

**NDRC Resilience Academy
Session Guide**

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NDRC Capacity Building-Initiative

Denver Academy Agenda

Found in Session Guide

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Monday, July 20

Day 1: Resilience Value Identification and Success Definition

8:00-9:00	Breakfast and Registration	<i>Great Hall</i>
9:00-9:30	Introduction and Welcome	<i>Great Hall</i>
9:30-10:30	From Approach to Project: How to Build Resilience in Communities	<i>Great Hall</i>
	Overview of Day 1	
10:30-10:45	<i>Coffee Break</i>	
10:45-1:00	Defining the Resilience Value of Projects	<i>Great Hall</i>
	<i>Exercise 1: Resilience Values, Value Drivers, and Opportunity Statement</i>	
1:00-1:30	Lunch	
1:30-2:45	Expanding the Resilience Value of Projects	
	<i>Track 1: Economy and Society</i>	
	<ul style="list-style-type: none"> • <i>Development strategies that support livelihoods, bolster social stability, and build resilience value in communities</i> • <i>Building collective identity and empowering stakeholders to strengthen community resilience</i> 	<i>Malone Theater</i> <i>Delaplaine</i>
	<i>Track 2: Infrastructure and Environment</i>	
	<ul style="list-style-type: none"> • <i>Rethinking natural systems to reduce physical exposure and improve health, wellbeing, and the environment</i> • <i>Designing projects to ensure continuity of critical services and improve overall resilience of place</i> • <i>Reducing physical exposure and improving livelihoods through the built environment</i> 	<i>ACA/Triax</i> <i>Saeman</i> <i>Bresnan</i>
2:45-3:00	<i>Coffee Break</i>	<i>Great Hall and Mezzanine</i>
3:00-5:30	Designing Innovative Resilience Projects	<i>Breakout Rooms</i>
5:30-6:30	Reception	<i>Great Hall</i>

Tuesday, July 21

Day 2: Resilience Project Analysis and Design

Found in Session Guide

~~Found in Exercise Guide~~

7:30-8:00	Breakfast	<i>Great Hall</i>
8:00-8:15	Overview of Day 2	<i>Great Hall</i>
8:15-10:00	Design-Focused Critique	<i>Room TBD</i>
10:00-10:30	Team Re-Group and Defining Project Issues	<i>Breakout Rooms</i>
10:30-12:00	Evaluating and Defining Resilience Project Components	<i>Breakout Rooms</i>
	<i>Track 1:</i>	
	<ul style="list-style-type: none"><i>Benefit-Cost Analysis</i>	
	<i>Track 2:</i>	
	<ul style="list-style-type: none"><i>2A: Policy, Regulatory, and Procedural Planning</i><i>2B: Stakeholder Mapping and Communications</i>	
12:00-1:30	Lunch, NOFA Review, and Q&A	
1:30-3:00	Evaluating and Defining Resilience Project Components	<i>Breakout Rooms</i>
	<i>Track 1:</i>	
	<ul style="list-style-type: none"><i>Innovative Financing</i>	
	<i>Track 2:</i>	
	<ul style="list-style-type: none"><i>2A: Stakeholder Mapping and Communication</i><i>2B: Policy, Regulatory, and Procedural Planning</i>	
3:00-6:00	Team Re-Group: Bringing It All Together	<i>Breakout Rooms</i>
4:00-6:00	Site Visit – Optional	

Wednesday, July 22

Day 3: Resilience Project Selection Plan

Found in Session Guide

Found in Exercise Guide

9:00-10:00	Breakfast	<i>Great Hall</i>
	Panel: Lessons from 100RC	
	Overview of Day 3	
10:00-12:00	Team Re-Group: How Are We Going to Get There – Concurrent	<i>Great Hall and Bresnan</i>
10:00-12:00	Project Critique: Getting Feedback on Resilience Project Proposals – Concurrent	
	<i>Critique 1</i>	<i>Malone Theater</i>
	<i>Critique 2</i>	<i>Kahn</i>
	<i>Critique 3</i>	<i>Delaplaine</i>
	<i>Critique 4</i>	<i>ACA-Triax</i>
	<i>Critique 5</i>	<i>Saeman</i>
12:00-12:30	Lunch and Wrap-Up	<i>Great Hall</i>
	Additional NOFA Q&A	

Overview

The Resilience Academy will draw on a wide range of subject matter experts to guide teams through three major elements of the workshop:

1. Team Exercises
2. Elective Sessions
3. Classroom Sessions
4. Critiques

1. Team Exercises

The exercises are structured to help teams develop an NDRC Phase 2 project that maximizes resilience value. Each jurisdiction will work through a series of structured exercises that establish the inputs to develop a “Resilience Project Selection Plan.” **Instructions for completing the Academy Exercises are included in the separate Academy Exercise Guide.**

Each team will be assigned one facilitator and two or more subject matter experts (SMEs) to work with them on exercises throughout the Academy.

- **Subject matter experts (SMEs)** will provide specific subject and/or technical knowledge over the course of the Academy to help teams develop their proposals. They will support facilitators during guided exercises and/or step in to facilitate as necessary.
- **Facilitators** are SMEs who will lead a state, county, or city team of 3-5 people through developing and refining their project ideas over the course of the Academy. Day 1 will consist largely of facilitator-guided exercises to help teams identify and expand the resilience value of their projects. Facilitators are skilled at guiding discussions, general project planning and development, and are knowledgeable about resilience concepts.

To the extent possible, given the need for some facilitators to provide support in elective and classroom sessions and critiques, facilitators will support a single jurisdiction throughout the Academy.

2. Elective Sessions

During Day 1, teams will split up to attend “Elective Sessions.” During these breakout sessions, facilitators and SMEs may play one of two roles:

- **Session leaders:** Some facilitators and SMEs have been asked in advance to prepare and present content during the elective and classroom sessions.
- **Supporting SMEs:** Some SMEs have been assigned to elective and classroom sessions to answer questions and support teams after presentations.

Those facilitators not presenting may want to refine teams’ working session outputs.

3. Classroom Sessions

During Day 2, teams will split up to attend one of two “Classroom Sessions”: one focused on Project Finance and the other on Project Policy and Engagement. These classrooms will be a mix of presentations

and exercises supported by facilitators and SMEs in the relevant topic area. Those facilitators and SMEs assigned to a classroom will leave their team during these sessions.

4. Critiques

During Day 2, teams will participate in a Design-Focused Critique. During Day 3, they will participate in a Project Critique.

Day 1: Elective Sessions

Time: 1:30pm-2:45pm (75 minutes)

MOVEMENT INSTRUCTIONS:

- **Teams** should split up and individual team members should attend the sessions most relevant to them. **To the extent possible, we recommend that teams cover all sessions.**
- **Facilitators and SMEs** should go to the sessions most relevant to them. **HOWEVER, facilitators should complete the Exercise 1 synthesis for their teams before joining sessions.**

Objectives

Elective sessions will take place on the afternoon of Day 1. They aim to expose participants to a range of innovative projects and techniques that may inform the design of their NDRC project. Elective sessions are organized in terms of two tracks.

Track 1: Economy and Society

- **Elective #1:** Development strategies that support livelihoods, bolster social stability, and build resilience value in communities
- **Elective #2:** Building collective identity and empowering stakeholders to strengthen community resilience

Track 2: Infrastructure and Environment

- **Elective #3:** Rethinking natural systems to reduce physical exposure and improve health, wellbeing and the environment.
- **Elective #4:** Designing projects to ensure continuity of critical services and improve overall resiliency of place
- **Elective #5:** Reducing physical exposure and improving livelihoods through the built environment

Structure

All sessions will follow the same general structure:

1. The session lead frames the discussion.
2. Session presenters share cases, which represent a range of project scales and types. Presentations will highlight resilience value, challenges, and lessons learned.
3. Session presenters will conduct a Q&A and/or lead a discussion with teams to tease out presentation themes and how they relate to the project ideas put forward by jurisdictions.

Each presenter's case will answer the following questions:

- **What problem and/or risks did the project aim to address?** *"This was the problem we were trying to solve."*
- **What are the resilience values of the project? What are the value drivers?** *"These were the aspirations of the project and how we thought we could achieve them."*

- **What is the project? What are its major components?** *“...This is the project we designed to achieve those values.” Highlight where applicable: mapping and data visualization, integrated design thinking, community and stakeholder engagement, risk-specific physical tools, risk-specific soft tools, and alignment of value creation across multiple systems.*
- **How did the project evolve from project design to implementation?** *“...In designing this project we discovered_____, we learned_____.”*
- **How did the project contribute to building resilience? What were the project outcomes?** *“...This project built the resilience of place X by _____. This project was unique or innovative because_____.” Use the “City Resilience Framework” as a reference for understanding the project impacts across systems.*

ELECTIVE #1

Development strategies that support livelihoods, bolster social stability, and build resilience value in communities

Time: 1:30pm-2:45pm (75 minutes)

Presenters

Michael Hecht (<i>lead</i>)	Greater New Orleans, Inc.
Lacy Strohschein	Greater New Orleans, Inc.
Sara James	National Association of Development Organizations
Andrew Geer	Enterprise Community Partners
Jamie Torres Springer	HR&A Advisors, Inc.

Objectives

This session will present a framework for preserving and enhancing economic value in resilience projects. After the session lead frames the discussion, presenters will each share a case that exemplifies how different components of economic resilience supported broader resilience in their communities through a systems approach. Cases will highlight workforce development, entrepreneurship, commercial districts and small business support, real estate, and housing development.

Agenda

1. **Opening Remarks and Framing** (5 minutes – Michael)
 - a. A resilient economy is one that is able to rapidly recover from disasters and other shocks with minimal outside assistance.
 - b. A “radically resilient” economy can bounce back and achieve a higher growth rate.
 - c. Communicating economic value in resilience activities can help to build coalitions to engage business leaders who are a missing voice in coastal restoration and resilience advocacy.
 - d. Core components of economic resilience:
 - i. Clear Associations between **Risk Aversion and Economic Value** that attract investment and build stakeholder interest;
 - ii. Strong connections to **Workforce Development** that engage local residents and meet industry demand;
 - iii. Commitment to fostering **Entrepreneurship** that creates new jobs and fosters innovation;
 - iv. Organized **commercial business districts** that are able to serve the community and generate revenue;
 - v. **Housing** affordability and mix of uses that builds community and meets economic growth needs.
2. **Case Presentations** (40 minutes – Michael/Lacy, Sara, Andrew, Jamie)
3. **Discussion and Q&A** (30 minutes – Michael)

Cases

- Workforce development: New Orleans, LA certificate program**
(Michael Hecht and Lacy Strohschein)
- Creation of a certificate program for needed coastal science/engineering jobs to implement projects that reduce risk to region.
- Fostering entrepreneurship: Power Moves, New Orleans and Detroit**
(Michael Hecht and Lacy Strohschein)
- Program that recruits minority entrepreneurs for pitch competitions, panels, boot camp, and networking. Utilizes a mix of private sponsorships with HUD CDBG-DR funding.
- Small businesses and commercial districts: Rebuilding in Springfield, MA**
(Sara James)
- Using disaster as an opportunity, Springfield adopted its recovery plan as a citywide master plan and incorporated a recovery-specific revolving loan fund for businesses. The city also updated zoning codes to ensure rebuilding could maintain its historic charm.
- Housing development: Eastern Market, Detroit**
(Andrew Geer)
- Eastern Market is the nation's longest-running open air market. Case will focus on how the city leveraged the food economy as an economic development driver. Mixed-use project including affordable housing and coordinated green infrastructure, with heavy emphasis on greenways and storm water management.
- Small business support and economic development: The Rockaways, New York City**
(Jamie Torres Springer)
- The Rockaway Peninsula was one of the hardest-hit areas in NYC during Superstorm Sandy, and is also one of the most at-risk from future storms and climate change. Case will focus on the initiatives taken in the short- and long-term to build value and business organization in the Rockaways.

ELECTIVE #2

Building collective identity and empowering stakeholders to strengthen community resilience

Time: 1:30pm-2:45pm (75 minutes)

Presenters

Sam Carter (<i>lead</i>)	The Rockefeller Foundation
Antwi Akom	I-SEED/Streetwyze
Aekta Shah	I-SEED/Streetwyze

Objectives

This elective session will present strategies to build social resilience by partnering with community groups, supporting the open exchange of information and ideas, and performing design interventions that create spaces for collective decision-making and community self-determination. These strategies will be explored through relevant cases. The developers of a crowdsourced mapping tool will present their platform and how it can be used to encourage equitable engagement in resilience projects.

Agenda

- 1. Opening Remarks and Framing (15 minutes - Sam)**
 - a. How strong, healthy communities fit into the City Resilience Framework
 - b. Three key strategies for incorporating social resilience into projects:
 - i. Partner with and invest in existing groups/associations in the target area that are engaged with vulnerable populations
 - ii. Connect people to each other and enable the open exchange of information and ideas
 - iii. Design interventions to create spaces for collective decision-making and community self-determination
 - c. Review of HUD/federal panel critiques of Phase 1 applications, with emphasis on why social resilience is critical to NOFA rating factors
- 2. Presentation of Crowdsourced Mapping Platform (30 minutes –Antwi, Aekta)**
 - a. Need for crowdsourced tools, because traditional data collection techniques often does not count some populations, especially vulnerable populations
 - b. How crowdsourced tools, including the Streetwyze mapping platform, gather more comprehensive data and engage communities in the process
- 3. Discussion and Q&A (30 minutes)**

Presenters will facilitate discussion among all session participants, soliciting examples from jurisdictions, using these prompting questions as a starting point:

 - a. Have any teams used this or similar tools as part of information gathering for their Phase 1 applications? What was their experience?
 - b. How can teams use crowdsourced and/or mapping tools in their projects to engage with target and vulnerable populations?
 - c. What are the challenges associated?
 - d. Who are the organizations and individuals within your jurisdictions who would likely have access to and interest in using crowdsourcing/mapping tools? Who would not?

- e. How can jurisdictions broaden access, so that they produce data and information that is reflective of diverse communities and the needs of vulnerable groups
- f. What are the advantages of using platforms like Streetwyze vs. more traditional data-gathering and mapping (i.e. top-down, from City Planning departments)? What are the disadvantages or challenges associated?

ELECTIVE #3

Rethinking natural systems to reduce physical exposure and improve health, wellbeing and the environment

Time: 1:30pm-2:45pm (75 minutes)

Presenters

Pippa Brashear (<i>lead</i>)	SCAPE Landscape Architecture
Will Norman	CDM Smith
Dana Coelho	U.S. Forest Service
Scott Campbell	Harvard/Lincoln Institute

Objectives

This session will feature projects that leverage natural systems, including watersheds, coastal ecologies, and forests. Presenters will each share cases that demonstrate innovations in environmental management to reduce human exposure to natural hazards, protect natural resources, and present new opportunities to improve the health and wellbeing of communities and ecologies. Presenters draw from a wealth of experience in the public, private and non-profit sectors and work at scales ranging from site-specific to regional.

Agenda

1. **Opening Remarks and Framing** (5 minutes – Pippa)
 - a. Natural systems are important to building resilience because they innately provide many resilient qualities – redundancy, diversity, flexibility etc.
 - b. In a world with increasing risk and limited resources, understanding how to work with natural systems helps us smartly and efficiently manage risks.
 - c. Natural systems also help us manage risk in a way that is sensitive to people and place and create identity around our built environment.
2. **Case Presentations** (30 minutes – Scott Will, Dana)
3. **Discussion and Q&A** (30 minutes – Facilitated by Pippa)

Cases

Kansas City Green Infrastructure Program (Will Norman)

As a major component of Kansas City, Missouri's CSO program, CDM Smith was hired to design Green Infrastructure (GI) solutions within the Marlborough neighborhood, as the primary CSO control technology to comply with the Federal Consent Decree requirements. Gathering input from the neighborhood community, CDM Smith designed storm water detention and infiltration systems with flood reduction benefits as well as integration into a larger place enhancing strategy with recreational amenities, landscape beautification features, streetscapes, pedestrian trails, historical preservation elements, water reuse opportunities, gateway entrances and redevelopment opportunities.

Forest to Faucets Partnership
(Dana Coelho)

A partnership between the U.S. Forest Service and local water utilities to restore forest and watershed health and proactively plan for post-wildfire response actions intended to protect municipal and agricultural water supplies, infrastructures and facilities, water delivery capabilities and hydro-electric power generation. Forest and watershed restoration activities and proactive planning can help minimize sedimentation impacts on reservoirs and other water and hydro-electric infrastructure by reducing soil erosion and the impacts of wildfires, helping water managers avoid costs for dredging, water filtration, and the need to replace damaged infrastructure.

**Palmer Land Trust/Shortgrass
Prairie Initiative**
(Scott Campbell)

The Shortgrass Prairie Initiative focuses on protecting the prairie lands of the Lower Arkansas Valley and riparian corridors that feed the Arkansas River in El Paso, Pueblo, Fremont, Otero, and Crowley counties. These working lands represent some of the older family ranch lands in the state and protect some of Colorado's most threatened habitat.

ELECTIVE #4

Designing projects to ensure continuity of critical services and improve overall resiliency of place

Time: 1:30pm-2:45pm (75 minutes)

Presenters

Josh Sawislak (<i>lead</i>)	AECOM
Rima Kasia Oueid	U.S. Department of Energy
John Atkinson	ARCADIS
Tom Jost	Parsons Brinkerhoff

Objectives

This session will focus on projects that involve the construction of or rehabilitation of infrastructure. Session presenters will share cases that demonstrate how engineered solutions to risk management can ensure the continuity of critical services, while also creating multiple additional benefits. This session focuses on projects that involve the construction or rehabilitation of infrastructure fundamental to the continuity of economic and social systems. Considering supply chain, energy distribution, and transportation systems, session presenters will demonstrate how engineered solutions to risk management can support mobility, maintain networks, and create community assets.

Agenda

- 1. Opening Remarks and Framing (5 minutes – Josh)**
 - a. Historically, building infrastructure has been about the technology itself – roads that speed traffic, sewers that move water, etc.
 - b. However, increasingly, we understand that infrastructure is about serving people and understanding how their survival and quality of life can best be supported by smart physical and operational investments.
- 2. Case Presentations (40 minutes – Rima and John)**
- 3. Discussion and Q&A (30 minutes – Facilitated by Josh)**

Cases

NJ Transit Grid (*Rima Kasia Oueid*)

The NJ Transit system is a critical transportation corridor and evacuation route for Manhattan. Superstorm Sandy, Hurricane Irene and other natural disasters have exposed the vulnerability of the transit system to power outages. The State of New Jersey, NJ Transit, and the NJ Board of Public Utilities partnered to assess NJ Transit's energy needs and develop a conceptual design of an advanced micro grid system. The U.S. Department of Energy and Sandia National Laboratories will work with NJ Transit and the Board of Public Utilities to design a dynamic micro grid to power the transit system between Newark and Jersey City and Hoboken, as well as critical stations and maintenance facilities. This project will make it easier to get the power back on after a major disaster and improve public safety throughout the region.

**Evaluating Risk Along
Infrastructure Lifelines: Oil
and Gas Pipeline Network**
(John Atkinson)

Lifelines are defined as the transportation and utility infrastructure that provide communities with communications, water, power, mobility, and other necessities for both continuity of governance and economic health. Critically, lifelines are distributed over wide areas and their value is derived from their connectivity. The team evaluated the vulnerability of an oil and gas pipeline network within a coastal flood plain, in order to allow operators to prioritize mitigation activities, high-water action plans, and post-storm inspections. Within coastal floodplains, large segments of pipeline networks are potentially affected by erosion impacts, resulting from the combined effects of sea level rise and subsidence and from episodic scour from currents and wave forces. The team used GIS data analysis and computer simulation to estimate potential land loss due to hydrodynamic and wave conditions from a range of statistically probable hurricane storm events. The team combined data on maximum potential scour depth; pipeline segments located within actively retreating or eroding areas of the coast; and third-party activities related to shipping, dredging, and construction of adjacent projects to examine the spatial character of the pipeline network's vulnerability.

**Alaskan Way Viaduct and
Seawall Replacement, Seattle
Waterfront**
(Tom Jost)

For the Washington State Department of Transportation (WSDOT), Parsons Brinkerhoff replaced the seismically vulnerable viaduct running along the Seattle waterfront with approximately 1 mile of new elevated roadway, connecting to a bored 56-foot-diameter tunnel approximately 2 miles long with a stacked interior roadway beneath the downtown. The team led a rigorously inclusive public involvement program to help define and communicate project goals and develop political consensus. Tunnel construction began in late 2011 under a design-build contract. Completion is scheduled for late 2015.

ELECTIVE #5

Reducing physical exposure and improving livelihoods through the built environment

Time: 1:30pm-2:45pm (75 minutes)

Presenters

Thad Pawlowski (<i>lead</i>)	Columbia Graduate School of Architecture and Planning
Suzanne Anarde	Local Initiatives Support Corporation
Tom Osdoba	Enterprise Community Partners
Scott Jordan	civitas

Objectives

This elective session will focus on the building blocks of resilience: buildings, blocks, and neighborhoods. Presenters will demonstrate how resilient thinking integrated into the design and planning process for urban and rural development can yield economic, social, and ecological benefits. Presenters will share projects at scales ranging from buildings to large-scale waterfront redevelopment, which affect the built environment by regulation, pilot project, and community based redevelopment. Cases will also focus on serving the housing and community needs of at-risk populations in rural, tribal, and urban areas.

Agenda

1. **Opening Remarks and Framing** (5 minutes – *Thad*)
 - a. Defining and planning for resilient neighborhoods
2. **Case Presentations** (40 minutes – *Suzanne, Tom, and Scott*)
3. **Discussion and Q&A** (30 minutes – *Facilitated by Thad*)

Cases

Sustainable Native Communities Collaborative (<i>Jamie Blosser</i>)	The Sustainable Native Communities Collaborative, an initiative of Enterprise Community Partners, supports culturally and environmentally sustainable affordable housing for American Indian communities nationwide. Through technical assistance and research of best practices, the Collaborative helps tribal communities reduce their impact on the natural world, gain self-sufficiency, and gain access to culturally appropriate, healthy and affordable homes.
Arkansas River Buy-Out (<i>Suzanne Anarde</i>)	A community-based effort to reduce risk through a relocation program and flood mitigation efforts in rural Colorado.
Enterprise Green Community Standards (<i>Tom Osdoba</i>)	Through its Green Community Standards program, Enterprise has been working to align affordable housing investment strategies with environmentally responsible building practices, so that people living in affordable housing are healthier, spend less money on utilities, and have more opportunities through connections to transportation, quality food and health care services. Enterprise recently incorporated resilience principles into these standards.

LA River Revitalization
(Scott Jordan)

Working with a complex group of city, county, state, federal, public and private stakeholders, Civitas led a public process to support full approval of a master plan to revitalize 32 miles of channelized river. The plan envisions lowering the concrete walls to create trails, rain gardens, habitat and recreational spaces, using terraces and ramps to retain flood protection while creating safe public access. With eventual flood attenuation upstream the bottom of the channel will become a soft river bottom again, returning aquatic life and sediment transport into a functioning riverine ecosystem.

Day 2: Design-Focused Critique

Time: 8:15am-10:00am (1 hour and 45 minutes)

MOVEMENT INSTRUCTIONS:

- **Facilitators and SMEs** should proceed with their teams to their assigned rooms.
- **Additional experts should float.**

Objectives

The objective of the critiques is to have the experts offer teams constructive criticism on how to improve the resilience value of their Phase 2 project design. Note that “design” encompasses both physical and programmatic design.

Structure

During the Design-Focused Critique, each team will have a 35-minute slot to present their project and receive feedback. Team members will first share their design, building on the outputs from their Day 1 exercises and working sessions, for 10-12 minutes. Teams should use **Worksheet: Designing a Phase 2 Project** to present their design.

After each team presents, the mix of SMEs and teams in the room will ask the team questions. These questions could include:

- How are you maximizing your resilience value?
- How does this project “tie back” to your Phase 1 approach?
- What’s the most innovative idea in your project? Can you go further?

SMEs and teams should refer to the **Academy Exercise Guide** for additional questions.

Agenda

8:15-8:50 am	Team 1
8:50-8:25 am	Team 2
8:25-10:00 am	Team 3

Day 2: Classroom Sessions

Time: 10:30am-12:00pm, 1:30pm-3:00pm

MOVEMENT INSTRUCTIONS:

- **Teams** should split up and send members to Track 1 and Track 2 A or B (see table below for assignments).
- **Some facilitators and SMEs are needed to support on content in specific classrooms, and should go to these classroom.** If they are not assigned to a specific classroom, they should stay with their teams.
- **Session presenters** for Track 1 will stay in the same room. **Session presenters** for Track 2A and 2B will switch rooms after the first session.

	Track 1: Project Finance	Track 2: Project Policy and Engagement	
		Room A	Room B
Attendance	<i>Teams 1-24 send up to 3 members from each team</i>	<i>Teams 1-12 send up to 2 members from each team</i>	<i>Teams 13-24 send up to 2 members from each teams</i>
Session 1	Benefit-Cost Analysis	Policy, Regulatory, and Procedural Planning	Stakeholder Mapping and Communications
Session 2	Innovative Financing	Stakeholder Mapping and Communications	Policy, Regulatory, and Procedural Planning

Objectives

Classrooms will take place through the middle of Day 2. They are intended to give participants an opportunity to integrate project framing with project lifecycle planning and develop strategies to overcome barriers to success.

Structure

All sessions will follow the same general structure:

1. The session lead will offer a framework for approaching the topic.
2. Team members will complete an exercise together, with the assistance of the session presenters and supporting SMEs.

If facilitators are still with their team members, they should help guide them through the exercise. If team members are missing their assigned facilitator, the supporting classroom SMEs should step in to guide the team members.

CLASSROOM TRACK 1

PRE-WORK

Time: 10:30am-11:10 pm, 40 minutes

Presenter

Jamie Torres Springer HR&A Advisors, Inc.

Before Session 1: Benefit-Cost Analysis begins, team members need to complete **Handout: Identifying Project Benefit Categories** and **Handout: Identifying Project Cost Categories** to define their costs and benefits. Full instructions are in the **Academy Exercises Guide**, and team members should work together.

Supporting Documents

- **Handout: Identifying Project Benefit Categories**
- **Handout: Identifying Project Cost Categories**

CLASSROOM TRACK 1

Session #1: Benefit-Cost Analysis

Time: 11:10am-12:00pm and 1:30pm-1:50 pm (70 minutes)

Presenters

Matt Chadsey	Earth Economics
Josh Reyneveld	Earth Economics
Zac Christin	Earth Economics

Objectives

This classroom session will help teams outline elements of the benefit cost analysis (BCA) for their proposed project. Teams will leave with a foundation to complete their BCA, an understanding of the categories that need to be considered as applied to their projects, and direction on the research that needs to be undertaken to complete this task.

NOTE: As this session pivots from the framing of Day 1 into the implementation and NOFA focus of Day 2, this session will utilize similar terms with different meanings as restricted by the NOFA. Most prominently, this session will make reference to *resiliency value* (as opposed to *resilience value*). Resiliency value “includes value of protection from the effects of future/repeat disasters, including, but not limited to, flood, wind, fire, earthquakes.” It is about the avoided costs from disasters, and not about the other social, economic, and environmental benefits, which are broken out into their own categories within the NOFA.

Structure

Matt Chadsey of Earth Economics will open the session with a presentation of the BCA components and provide illustrative examples for each benefit and cost category outlined in the NOFA. Teams will have time to ask clarifying questions about methodological approaches to determining quantitative values for identified costs and benefits. Team members will then complete a guided exercise to identify the benefits and costs of their projects that can be expressed in monetary terms, quantified, and qualitatively explained.

Agenda

1. **Opening Remarks and Framing (25 minutes, Earth Economics)**
 - a. Benefit cost analysis overview
 - i. Benefit-cost categories
 - ii. Difference from other agency benefit-cost analyses
 - iii. High-level BCA steps
 - iv. Gathering the data
 - v. Framing the analysis
 - vi. Basic assumptions
 - vii. Justifying a lower discount rate

- b. Benefit-cost methodologies examples by category
 - i. Resiliency value
 - ii. Environmental value
 - iii. Social value
 - iv. Economic revitalization value
2. **Brief Q&A** (*10 minutes*)
3. **Exercise** (*35 minutes, Facilitators or Supporting SMEs*)

Supporting Documents

- **Handout: Crafting the BCA**
- 1 copy of Appendix H of the NOFA per table

CLASSROOM TRACK 1

Session #2: Innovative Financing

Time: 1:50pm-3:00 pm (70 minutes)

Presenters

Phillip Bush
Shalini Vajjhala

Enterprise Community Partners
re:focus

Objectives

This classroom session will help teams develop a strategy for how they will finance their planned resilience project—drawing on the resilience value that it creates—and an approach for how they will develop their ability to finance future resilience projects. Both objectives are fundamental to strong Phase 2 applications.

The session will present an iterative framework for helping teams think through their financing strategy. The framework considers available financing sources (private, philanthropic, public); benefit categories that are appealing to different financing sources; and cost categories that are better covered by different financing sources.

Structure

Shalini Vajjhala of re:focus will open the session with an innovative resilience financing case study. Phillip Bush of Enterprise will then briefly summarize the challenges associated with resilience financing, and present a framework for helping teams think through their financing strategy.

Team members will complete a guided exercise to determine their major cost categories; match cost categories to committed sources; assess their gaps; consider project benefits and how appealing they are to different financing sources; and determine how benefits can be converted into financing. Financing experts will help jurisdictions brainstorm potential capital stack and ongoing operating sources.

Agenda

1. **Opening Remarks and Framing** (20 minutes, *re:focus and Enterprise*)
 - a. The challenge of resilience funding
 - b. Resilience financing principles
 - c. Resilience financing framework
 - d. Categorizing benefits and identifying potential financing
2. **Supporting SME Introduction** (10 minutes, *Supporting SMEs*)
3. **Exercise** (40 minutes, *Facilitators or Supporting SMEs*)

Supporting Documents

- **Handout: Financing Your Resilience Project**
- Financing Sources Narrative Handout

CLASSROOM TRACK 2

Session: Policy, Regulatory and Procedural Planning

Time: 10:30am-12:30 pm for Track 2A / 1:30pm-3:00pm for Track 2B (90 minutes)

Presenter

Jessica Grannis
Kaye Matheny

Georgetown Climate Center
HR&A Advisors, Inc.

Objectives

This classroom session will provide team members with a framework for understanding the legal, regulatory, and procedural challenges of working on projects that promote resilience at multiple levels of government. It is designed to challenge teams to identify regulatory barriers to project implementation and strategize to achieve long-term institutional changes that support resilience goals beyond the project or program overall.

Structure

Jessica Grannis of the Georgetown Climate Center will present a framework for understanding the legal, regulatory, and procedural challenges. She will then share a series of cases, at multiple levels of governance (city, county, and state), which demonstrate innovative ways of overcoming institutional or governance barriers.

Agenda

1. **Opening Remarks and Framing (25 minutes)**
 - a. Provide context for long-term commitments outlined in Factor 5 of the NOFA
 - b. Provide a framework for understanding the legal, regulatory, and procedural challenges of working on projects that promote resilience at multiple levels of government.
 - c. Discuss how recognizing potential legal, regulatory and procedural barriers during pre-development creates an opportunity to:
 - i. Manage the issue by altering project design
 - ii. Overcome the issue by changing laws, regulations, or procedures
 - d. Presentation of cases
2. **Exercise (50 minutes – Facilitators or Supporting SMEs)**

Supporting Documents

- **Handout: Identifying Policy/Regulatory/Procedural Barriers**

CLASSROOM TRACK 2

Session: Stakeholder Mapping and Communications

Time: 10:30am-12:30pm for Track 2B / 1:30pm-3:00pm for Track 2A (90 minutes)

Presenter

Sam Carter
Kaye Matheny

Rockefeller Foundation
HR&A Advisors, Inc.

Objectives

This classroom session will help team members identify critical stakeholders and strategize about how to engage vulnerable populations. It will also offer a framework for effective stakeholder engagement, driven by both outreach and thoughtful ways of capturing and integrating feedback into project planning. In addition, it will provide team members with strategies for communicating resilience goals and projects to stakeholders, including elected officials, funders, and partnership organizations.

Structure

Kaye Matheny of HR&A Advisors will lead the session. Team members will do stakeholder mapping and also craft a messaging plan.

Agenda

1. **Opening Remarks and Framing** (20 minutes)
 - a. The importance of multi-stakeholder engagement in resilience projects
 - b. Framing of stakeholder types by level of influence
 - c. Identifying and engaging vulnerable populations
 - d. Framework for creating Resilience Value through effective stakeholder identification and engagement
 - e. Framing of strategies for effective resilience messaging
2. **Exercise** (50 minutes – Facilitators or Supporting SMEs)

Supporting Documents

- **Worksheet: Identifying Stakeholders**
- **Handout: Communicating Resilience to Stakeholders**
- “Resilience Talking Points” handout
- “Talking to Press” handout

Day 3: Project Critique

Time: 10:00 am-12:00 pm (120 minutes)

MOVEMENT INSTRUCTIONS:

- **Facilitators and SMEs** should go to their assigned critique. **If they are not assigned to a specific critique, they should stay with their teams.**

Objectives

The objective of the Project Critique is to have the panel of experts offer teams constructive feedback on the feasibility, assumptions, and overall implementation approach of their project. The critique also offers the teams an opportunity to test their communications to a panel of diverse representatives.

Structure

During the Project Critique, each team will present their project during a 20-minute slot to a mix of the following:

1. **Private SME**
2. **Philanthropic SME**
3. **Federal SME**
4. **Policy and regulatory SME**
5. **Communications SME**

Teams will sign up for 20-minute slots. They will have 5-7 minutes to share their project, focused on presenting a concise summary of the essential elements of their implementation approach and the value it delivers to their community. Following the presentation, the panelists will take turns asking key questions about the viability of the project. For example:

- A CRA-oriented lender might ask about the assumptions that the team made in their financing strategy.
- A representative from a federal agency might inquire about the team's selection of funding sources and point out opportunities to link to and leverage other sources. Likewise, a federal SME may ask about the timing and alignment of key regulatory procedures and their impact on project delivery.

To present, teams should bring their key outputs from the Academy that help them best articulate their project proposal.

Agenda

10:00-10:20 am
10:20-10:40 am
10:40-11:00 am
11:00-11:10 am
11:10-11:30 am
11:30-11:50 am
11:50-12:00 pm

Team 1
Team 2
Team 3
Catch-Up Time
Team 4
Team 5
Catch-Up Time