



TRANSPORTATION RESILIENCE STUDY

NATIONAL INFRASTRUCTURE ADVISORY COUNCIL QUARTERLY BUSINESS MEETING

MARCH 20, 2015

Jack Baylis

President and CEO
The Baylis Group, LLC
Co-chair

Glenn S. Gerstell

Managing Partner
Milbank, Tweed, Hadley, &
McCloy LLP
Co-chair

Dr. Beverly Scott

CEO/General Manager
Massachusetts Bay
Transportation Authority
Co-Chair



AGENDA

1. Study Charge and Status
2. Study Group Findings and Conclusions
3. Schedule for Completion

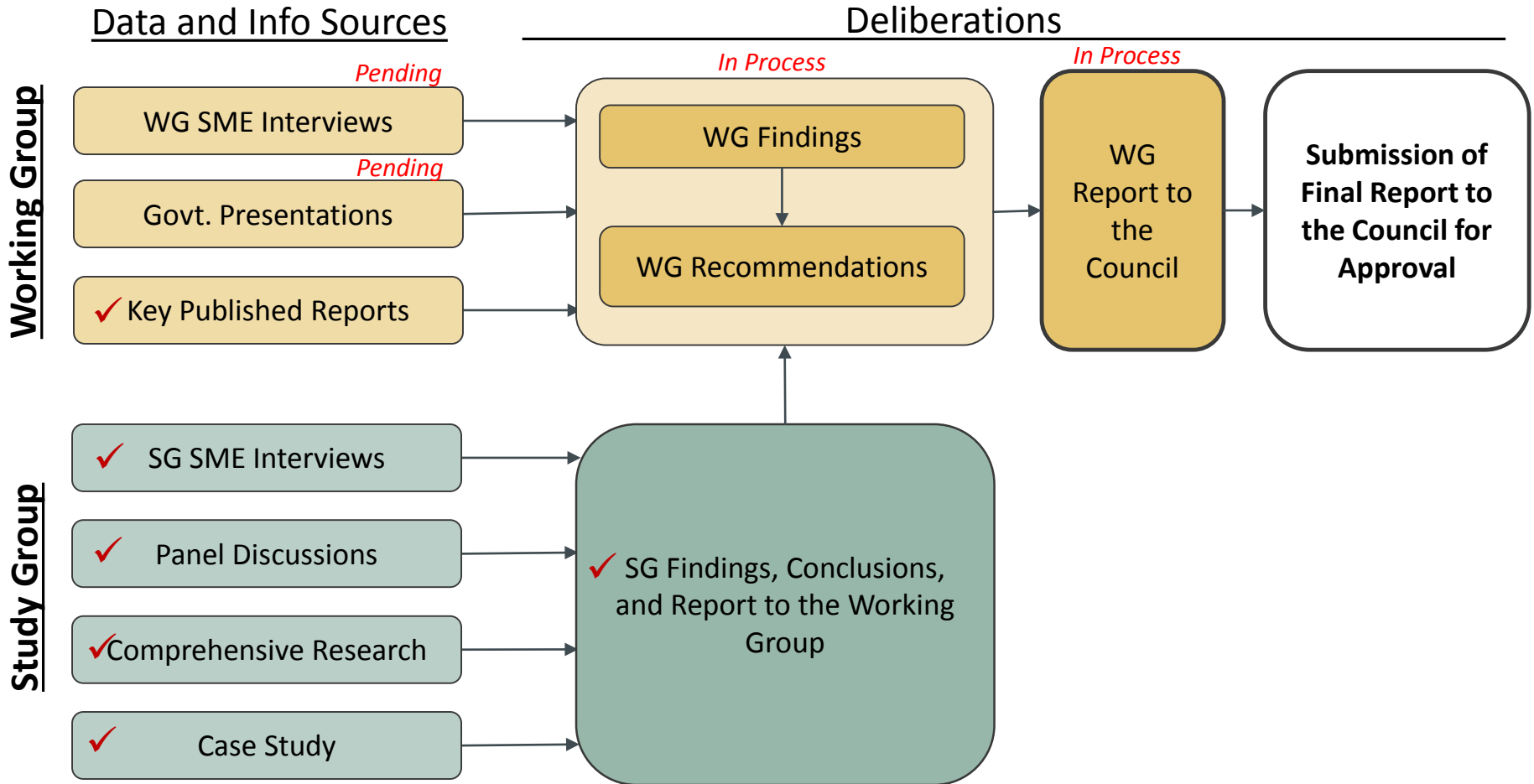
STUDY CHARGE

Apply the NIAC-recommended framework for establishing resilience goals¹ to the Transportation Sector in order to:

- Test and validate the usefulness of the framework in another lifeline sector
- Uncover key transportation resilience issues
- Identify potential opportunities to address them

¹Developed in the 2010 NIAC study of the electricity and nuclear sectors

STATUS OF ACTIVITIES AND PROGRESS



✓ Completed activities

WORKING GROUP MEMBERS

- **Dr. Beverly Scott**, *CEO/General Manager*, Massachusetts Bay Transportation Authority (Co-Chair)
- **Jack Baylis**, *President and CEO*, The Baylis Group, LLC (Co-chair)
- **Glenn S. Gerstell**, *Managing Partner*, Milbank, Tweed, Hadley, & McCloy LLP (Co-chair)
- **Margaret Grayson**, *President*, MTN Government Services
- **Connie Lau**, *President and Chief Executive Officer*, Hawaiian Electric Industries, Inc.
- **James Nicholson**, *President and Chief Executive Officer*, PVS Chemicals, Inc.

WORKING GROUP UPDATE

- Nine Working Group interviews completed:
 - Mr. Mortimer Downey, Senior Advisor, Parsons Brinckerhoff
 - Dr. Stephen Flynn, Director, Center for Resilience Studies, Northeastern University
 - Ms. Deborah Matherly, Principal Planner, The Louis Berger Group
 - Mr. Jeffery Morales, Chief Executive Officer, California High-Speed Rail Authority
 - Dr. Julie Rosati, Research Engineer, U.S. Army Corp of Engineers
 - Dr. Michael Meyer, Consultant, Parson Brickenhoff; Eno Center for Transportation
 - Ms. Patricia Mutschler, Senior Policy Advisor, Committee on the Maritime Transportation System
 - Mr. Steve Heminger, Executive Director, San Francisco Metropolitan Transportation Commission
 - Mr. William Golden, Executive Director, National Institute for Coastal and Harbor Infrastructure
- Conducted three rounds of public sector briefings

STUDY GROUP TASKING

1. Identify **baseline resilience** for each transportation mode
2. Identify **cross-modal resilience plans and practices**
3. Conduct **case study scenarios** focused on intermodal and cross-sector interdependencies
4. Conduct an executive-level roundtable to analyze results of scenarios and identify **resilience gaps** and potential fixes
5. Prepare a **summary report** of Study Group findings and conclusions to the Working Group

STUDY GROUP MEMBERS

- **Ted Basta**, Massachusetts Bay Transportation Authority (*Chair*)
- **Rick Houck**, Hawaiian Electric Company (*Vice Chair*)
- **Cherrie Black**, Idaho National Laboratory
- **Leslie Blakey**, Coalition for America's Gateways and Trade Corridors
- **John Contestabile**, Johns Hopkins University
- **Joan Gehrke**, PVS Chemicals, Inc.
- **Brian Kane**, Massachusetts Bay Transportation Authority
- **Catherine Melquist**, MTN Government
- **Frances Paulson**, FedEx Express
- **Cosmo Perrone**, Cosmo Perrone and Associates
- **Tamara Powell**, Massachusetts Bay Transportation Authority
- **Martin Rojas**, American Trucking Associations, Inc.

STUDY GROUP RESEARCH AND ANALYSIS

- Eight panel discussions completed:
 - Port Operations at the Port of Los Angeles and the Port of Long Beach (10/9)
 - Pipeline and Surface Transportation Planning and Policy (10/23)
 - General Port Operations and Intermodal Transportation (10/30)
 - Aviation and Airfreight, and Postal And Shipping (11/6)
 - Mass Transit and Highway (11/13)
 - Resilience and Cybersecurity (11/20)
 - Supply Chain and Rail (12/4)
 - Freight Rail (2/19)
- Case study of Ports of Los Angeles and Long Beach disruption scenarios
 - Scenarios: earthquake, tsunami, nuclear device, cyber attack, and terrorist attack
- Review of 150+ reports, testimonies, and government documents



STUDY GROUP FINDINGS AND CONCLUSIONS TOPICS

1. Complexity of the national transportation system
2. Resilience in the early stages of project development
3. Cross-sector dependencies and vulnerabilities
4. Cross-modal coordination and planning
5. Cross-jurisdictional coordination and planning
6. Cyber and cyber/physical systems
7. Current regulatory approaches

STUDY GROUP FINDINGS

1. Complexity of the national transportation system

- The national transportation system is extraordinarily complex, making the integration of resilience a daunting challenge across highly diverse transportation assets and ownership structures.

2. Resilience in the early stages of project development

- Resilience, employed during the early stage of project development, offers the best opportunity to “build-in” resilient characteristics into systems and their operations—rather than simply patching failures as they occur.

3. Cross-sector dependencies and vulnerabilities

- Cross-sector dependencies and systemic vulnerabilities affecting the transportation sector are not well understood.

STUDY GROUP FINDINGS (CONT.)

4. *Cross-modal coordination and planning*

- Cross-modal coordination and planning is lacking throughout most of the transportation system.

5. *Cross-jurisdictional coordination and planning*

- Cross-jurisdictional coordination and planning is limited, creating disjointed and potentially conflicting resilience decisions within regional transportation systems.

6. *Cyber and cyber/physical systems*

- Cyber and cyber/physical systems are an area of significant and growing risk, which owners and operators may not fully comprehend or have the processes to mitigate.

7. *Current regulatory approaches*

- Current regulatory approaches may hinder effective resilience practices.

SCHEDULE

