



CENTER FOR
ADVANCES IN PORT MANAGEMENT
LAMAR UNIVERSITY

**ADDRESSING RESILIENCY IN STATE TRANSPORTATION PLANS;
NORTH CENTRAL TEXAS COG--JUNE 26, 2019**
**“Enhancing Freight Transportation System Resiliency Through
the Application of Strategic Asset Management Methodology”**
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CAPM: DEGREES, CERTIFICATES AND CONTINUING EDUCATION

- Degrees/Concentrations:
 - Masters of Science in Port and Marine Terminal Management
 - MBA and Masters of Engineering Management with Concentrations in Port and Marine Terminal Management
- **Certificate Programs**
 - Global Trade and Logistics
 - Ports and Marine Terminal Development and Operations
 - Management and Leadership



PORT AND MARINE TERMINAL MASTERS DEGREE CURRICULUM

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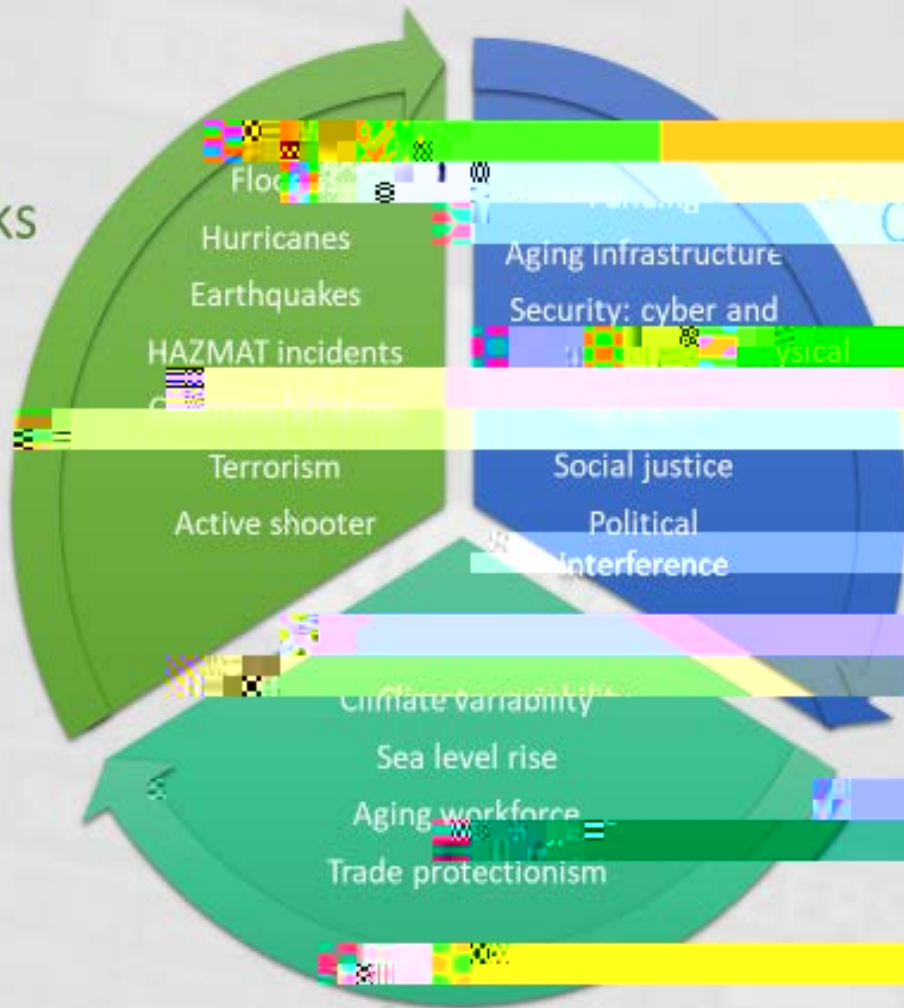


WHAT IS STRATEGIC ASSET MANAGEMENT?

- “...coordinated activity of an organization to realize value from assets.” (ISO 55000)
- ...links the organization's system's assets to its strategic and business goals
- It is not a project, but a process: data driven, risk based
- Success is derived through the engagement of the entire organization (osystem!).

CREATIVITY

Acute Shocks



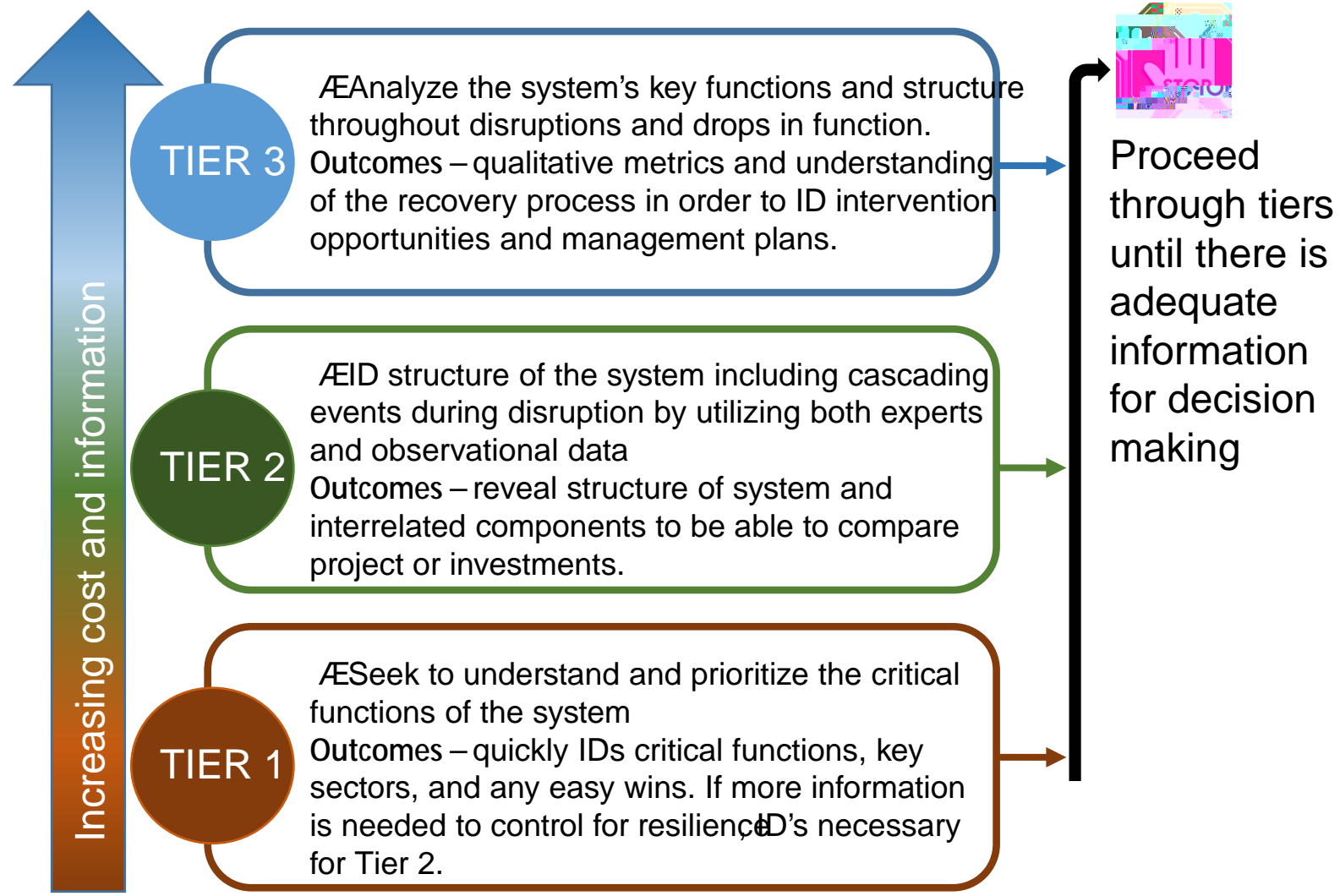
Chronic Stressors

Potential Accelerators

Hurricane



Port Resilience Assessment and Decision Guide



SABINE-NECHES WATERWAY PORT AND TRANSPORTATION SYSTEM RESILIENCY

- SNWW and connecting transportation infrastructure critical to regional, statewide and national prosperity and security
- Approach:
 - Utilize SAM methodology
 - Build on 2009 USCG 'Portwide risk mitigation study' (one-time, nation-wide initiative)
- Proposed study supported by all major SE Texas private and public stakeholders
- Over-arching study on SE Texas Economic Resiliency Underway (funded)

SNWW RESILIENCY STUDY: APPLICATION OF SAM METHODOLOGY

- Outcome: Identification through a data driven, risk based process, critical infrastructure projects and 9.9T



3. Identify, assess and inventory assets/asset classes critical to resilient SNWW port and waterway system

- Navigation channel
 - Dimensions—average and under stress
 - ATON
 - Levees, drainage and other flood control assets, including wetlands
 - Pilots
 - Tugs
 - VTS and PCT
- Docks and wharves
- Roads and highways
- Railroads—Class I and short lines
- Pipelines
- Airports (international and regional)
- Communication infrastructure
- Power supply infrastructure
- Emergency management facilities
- Workforce

STAKEHOLDER SURVEY SAMPLE QUESTIONS

- What is your organization's mission/goal(s), as related to your corporate priorities as well as those of your Texas location?
- What assets or asset classes under your control (built, natural, human) are strategically critical to the achievement of your mission/goal(s)? Have these assets been identified as part of a deliberate

PRELIMINARY SELECTED KEY ISSUES

- Public/private sector support-partnership with SETWAC critical
- Communication networks and processes--critical
- Assembling/harmonizing data across public and private sectors to institutionalize data and processes (aging workforce retires)
- Private sector (e.g. oil and gas) proprietary concerns (plant vulnerabilities; impact on nation's gas prices)
- Corporate Hqs vs plant managers
- Railroad participation
- Corporate interest and resource availability (staff/funding) vs measuring benefits and costs (run to failure) vs competing priorities. Making the business case.
- Freight transportation forecasting and lack of capacity for redundancies and workarounds. (Regional approach.)
- Integrate planning initiatives--freight interests and COGS (SETWAC and SETRPO vs state)
- Model risks--implications for transportation system and asset classes (including regional/functional particularities, e.g. nitrogen)
- Collecting appropriate data and detail to extent necessary to facilitate decision making
- Current and relevant flood plain maps
- Regulatory role (waivers?)
- Study and implementation funding!

Q&A

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