

Municipal Resiliency and Preparedness

Organizational Design

City of Flagstaff

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SYNOPSIS

Project Intent and Innovation

Like many cities, Flagstaff's municipal government is developing programs and policies that will affect the City in the long-term, and yet it has not created a plan to increase the City's resiliency to the future effects of the changing climate. To address this potential challenge to public service delivery, Flagstaff completed a Resiliency and Preparedness Study. The project addresses a significant public service challenge: How can a local government reduce its vulnerability of and build local resilience to climate variability and climate related disasters? The Study supports innovation and leadership by serving as a vital bridge between policy development useful for addressing climate resiliency challenges and decision makers confronting those challenges.

The City's Resiliency and Preparedness Study builds awareness of how changes in climate conditions can impact critical community resources and in turn, the City's priorities. The City's study assessed vulnerability of local systems relevant to municipal operations, such as water, public health and forest health that have some risk of extreme impacts due to climate variability.

Reducing vulnerability to the changing climate requires the City to identify how vulnerable it's operating efficiency, public health, infrastructure and economic competitiveness are to climate variability and where it lacks sufficient capacity to adapt, and what the risks are if it does not act. Using an innovative, consensus based approach, the City of Flagstaff conducted the internal assessment to identify vulnerable planning areas within City operations and assess the risks of the expected impacts.

The impacts of the Resiliency Study can affect Flagstaff's local economy, natural environment, community well being and the City's ability to deliver on its existing commitments. The City of Flagstaff demonstrated innovation and leadership by completing a local resiliency and preparedness study. The study will help the City to protect the community, including lives, health, property and ecosystems from the negative impacts of climate related disasters.

Project Costs and Savings

Prioritizing resiliency and preparedness is financially relevant to the City of Flagstaff. Planning now can save money, while inaction will lead to higher costs in the future. Paying for prevention upfront can avoid more significant costs in the future. For example, it has been found that one dollar of hazard mitigation today can prevent the expenditure of four dollars of post-disaster reconstruction in the future. This principle

also extends to reducing the future costs of incremental weather related impacts. The innovation and leadership demonstrated by this project provides policies for the City to take a proactive approach that reduces risks and is less costly than responding to these impacts as they happen. Preparing now to be more resilient to weather related impacts is fiscally responsible, while inaction now can lead to higher costs in the future.

Citizen Outcomes, Results, Practicality and Transferability

The City of Flagstaff's study brought home how weather and climate affect City infrastructure, services and operations. For Flagstaff, managing the impacts of weather has become imminently local. Using the Study as guidance, in June 2012, Flagstaff City Council unanimously approved a Municipal Resiliency and Preparedness Policy. The Council Resolution adopts guiding policy statements focused on building, maintaining and protecting public resources, safety and infrastructure by preparing for and effectively managing weather impacts including extreme events such as flooding and wildfires.

The identified innovation: the City of Flagstaff Resiliency Study benefits the entire municipal organization and the people who rely on the delivery of municipal services. As climate and related weather conditions change, lives and livelihoods are increasingly at stake, as well as smart economic growth and community development. The outcomes include helping the municipal organization to be prepared to respond to these increasing community service delivery challenges by complementing response and relief efforts with preparedness and prevention measures.

The City of Flagstaff and other local governments are on the frontlines of managing the impacts associated with climate variability, ranging from increased drought (straining water supplies) to increased flooding (straining stormwater management infrastructure) to more extreme heat and weather events (putting lives and property at risk). The City's efforts to address climate resiliency presents an opportunity to innovate and improve local service delivery and organizational capacity to achieve near-term results; to demonstrate the do-ability of practical, cost-effective, economy-enhancing resilient and sustainable solutions. This practical approach to institutionalizing resiliency and preparedness principles is one that can be transferable to other Alliance for Innovation communities.

Risks, Obstacles and Innovative Performance Measures

Learning from our experiences is an important factor in the success of the City of Flagstaff's Resiliency and Preparedness Study. City leadership proved to be critical in both the initiation of the Study and the momentum for Council to adopt policy

statements. In addition, the use of an internal team of City staff allowed for a more in-depth vulnerability and risk assessment that focused on impacts relevant to City operations.

The climate has already changed and future changes and risks are highly certain. In many parts of the world, the current climate is already noticeably different from the historical climate. In Flagstaff, annual average temperature increases have been observed and future projections indicate a rising trend. The changing climate has serious direct and indirect impacts and communities that engage in advanced planning can benefit. Local governments are making major development decisions today that will have long legacies; therefore, today's choices will shape tomorrow's vulnerabilities. It is important to build in the capacity to adapt to unforeseen circumstances including diversity, redundancy and network overlaps within municipal operations and community service delivery. To overcome this obstacle, the City of Flagstaff Resiliency and Preparedness Study and Policy were championed a Core Team of City staff and regional partners from diverse backgrounds. The Core Team worked through a consensus building process to identify and prioritize municipal operations at risk and vulnerable to changes in local climate. The team was diverse and illustrates the complexity of the issue and the potential widespread impacts across the organization.

PRESENTATION STYLE

Flagstaff proposes an interactive session in the format of a workshop that will be both entertaining and educational. The session will include an overview of Flagstaff's successes and lessons learned. Furthermore, the session will include participants conducting a mock vulnerability and risk assessment exercise. This will serve as a live demonstration of a methodology that can be applied in their communities. This idea also demonstrates one of Flagstaff's greatest lessons learned. That is working in a group, through a consensus-based process, nets a greater awareness and understanding of the direct relationship of local government to weather. The workshop will include an overview of two assessments: vulnerability and risk. The vulnerability assessment will include an overview of how to conduct a sensitivity analysis and an adaptive capacity assessment, the two factors of determining vulnerability. The second step of the vulnerability assessment was to determine adaptive capacity. The workshop will also include walking conference participants through a climate risk assessment to better understand the degree of impacts of weather to local government. The conference session will conclude with a discussion about prioritization and applicability.