau of Reclamation	WaterSMART Grants	Grants to support water and energy efficiency, system optimization review, advanced water treatment pilot and demonstration and climate analysis tools development.	http://www.usbr.gov/watersmart/grants.html
U.S. Department of Agriculture - Rural Development Water and Environmental Program	Emergency Community Water Assistance Grants	Funding for rural residents who have experienced a significant decline in drinking water quantity or quality to obtain adequate quantities of water that meet the standards of the Safe Drinking Water Act.	http://www.rd.usda.gov/programs-services/emergency-community-water-assistance-grants
	Water and Waste Disposal Loan and Grant Program	Funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal and stormwater drainage to households and businesses in eligible rural areas.	http://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program
	Water and Waste Disposal Technical Assistance and Training Grants	Helps qualified, private non-profits provide technical assistance and training to identify and evaluate solutions to water and waste problems; assist applicants in preparing for loans or grants and assist associations in improving operation and maintenance of existing water and waste facilities in eligible rural areas.	http://www.rd.usda.gov/programs-services/water-waste-disposal-technical-assistance-training-grants
U.S. Small Business Administration	Business Physical Disaster Loans and Economic Injury Disaster Loans	Low-interest loans for private for-profit and private non-profit drinking water and wastewater utilities to help return infrastructure and operations to its pre-disaster operability.	https://www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs/disaster-loans

U.S. Environmental Protection Agency	Federal Funding for Utilities Water/Wastewater in National Disasters (Fed FUNDS)	Fed FUNDS provides information about federal disaster funding programs, as well as funding for incidents that result in disruptions in water or wastewater services or damages to critical infrastructure.	https://www.epa.gov/fedfunds
	Governor's Institute for Community Design	Helps governors and their staff make informed decisions about investments and policy decisions that influence the economic health and physical development of their states.	https://www.epa.gov/smartgrowth/governors-institute-community-design
	Smart Growth Implementation Assistance Plan	Assists communities with exploring barriers to smart growth and to pilot innovative ideas that create more sustainable communities.	https://www.epa.gov/smartgrowth/smart-growth-implementation-assistance
	Water Infrastructure and Resiliency Finance Center	Identifies financing approaches to help communities make better informed decisions for drinking water, wastewater and stormwater infrastructure that meet local needs.	https://www.epa.gov/waterfinancecenter

REGIONAL COUNCILS

Economic Development- strategic changes in the economy…

- Environment
- Social
- Health
- Safety
- Human Capital

Councils- local experts, stakeholders for business, local government, academia, NGOs.

REDCs and You

- Each Region created a strategic plan.
  - Main initiatives
  - Critical issues
  - Challenges
  - Strategies and goals to improve economy

- Align your project goals with regional strategies to get funding!

The Basics

- REDC: Regional Economic Development Councils
- CFA: Consolidated Funding Application
- Gov. Andrew Cuomo created the consolidated funding application in 2011 to streamline the grant application process.
- A single on-line application for dozens of programs from various state agencies.
- Up to $750 million in grants, loans and tax credits were available in previous years. The deadline is July 28th.

REDC and the CFA

Selection Criteria for NYS DEC/EFC Wastewater Infrastructure Engineering Planning Grant		
	Points Assigned	Criteria
Regional Economic Development Priority	20	Alignment with the goals and priorities of its REDC
Performance Measures	40	Severity of existing water quality impairments
Strategies	24	Proposed project is required by a Consent Order, SPDES permit or TMDL
Process	8	Local commitment
Vision	4	Planning project is identified in a formally adopted plan
NYS DEC Regional Priority	4	Alignment with the goals and priorities of the DEC region that the project is located

As soon as possible…

- Have the support of your REDC – submit a white paper or form (depends on region) as soon as a project is identified as viable.
- Align community strategies with REDC strategies
- Get the 20 points!

Guidebook

- Resources announced April or May
- Applications due July 28th

Some popular funding programs

- ESD Grants
  - Infrastructure Investments, Economic Investments
  - Up to 25% of total project costs (Painted Post Trail)
  - ESD also funds strategic planning studies
- HCR
  - Community Development Block Grant (Public Infrastructure, Public Facilities, Planning) 50k-600k
  - New York Main Street – for targeted building renovations (up to 75%/500k) or technical assistance (up to 95%/20k)
- NYS DOS
  - Local Waterfront Revitalization Program – plan development or implementation; hamlets, downtowns, waterfronts
  - Canalway Grants – development along designated canals (50%)
  - Local Government Efficiency

Some popular funding programs

- NYSCA
  - Grants for Arts, Culture & Heritage programs
- NYSERDA
  - Cleaner Greener – Category 2 grants (still money left in this program for sustainability projects such as comp plans, conversion of traffic signals to LED, zoning for smart growth), changes to the program to come in April.
  - Technical Assistance, Energy Assessments, etc.
- OPRHP
  - Parks, Trails, Historic Preservation, Heritage Areas (Very competitive)
  - Recreational Trails (TBD in 2016)

Some popular funding programs

- NYS Ag/Markets
  - Ag district planning grants
- NYS Environmental Facilities Corporation
  - *Wastewater Infrastructure Engineering Planning Grant
  - 30k for planning study (80% + $7,500 local match)
  - WQIP – up to 85% total costs for addressing local water quality improvements.
  - Green Innovation Grant Program (GIGP) – well-funded program for up to 90% of total costs for stormwater street trees, wetland construction, bioretention, stream daylighting, etc.

Some popular funding programs

- USDA Rural Development (not CFA)
  - Water/wastewater
  - Community Facilities
  - Distance Learning Telemedicine
  - Housing Loans/grants

Other places to look

Federal grants

- www.grants.gov

NYS grants

- Check the specific state government agency
- CFA: http://nyworks.ny.gov

Foundation grants

- The Foundation Center
- GrantStation
- Fundbook

Western NY

- Key Strategies:
  - Implement Smart Growth
  - Foster a Culture of Entrepreneurship
  - Prepare our workforce (job readiness)

Recently Funded Project Examples

- Preliminary Engineering Report
  - Village of Wellsville, Allegany County
  - Funded by Housing and Community Renewal CDBG; awarded amount is $50,000.

- Village of Lewiston Local Waterfront Revitalization Program
  - Update its LWRP, adopted in 1989, to address land use and development issues along the waterfront and business district.
  - Department of State $20,250

Recently Funded Project Examples

- Wastewater Treatment Plant Upgrades
  - Village of Little Valley
  - HCR CDBG $600,000

- Downtown Olean Revitalization
  - Olean Business Development Corporation
  - Empire State Development $345,000

Recently Funded Project Examples

- Dutch Hollow Creek Stabilization Project
  - Chautauqua County
  - DEC $482,179

- Town of Eden and Erie County Water Authority Water System Consolidation
  - identify and quantify redundancies in services and then determine a means of eliminating duplication to the benefit of taxpayers.
  - Department of State $25,000

Western NY Contact

- Counties: Allegany, Cattaraugus, Chautauqua, Erie, and Niagara
- Co-Chairs: Satish K. Tripathi (President, U at B) and Howard Zemski (Partner, Larking Development Group)
- 95 Perry Street - Suite 500
  Buffalo, NY 14203-3030
  (716) 846-8200
  (716) 846-8260 Fax
- NYS-WNY-REDC@esd.ny.gov

Be in the know…www.regionalcouncils.ny.gov

Upcoming CFA Workshops

5/4/2017
2:00PM – 4:30PM
Fredonia, SUNY Fredonia

Click here to RSVP

6/5/2017
1:30PM – 4:00PM
Buffalo, Buffalo State College

Click here to RSVP

Consolidated Funding Application Public Information Sessions

Can't make it to one of the CFA workshops in Fredonia or Buffalo? The following information sessions will provide another opportunity to learn more about the available funding programs, selection criteria, and how to access the 2017 Regional Council opportunities using the online application system.

Friday, May 19th	Tuesday, May 23rd	Wednesday, May 31st
10:30 a.m. to 12:00 p.m.	11:00 a.m. to 12:30 p.m.	1:30 p.m. to 3:00 p.m.
Conference Center Niagara Falls – Porter/DeVeaux	Alfred University – Franklin W Olin Building – Room 302	Holiday Valley Resort – Main Lodge – Birdie Room, 2nd Floor
101 Old Falls Street	1 Saxon Drive	6557 Holiday Valley Road
Niagara Falls, NY 14303	Alfred, NY 14802	Ellicottville, New York 14731
RSVP	RSVP	RSVP

Western New York Regional Economic Development Council

Western New York Contact Info

95 Perry Street – Suite 500
Buffalo, NY 14203-3030
(716) 846-8200
(716) 846-8260 Fax
Email Us

Connect

Sign Up for the WNYREDC E-Newsletter

2017 New York State Agency Contact Information

M/WBE Resources

Buffalo Billion Website

Regional Opportunity Agenda

Contact Me!

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315-443-8818