

WATER SECTOR RESILIENCE



America's Water Infrastructure Act of 2018 (AWIA) requires community water systems serving a population of greater than 3,300 people to conduct a risk and resilience assessment (RRA) and prepare or revise an emergency response plan (ERP). A utility must then certify that both have been completed by required deadlines and every five years thereafter. Failure to submit each certification is subject to direct enforcement by USEPA and a penalty of up to \$25,000/day.

Community Water System Size (Population Served)	Certify Risk and Resilience Assessment (RRA) prior to:	Certify Emergency Response Plan within 6 months of RRS, but no later
> 100,000	March 31, 2020	September 30, 2020
50,000 to 100,000	December 31, 2020	June 30, 2021
3,300 < 50,000	June 30, 2021	December 31, 2021

Resilience is the ability of an organization to anticipate, prepare for, respond and adapt to change—from incremental to sudden major disruptions—in order to survive and thrive. It reaches beyond risk management towards a more holistic view of business health and success.

ABOUT ENHANCED RESILIENCE

Resilience coupled with agility yields enhanced resilience. And enhanced resilience represents the next phase in the evolution of thriving organizations.



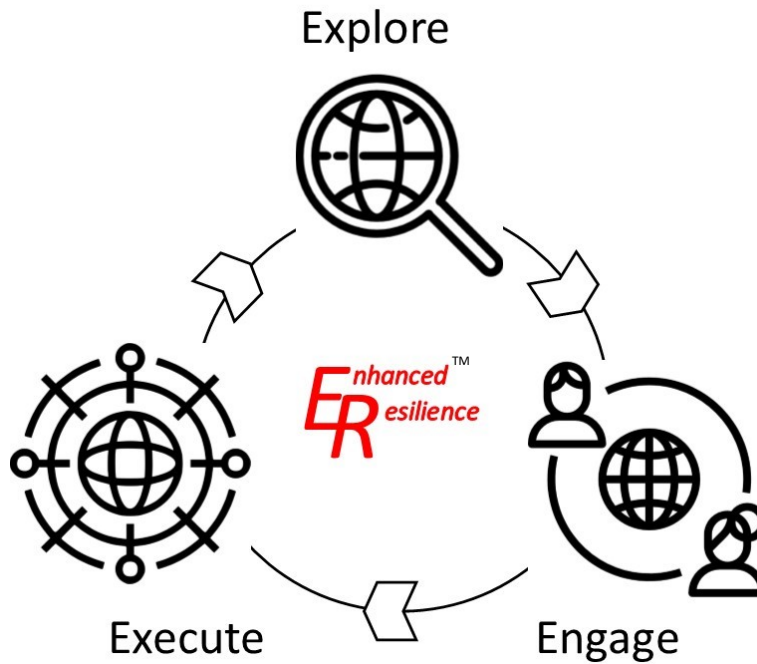
Each organization has its own "perfect storm"—a combination of events or circumstances that has the potential to bring that organization to its knees. For a water system it might be a sudden loss of customer confidence from a cyber attack, contamination of its supply, failing infrastructure, a disgruntled employee wreaking havoc ... you get the idea. Resilience is uniquely contextual and at the same time highly relational and collective.

Working together with you, we explore your organization and its context, including potential threats. We engage with you and your stakeholders to chart future resilience and agility actions. And we can be there with you as you execute your desired resilience and agility actions.

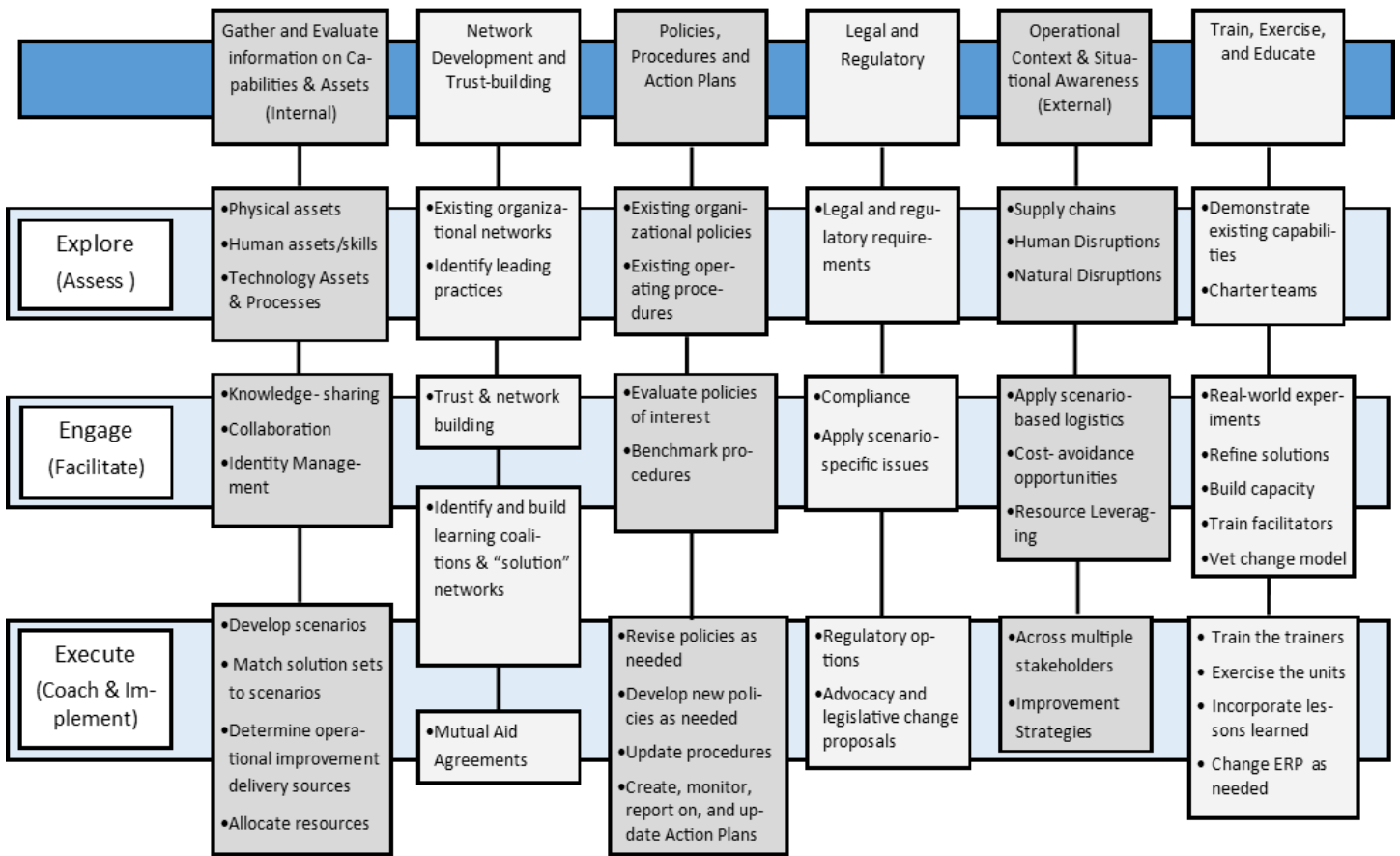
WHAT DOES ENHANCED RESILIENCE DO?

Satisfy immediate mandates. Get you through current challenges. Anticipate the next crisis.

How? We guide your assigned focal point through a risk and resilience assessment that will not only satisfy AWIA but will also be understandable and easily updated in-house whenever circumstances change (an unadvertised requirement for any assessment). We troubleshoot, identify tradeoffs, and offer sounding board expertise with ongoing reach back, so that you do not risk making critical decisions in a vacuum.



Enhanced Resilience Value Proposition: Robust resilience assessment and coaching to strengthen an organization's operations and "change readiness"



Enhanced Resilience Framework

Rev.1b—04 Apr 2020

OUR PRIMARY PRACADEMICS (COMBINING ACADEMIC THEORY, EVIDENCE-BASED RESEARCH, AND YEARS OF PRACTICAL EXPERIENCE)



Nick Catrantzos

Nick is the consummate pracademic. He teaches, conducts research and always looks to apply theory in practical and useful ways. He has taught principles of homeland security and emergency management online for a business school of the University of Alaska. And in 2017 was selected for the founding cohort of an experimental think tank initiative, Hsx: Advanced Thinking in Homeland Security, Naval Postgraduate School.

Formerly head of security for the Metropolitan Water District of Southern California, he contributed to three post-9/11 national water security panels organized by the Environmental Protection Agency, developing many of EPA's security guidelines (i.e. "features for an active and effective security program"), and ultimately earning the 2007 Boyd Award of the Association of Metropolitan Water Agencies for "extraordinary personal service in the drinking water field and in the industry's efforts to develop tools to secure the nation's water supplies." During this period, he also served on the board of the California Utilities Emergency Association, a leading model of the public-private partnership (co-located with CalEMA offices in Rancho Cordova).

Nick has served as a Senior Security Consultant for Triad Consulting and Security Design Group, developing risk assessments, crafting security policies, and writing security business plans for a number of large water utilities. He has also directed operations for two international security consultancies, Control Risks and Kroll Associates, as well as for a smaller security consulting firm. Nick also led public sector vulnerability assessments under ManTech Security Technologies with diverse utilities and other critical infrastructure providers.

In 2009, he graduated from the Naval Postgraduate School's Homeland Security Master's Program where he won top writing honors for his thesis on insider threats to critical infrastructure.

In May 2012, CRC Press published his textbook, *Managing the Insider Threat: No Dark Corners*. Prior to this work, the American Society for Industrial Security (ASIS) commissioned and published his research report, *Tackling the Insider Threat*. Additionally, Nick's work has frequently appeared in best practices volumes (*Security Business Practices Reference: Professional Practices for Security Managers Seeking to Improve their Organizations*, by ASIS) in national or ANSI standards on facility physical security (2009) and workplace violence prevention and intervention (2011).

Nick earned a Lifetime Designation of Certified Protection Professional in 2011.

Earlier in his career, Nick served as an intelligence officer and was awarded the Meritorious Service Medal for outstanding service to two government agencies. He was later recognized by Lockheed corporate headquarters for applying his intelligence skills to locating company hostages trapped in Iraq, delivering daily threat briefings to operating companies in the build-up to the first Gulf War, and debriefing Lockheed hostages upon their safe return.

He spent many years managing adverse consequences. Now he concentrates on preventing them.

OUR PRIMARY PRACADEMICS (COMBINING ACADEMIC THEORY, EVIDENCE-BASED RESEARCH, AND YEARS OF PRACTICAL EXPERIENCE)



Dave Siburg

Dave is a highly skilled and experienced pracademic of agile leadership and capacity building to strategically strengthen organizational resilience and facilitate organizational transformations. He has more than 30 years' experience of applying research and theory with practical actions in creating agile and engaged resilient organizations through aligned vision, collaboration, assessment, facilitation and coaching. He focuses on whole systems understanding coupled with strategic action.

Dave is recognized as a critical and comprehensive thinker who is always encouraging folks to be innovative with the resources at hand. His ability to focus attention on assessing a situation and the supporting assets is extremely valuable in facilitating the implementation of a strategy that maximizes operational success with multiple net benefits. He has been a national leader in building and leveraging capacity in organizations with severe resource limitations. More importantly, Dave is a thought leader in applying passion and vision, management theory and research, and collaboration to community welfare and organizational resilience issues.

Dave has worked and volunteered as a technical advisor to strengthen resilience and capacity around the world in locations besides the U.S. that include Saudi Arabia, Haiti, Namibia, Botswana, South Africa, Zimbabwe and Guam. He also served over twenty years as a water and telecommunications utility general manager. With Nick, Dave also contributed to the three post-9/11 national water security panels organized by the Environmental Protection Agency. He also served as a technical advisor to the Panel on Water System Security Research of the National Research Council (2003).

Dave is currently developing strategic initiatives adapting the 3"1" Framework (from the Sustainable Technologies, Accelerated Research - Transformative Innovation for Development and Emergency Support [STAR-TIDES], domestic and international recovery efforts of the Department of Defense) including a proposed Community Resilience and Transformation Network with a state senator for the State of Nebraska.

He is also researching, coaching, and practicing:

Agile Leadership Development ~ Leading in Complex Contexts ~ Organizational & Community Resilience and Sustainability ~ Appreciative Inquiry and Transformative Scenario Planning ~ Multi-Organizational Collaborations for Positive Social, Environmental, and Community Outcomes ~ Disruption & Emergency Preparedness – Response – Recovery Strategy and Planning

Dave has a Master of Planning degree from the University of Minnesota, concentrating in strategic planning. For his work, he was recognized with the American Institute of Certified Planners Planning Student Award. He has also completed the American Water Works Association Utility Risk and Resilience certificate program to help utilities meet the requirements of the America's Water Infrastructure Act of 2018 (AWIA).