



POLICYMAKER PRIMER:

PUBLIC WORKS AND RESILIENCY



WHAT IS RESILIENCY IN PUBLIC WORKS?

Resiliency in public works emphasizes mitigation, preparedness, flexibility, and sustainable practices to promote long-term viability and responsiveness in ever-changing landscapes. APWA recognizes that resiliency is a key issue to effective public works. Public works is responsible for planning, developing, building, maintaining, and operating most local, state, tribal government infrastructure. However, population fluctuations and the increase in severe weather events put significant strain on these systems.

Resilient communities are designed to continue functioning effectively during and after disruption, ensuring the safety of residents and preserving essential services. It means designing infrastructure systems to withstand, adapt to, and recover from natural disasters, extreme weather events, economic swings, and other challenges. Most infrastructure in the U.S. is owned and managed by state and local governments. Building resiliency requires proactive strategies that look at current and future needs and risks, then prepare for and mitigate these anticipated risks.

More Mitigation Measures, More Savings



**One dollar invested in mitigation =
13 dollars U.S. saves in future costs**



NOAA studies reflect the nation can save up to \$13 dollars for every \$1 dollar invested in mitigation efforts.

(<https://coast.noaa.gov/states/fast-facts/hazard-mitigation-value.html>)

IN AN EMERGENCY, PUBLIC WORKS ENSURES SAFETY BY

- Keeping routes clear for police, fire, and Emergency Management Systems.
- Maintaining traffic for the public and providing barricades/signage in real time for unsafe routes.
- Protecting safe drinking water, including providing alternate supplies when infrastructure systems are disrupted.

AFTER AN EMERGENCY, PUBLIC WORKS CONTINUES TO HELP EVERYONE RETURN TO NORMAL BY

- Restoring water, sewer, solid waste, and other essential services as quickly as possible.
- Supporting other essential local services (such as parks, police, fire, etc.) with debris removal, rescue operations, and/or specialized equipment or service needs.
- Returning traffic control which can include land, sea, and air.
- Assessing repair costs for damaged infrastructure.
- Incorporating long term capital infrastructure projects into multiyear work programs.

BUILD FOR SUSTAINABILITY AND RESILIENCY

- Public Works Professionals (PWP) design, construct, operate, and maintain the nation's critical infrastructure worth trillions of dollars. High-quality, modern, well-maintained infrastructure is the backbone of any healthy, thriving society. Transportation, drinking water, wastewater, flood control, fleets, facilities, power, and telecommunication infrastructure are the underpinning of our national security, quality of life, environmental health, and economic competitiveness.
- Consider problems and solutions holistically - evaluating economic viability, environmental impacts, and life cycle costs. PWP's know that it is **vital to provide solutions that address current challenges, advance quality of life, and prepare to support future generations.**
- APWA supports the use of asset management tools to evaluate the quality of infrastructure through the lens of sustainability, and tools like the Envision sustainability framework and rating system.
- Pre-planning measures and preventive mitigation protect critical infrastructure and human life and increase the return on investment for communities.

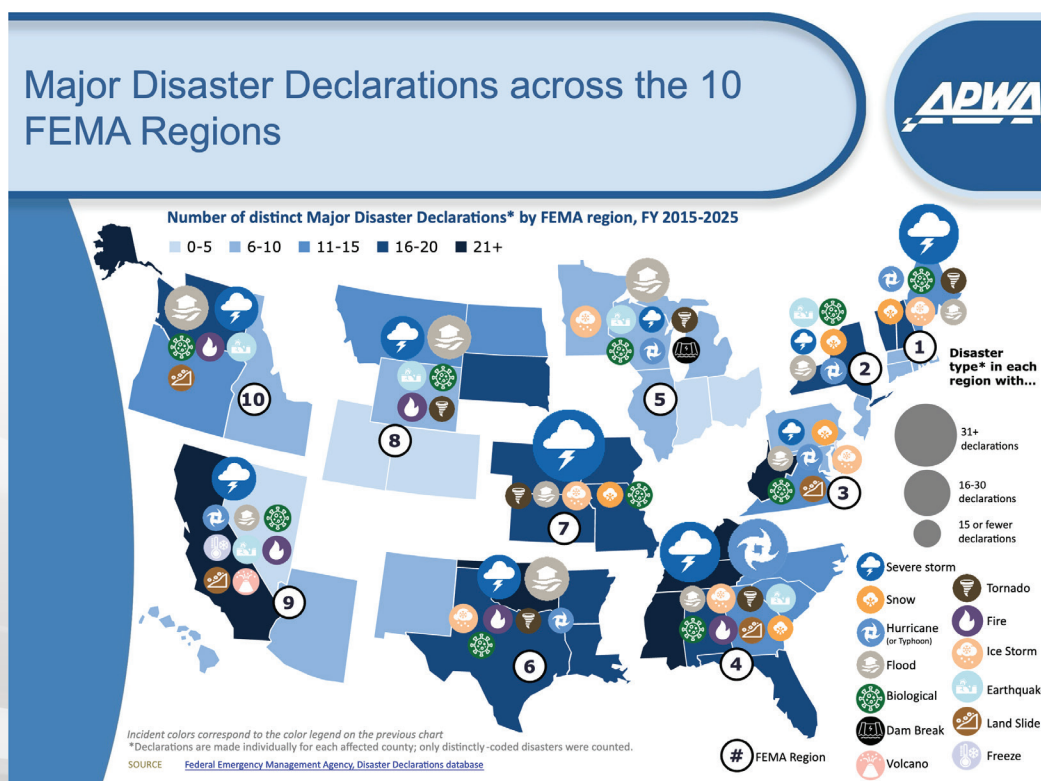
PUBLIC WORKS PROFESSIONALS ARE FIRST RESPONDERS

- The first in and last to leave when there is a disaster and PWP's lead efforts to plan, mitigate, respond to, and recover from manmade and natural disasters - assisting fellow emergency responders, individuals, businesses, and communities.
- APWA's *Emergency Management* policy priorities emphasize investment, tools, and resources to meet the public works mission to build stronger and more resilient communities.

BUILD RESILIENT COMMUNITIES THROUGH ENVIRONMENTAL PROTECTION

- Plan, design, enhance, and maintain our critical infrastructure and green space in a manner that reduces environmental impacts while maximizing community benefits.

- APWA's *Water Resiliency* policy priorities call for designing and operating water and wastewater systems that minimize energy consumption and harmful emissions while monitoring for emerging contaminants such as per- and polyfluoroalkyl substances (PFAS) and creating and managing municipal waste and landfills that reduce, reuse, and recycle materials while minimizing the release of pollutants.
- The budgetary impact of disaster recovery often has multi-year, multi-million-dollar impacts, for this reason, mitigating harm and building resilience by protecting environmental resources supporting the public works mission of quickly facilitating a return to normal.
- PWP's seek to protect life, property, and communities by building and maintaining more resilient systems to better withstand the challenges of severe weather.



** Policymaker Primers supplement APWA's official Public Policy Priorities, providing additional information and context for issues tangential to emergency management, transportation, and water resiliency.

The American Public Works Association (APWA) represents over 32,000 public works professionals across North America, dedicated to providing essential and high-quality services to millions of people in rural and urban communities, both small and large.

APWA members serve in both the public and private sectors, providing expertise to the local, state, and federal government levels. Working in the public interest, our members plan, design, build, operate, and maintain, and oversee our vast infrastructure networks essential to our economy, environment, safety, and way of life.

APWA collaborates with all levels of government and supports federal investment in our shared infrastructure. APWA is opposed to unfunded mandates and any effort to impede the appropriate use of public right-of-way, and strongly encourages industry to partner with public works, and all state and local government entities.

APWA Government Affairs Policymaker Primer

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