



City of Flagstaff  
Resiliency and Preparedness Update 2015



June 9, 2015

# Overview

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- ▶ Review background information
  - ▶ Impetus for resiliency and preparedness work
  - ▶ Relevant policies and goals
- ▶ Review current resiliency projects
  - ▶ Forest management
  - ▶ Stormwater management
  - ▶ Asphalt innovations
  - ▶ Police Department
- ▶ Garner council direction
  - ▶ Role of leadership in organizational adoption

# Background Information

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- ▶ Climate projections for the Flagstaff area
  - ▶ Changing precipitation patterns
    - ▶ Intensified storms, reduced overall snowpack
    - ▶ Drier forests, and more severe / frequent forest fires
    - ▶ Extreme runoff during monsoon events
- ▶ COF Resiliency and Preparedness Study – 2012
  - ▶ Participants from City, County, National Weather Service
  - ▶ Assessed key components of government for vulnerability and risk



# Resolution 2012-22

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- ▶ Policy 1- Build partnerships with local and regional stakeholders
- ▶ Policy 2- Consider impacts of weather on vulnerable populations
- ▶ Policy 3- Institutionalize resiliency within City operations
- ▶ Policy 4- Take weather extremes into City development planning
- ▶ Policy 5- Prioritize resilience education within City operations
- ▶ Policy 6- Develop comprehensive criteria into planning efforts
- ▶ Policy 7- Allocate municipal resources to building adaptation

# Council Priorities and Regional Plan Policies

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- ▶ **Council Goal 11 - Ensure prepared as possible for extreme weather events**
  - ▶ Present resiliency and *preparedness* goals to Council
- ▶ **Regional Plan Policies**
  - ▶ Promote investments that strengthen climate resilience and discourage those that heighten climate vulnerability (E&C.2.2.)
  - ▶ Prepare community for and minimize impacts of climate change induced hazards. (E&C.3.1.)
  - ▶ Review and revise existing regulations, standards, and plans to reduce the community's vulnerability to climate change impacts. (E&C.3.2.)
  - ▶ Invest in forest health and watershed protection measures. (E&C.3.3.)
  - ▶ Increase the region's preparedness for extreme climate events. (E&C.3.4.)

# Forest management – FWPP

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- ▶ **Approved by voters in Nov 2012**
  - ▶ Forest Treatments in Lake Mary and Rio de Flag (Dry Lake Hills) watersheds
- ▶ **Fosters resiliency through reducing threat of severe fire and post-fire flooding**
- ▶ **Update on current progress:**
  - ▶ Recent CCR provided by Paul Summerfelt
  - ▶ Draft Record of Decision expected mid-June 2015 (USFS)
  - ▶ Solution Search Contest



# Stormwater & Utilities – David McKee

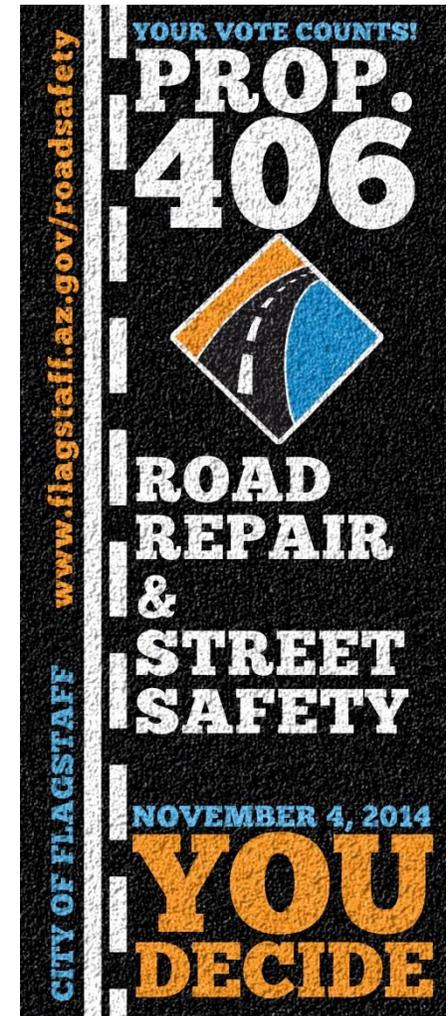
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- ▶ **FEMA grant to upgrade undersized infrastructure**
- ▶ **Projects to increase active and passive rainwater capture in community**
  - ▶ Low Impact Development methods minimize runoff
  - ▶ Passive capture through catchment basins and curb cuts
- ▶ **Increase resiliency and preparedness by reducing community flooding, preserving functionality of wastewater treatment plants and conserving community water resources**



# Asphalt Innovations – Adam Miele

- ▶ Freeze-thaw cycles have a detrimental impact on the integrity of Flagstaff's asphalt projects
- ▶ Innovations in asphalt composition may improve the longevity of our roads, conserving natural and fiscal resources
  - ▶ Potential additives: fibers, rubber
  - ▶ Portland cement vs hydrated lime
- ▶ 2016 construction season may incorporate pilot projects



# Police Department– Chief Kevin Treadway

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- ▶ Officers are often first responders in climatic events like flood and fires
- ▶ Increased fire prevention outreach and action
  - ▶ Collaborate with Fire and USFS on helicopter patrols during fire season
  - ▶ Outreach to groups and individuals residing in forests – collaborative effort with Flagstaff Fire Department



# Projected Resiliency Work

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- ▶ **Workshops with key staff from each department**
  - ▶ Public Works and Police Department October 2013
  - ▶ Ex: Utilities department participated in May 2015
    - ▶ Action items: Emergency planning, fire protections on equipment, stormwater system assessment, coordination with Streets and Fire Department
- ▶ **Importance of strong leadership**
  - ▶ Get goals and actions integrated into employee work plans
  - ▶ Ensure dialogue doesn't stagnate
- ▶ **Discussion: How to support resilience and preparedness in this organization and community into the future**