ESTABLISHING RESILIENT ORGANIZATIONS AND PURSUING RESILIENCY FUNDING

American Association of Port Authorities

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WHAT IS RESILIENCE?
Resilience

The capacity of businesses, individuals, communities and systems to sidestep or operate, survive, adapt and grow no matter what kinds of chronic stresses and acute shocks they may face.
An ever changing climate...

Change has become the essential element of our time.

- Lawrence Halprin
So how can we leverage risk to become opportunity?

The Resilience Dividend

Current Mission / Trajectory

Disruption

Systemic Breakdown

Resilience Opportunity
It begins with breaking the response cycle.
Port vulnerability is also dependent upon external interdependencies.
With limited resources and increasing need, how do we prioritize?
FINANCING THE IMPLEMENTATION
Identifying Potential Funding Sources

1. What is out there and available?
   1. Federal Funds – FEMA, HUD, USDOT, EPA, NOAA
   2. State Funds – Louisiana CPRA, Texas GCCPRD
   3. Local Funds
   4. Public-Private Partnerships
   5. The Other Guys – VW Settlement, BP Oil Spill Settlement

2. What is reasonably attainable?

3. Can we go for it?
Why important projects don’t move forward

1. Responsibility and accountability were lacking
2. The project wasn’t valuable to the people who could fund it
3. Not enough time spent developing and executing a funding strategy (perhaps this is an endurance issue?)
4. Too much time passed between initial project excitement and success
How do we succeed amidst these realities?

1. Empower a champion

2. Get scrappy (Build a creative, adaptive, and aggressive funding strategy)

3. Develop a clear and flexible value proposition

4. Use quick wins to build momentum (slice and dice, wherever you can)

5. Build a coalition
Process

Track
Know what money is available

Slice
Understand the projects within a project

Pursue
Go after the money

Leverage
Resources, voices, fund sources to maximize opportunity
Strategy

- Fund Source and Policy Tracking
- Stakeholder Engagement
- Positioning and strategic submittals to maximize ROI
- Active Communication with Gatekeepers

Experts
Understand and Communicate Your Story

Problem Alleviating / Objective

What are we changing? (Existing conditions)

How much and what kind of change? (Project scope)

Who will benefit and how?

How will we know we’ve succeeded? (metrics – may or may not be quantified)

Why should ________ care?
BENEFIT-COST ANALYSIS
HELPING OTHERS SEE THE VALUE
THE BCA HELPS TO JUSTIFY THE EXPENDITURE
THE BCA MEASURES EXPECTED CHANGE OVER TIME

Historic shoreline  Today’s flooding  Future flooding with sea level rise
Capital Costs

Maintenance and Operations

Costs

Duplicated Benefits

Added Risks, Costs and External Impacts
Resiliency  Economic  Benefits

Social  Environmental
Losses Avoided

Economic

Value Added

Social

Environmental
Direct Physical Damages (Structures)

Displacement
- Relocation Costs
- Economic Loss of Function
- Shelter Needs (captured under relocation costs, but numbered)

Public and Essential Facility Loss of Service

Lifeline Impacts
- Communications
- Transportation
- Utilities

Detailed Economic Impacts (direct, indirect, induced effects)
- Economic impacts due to utility loss
- Employment Loss
- Labor Income Loss
- Output Loss

Human Impacts
- Loss of Life
- Mental Stress and Anxiety
- Lost Productivity
EXAMPLES OF VALUE ADDED

Economic Value Added
• Added Employment
• Added Output

Recreational Benefit

Health Benefits

Aesthetic Benefits

Ecosystem Services
• Climate Regulation
• Water Retention
• Air Quality

• Erosion Control
• Pollination
• Food
• Waste Filtration
• Raw Materials
• Water Supply
• Rainfall Interception
• Nutrient Cycling
• Pollution Control
CASE STUDIES
National Disaster Resilience Competition

Promotes risk assessment and planning and will fund the implementation of innovative resilience projects to better prepare communities for future storms and other extreme events.

$1 Billion available nationwide
• 2 Phases
  • Phase 1: Framing Phase
  • Phase 2: Design and Implementation Phase
• Requirement: Presidential Disaster Declaration between 2011 and 2013
• Target areas must meet Most Impacted, Distressed, and Unmet Need thresholds

The “Dry-Line,” winning proposal for NYC by Bjarke Ingels Group & ARCADIS

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The Big U
PROJECTS HAVE MULTIPLE PERSONALITIES
IS THIS AN INFRASTRUCTURE PROTECTION PROJECT?
NYC NDRC Benefit Cost Analysis

Award: $176M

Share of Each Benefit Type by Project

- Multifamily Resiliency Retrofit Program
- NYCHA Stormwater Management and Placemaking
- Coastal Protection for Manhattan Tip
- Coastal Protection for Two Bridges

Benefits:
- 13,151 Affordable Homes Made More Resilient
- 820 Structures Protected From Storm Surge
- 3,228 Tons CO² Reduced Annually
- 18 Million Gallons Stormwater Runoff Reduced Annually
- $433 Million Healthcare Costs Avoided
Norfolk, Virginia Community Transformation Award: $120M

Ohio Creek Watershed

$1.9 BILLION NET PRESENT VALUE BENEFITS

BCR: 7.03
Calcasieu Ship Channel

Louisiana has the largest port complex in the nation.

Cost to expand and maintain the ports escalates each year but the amount of federal appropriations remains constant or decreases.

Calcasieu ship channel connects the Gulf of Mexico to the Port of Lake Charles.

The ship channel is not being maintained – it is silting in – it cannot be utilized at low tide.
Pivoting and Reframing the Project

Instead of channel maintenance funds, we pivot to viewing the channel as an important piece of the coast to sustain.

Area is threatened by an eroding coast partly caused by fresh water intruding into the interior wetlands by the ship channel.

Coastal restoration project that deepens the channel, installs rock structures to maintain a deepened channel, utilizes dredge material to construct wetlands in strategic locations around the ship channel to protect and sustain the structure.
Result

The project was funded as a coastal restoration project as part of the CPRA Master Plan

Award: $150 to $225M

(still in design phase)
Q & A