

2017 SAME Resilience Workshop

Resiliency for the Natural Environment – A North Central Texas Perspective

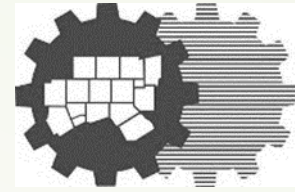
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What is NCTCOG?



Voluntary association of, by, and for local governments, established in 1966, to help them:

- plan for common needs
- strengthen their individual and collective power
- recognize regional opportunities
- resolve regional problems
- make joint decisions/cooperate for mutual benefit

16 Counties

169 Cities

**53 School &
Special
Districts**

**North Central
Texas**



One of 24 COGs in Texas

What is “Resilience”?

The Rockefeller Foundation created the 100 Resilient Cities Challenge in 2013. It defines resilience as the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow, no matter what kinds of chronic stresses and acute shocks they experience. (Shocks considered single event disasters; Stresses considered factors that pressure on a recurring basis).

North Texas Natural Environment Resiliency Efforts Underway:

Challenges/Triggers

- Drought
- Flood
- Heat waves/Urban heat islands
- Tornados/High Winds/Hail
- Ice Storms
- Earthquakes
- Wildfire
- Growth/Density/Urbanization
- Water/Air/Ecosystem Quality Decline
- Energy Blackouts

Some Basic Solutions/Elements

- Adequate Drinking/Ag Water
- Safe Waterways
- Shelters & “cooler” infrastructure
- Sturdy Buildings/Infrastructure
- Adequate Equipment
- Sturdy Buildings/Infrastructure
- Equipment & Processes
- Planning/ Low Impact Dev.
- Green Spaces, Technology, Ren. Energy, Urban Forest
- Renewable Energy & Efficiency

Who's working on it? – Who isn't? (Who in NCT comes to mind?)

- Region C, water providers
- Flood managers, TFMA, USACE, FEMA, TWDB, flood control dist.
- Emergency responders, Tx Trees
- emer. prep. & building codes
- EP, transportation & public works
- building codes & utilities
- Emer. Resp., A&M Forest Serv.
- Planners and developers
- public, developers, federal, state, & regional, others
- utility providers, DOE, public

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Concepts being developed/encouraged through related NCTCOG programs

- conservation, reuse, storage, Smartscape, Water Resources Council
- higher standards, iSWM, Common Vision, CTP
- Cooling Shelters/Green Infrastructure /Reflective roofs & pavements, Emerg. Prep./NWS integrated warning team notices, air quality notices
- Safe Rooms, CASA Radar, improved communication E.P., Pub. Works, Regional Building Codes
- PWERT equipment, CASA Radar, E.P./DPS/Transp. quick response task forces
- Sturdy Buildings/Straps building codes, P.W. utilities, EQ Monitoring stations
- Equipment, pre-clearing of vegetation, drone monitoring, urban interface
- City Planning; Low Impact Dev. and flood mgm't; IgCC; recycling, composting, landfill technologies; water quality plans; sewage capacity
- Green Spaces, Technology, Ren. Energy, Reduced Emissions, Urban Forest, Regional Ecosystem Framework, land preservation & conservation
- Solar & wind programs, methane capture (landfills & wastewater plants), IgCC, Conserve North Texas

Natural Environment Elements to Consider:

- Growth/Density/Urbanization – Population projected to double from current 7 Million by 2060.
- Drought – impacts to water supply, vegetation/crops/farming, wildfires, recreation, energy system cooling, water quality, etc.. The seven-year drought of record in the 1950s was a turning point in Texas history with the most severe drought since beginning in 2011. (<https://waterdatafortexas.org/drought>)
- Flooding is the most common type of natural disaster worldwide; Texas Ranks #1 in Flood Insurance Loss at \$2,249,450,933 from 1978 to 2001; Texas is the state with the most flood/flash flood deaths in the past 36 years (76% are vehicle-related). (<http://floodsafety.com/national/life/statistics.htm#biblio>)
- Urban heat – effects public health, agricultural crops, energy demands, water demands. Dallas has the most rapidly growing heat islands in the country, behind only Louisville and Phoenix. In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation. In the disastrous heat wave of 1980, more than 1,250 people died. (<http://www.nws.noaa.gov/om/brochures/heatwave.pdf>)
- Tornadoes – since 2010 there have been 222 tornadoes in North & Central TX (<http://www.weather.gov/fwd/fwdtornadoes>)
- Ice Storms – Six inches of ice accumulated in parts of northwest Texas on Jan. 22-24, 1940; New Year's Eve 1978 was the worst ice storm in North Texas in three decades; and who doesn't remember the icy mess of Super Bowl week in February 2011? (<https://weather.com/storms/winter/news/top-10-worst-ice-storms-20131205>)
- Wildfire – in 2011 FEMA approved \$65,205,648 in Individual and Public Assistance funds under a Major Disaster Declaration for Texas Wildfires (DR-4029) (<https://www.fema.gov/disaster/4029>)

Contact

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