

# Smart Growth

Building Thriving Cities and a Sustainable Future





## **STORMWATER**

Increased runoff,  
flooding, and water  
quality issues



## **HAZARDOUS MATERIALS**

Hazmat sites and  
landfills



## **COMMUNITY/ EQUITY**

Community cohesion  
and gentrification



## **HEAT ISLAND EFFECT**

Increased heat from  
paved surfaces



## **AIR QUALITY**

Traffic and industrial  
pollution

# **Urban Expansion Challenges**



• Mixed-Use  
Development



• Active  
Transportation



• Open Space



• Community  
Involvement



• Sustainable  
Stormwater



• City Planning



# Mixed-Use Development



## WHAT IS IT

Integrating work and living in the same area either vertical or horizontal



## BENEFITS

Built-in cliental for the commercial properties, decreased risk for developers, efficient use of land, and increased residential attraction



## OBSTACLES

Zoning issues, infrastructure limitations, difficulties in financing, equality



## CHALLENGES ADDRESSED

Community/Equity, Heat Island Affect, Air Quality



## LOCAL EXAMPLES

Mockingbird Station, Addison Circle, Legacy Town Center, Panther Island





# Active Transportation



## **WHAT IS IT**

Adding trails and pathways for bicycle and pedestrian uses



## **BENEFITS**

Healthier communities, reduction in vehicular traffic, supports small businesses, promotes increased tourism, reclaiming hazardous properties



## **OBSTACLES**

Integration with traffic, retrofitting into existing roads, active planning, behavior patterns



## **CHALLENGES ADDRESSED**

Stormwater, Hazardous Materials, Community/Equity, Heat Island Affect, Air Quality



## **LOCAL EXAMPLES**

The Loop Dallas, Regional Veloweb, The Pedestrian Bridge, Fort Worth Bike Sharing

# Open Spaces



## WHAT IS IT

Parks, nature areas, urban gardens, green rooftops, and undeveloped green areas

## BENEFITS

Healthier communities (mental and physical), increased tourism, economic driver, increased property values, reclaiming landfills and hazardous spaces

## OBSTACLES

Available land, ingress and egress, funding, maintenance, animal nuisances, and planning

## CHALLENGES ADDRESSED

Stormwater, Hazardous Materials, Community/Equity, Heat Island Affect, Air Quality

## LOCAL EXAMPLES

Klyde Warren Park, Trinity River Audubon Center, Fort Worth Nature Center & Refuge, The Dallas Urban Garden, all the small neighborhood and local parks



# Community Involvement



## **WHAT IS IT**

Active outreach to the local community through meetings, websites, and social media



## **BENEFITS**

Clear feedback for the community direction, greater support for changes even if negative, new ideas, inclusion of disadvantaged populations



## **OBSTACLES**

Cost, changes to design and ideas, can foster greater negative pushback, mental strain on employees



## **CHALLENGES ADDRESSED**

Community/Equity



## **LOCAL EXAMPLES**

Denton 360, [theloopdallas.org](http://theloopdallas.org), [@tarrantcountytexas](https://www.instagram.com/tarrantcountytexas)





# Sustainable Stormwater

## WHAT IS IT

Green stormwater infrastructure such as bio-swells, bioretention, silva cells, permeable pavements, nature streams

## BENEFITS

Reduces erosion, slows water runoff, increases water quality, community, residential and business attraction

## OBSTACLES

Cost, can be difficult to maintain, not a “standard” design, animal nuisances, increased land requirements

## CHALLENGES ADDRESSED

Stormwater, community/equity, heat island effect, air quality

## LOCAL EXAMPLES

Southlake Biopod, University Park Micro-detention, College Park District, Dallas Water Gardens, Lewisville Main St & Mill St





# City Planning



## WHAT IS IT

Plan, plan, and more plans



## BENEFITS

Grow your cities and counties how you want, allows out-of-the-box improvements



## OBSTACLES

Takes time, takes dedication, cost



## CHALLENGES ADDRESSED

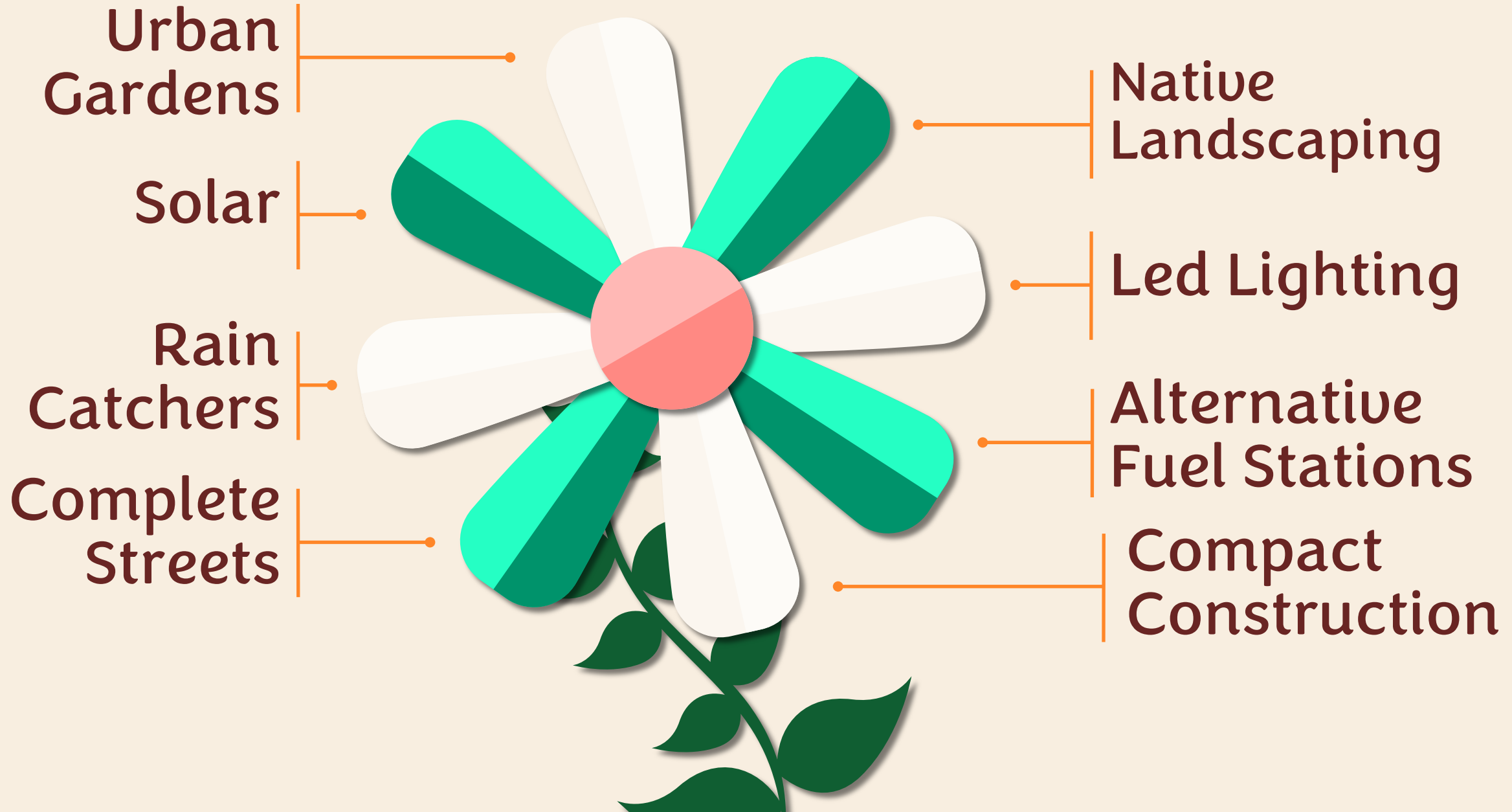
Stormwater, community/equity, heat island effect, air quality, and more!



## LOCAL EXAMPLES

All the cities and counties in the Dallas-Fort Worth region

# Other Green Infrastructure

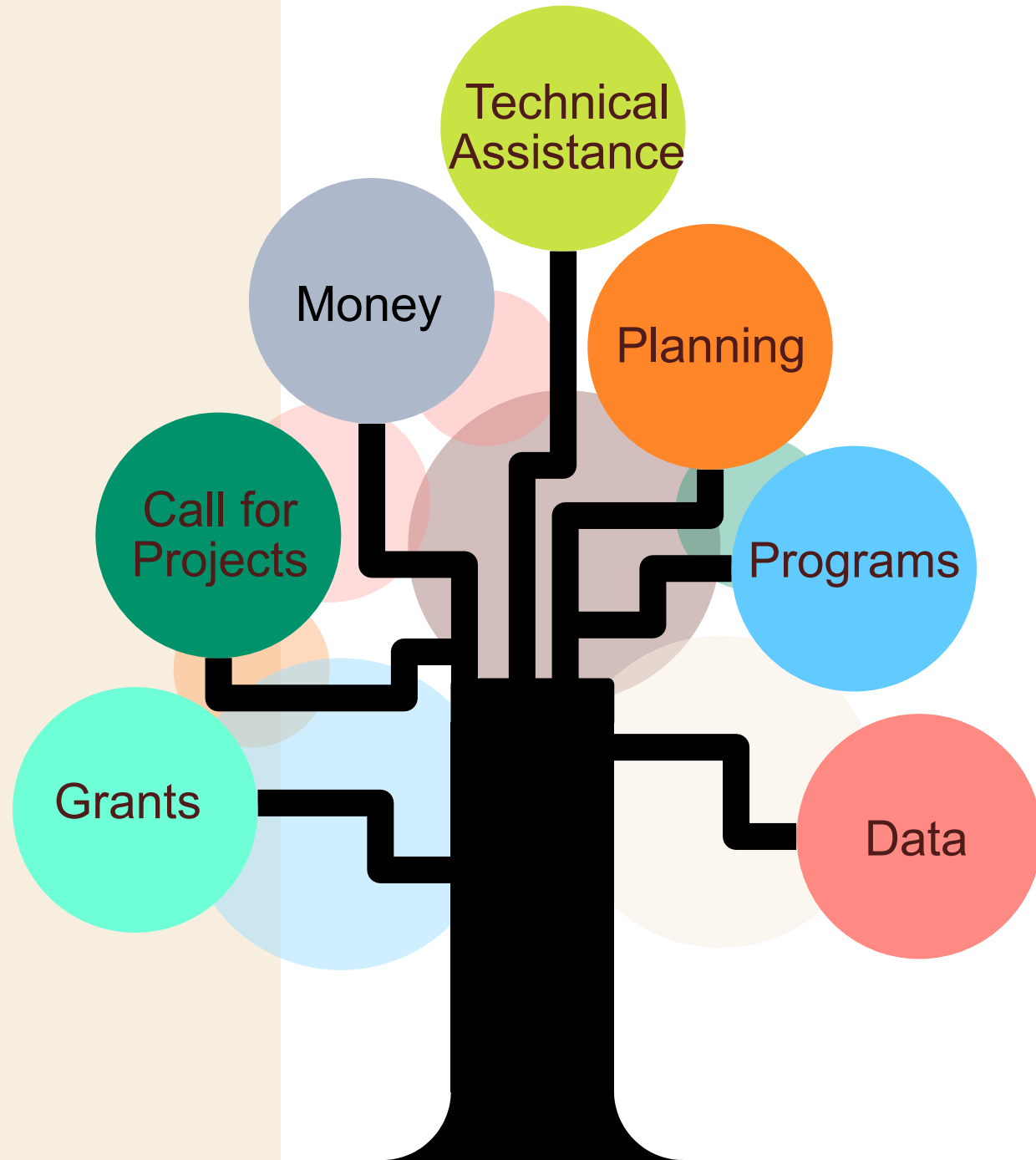


**NCTCOG CAN HELP!**





# NCTCOG Support



# iSWM Program

*integrated* **Stormwater  
Management**



## REDUCE FLOODING

More effective designs to handle stormwater

## PROTECT PROPERTY VALUES

Reduces erosion to protect properties

## IMPROVE WATER QUALITY

New tools to improve water quality

## MEET STATE/FEDERAL REGULATIONS

Compatible with existing state and federal regulations

## REDUCE OPERATION COST

Emphasize sustainable systems to reduce lifetime cost

## NCTCOG TECHNICAL ASSISTANCE

Assistance in implementing iSWM strategies

# Collin County Mixed-Use Study

## PHASE 1: PILOT PROJECT

Collin County  
mixed-use  
development  
focus

Develop  
methodology

Trial run

Summary  
Report

## PHASE 2: REGIONAL STUDY

NCTCOG  
identify  
funding

Hire  
consultant

Regional  
focus

Larger  
comprehensive  
data collection



# Center of Development Excellence



CENTER of  
DEVELOPMENT EXCELLENCE  
for the future of North Central Texas

Image: <https://www.developmentexcellence.com/>

## COLLABORATIVE PARTNERSHIP

Resiliency

Sustainability

High Quality  
of Life



Fort Worth Botanical Gardens Master Plan



West Irving Library



Southwest Nature Preserve



CLIDE  
Celebrating Leadership In Development Excellence



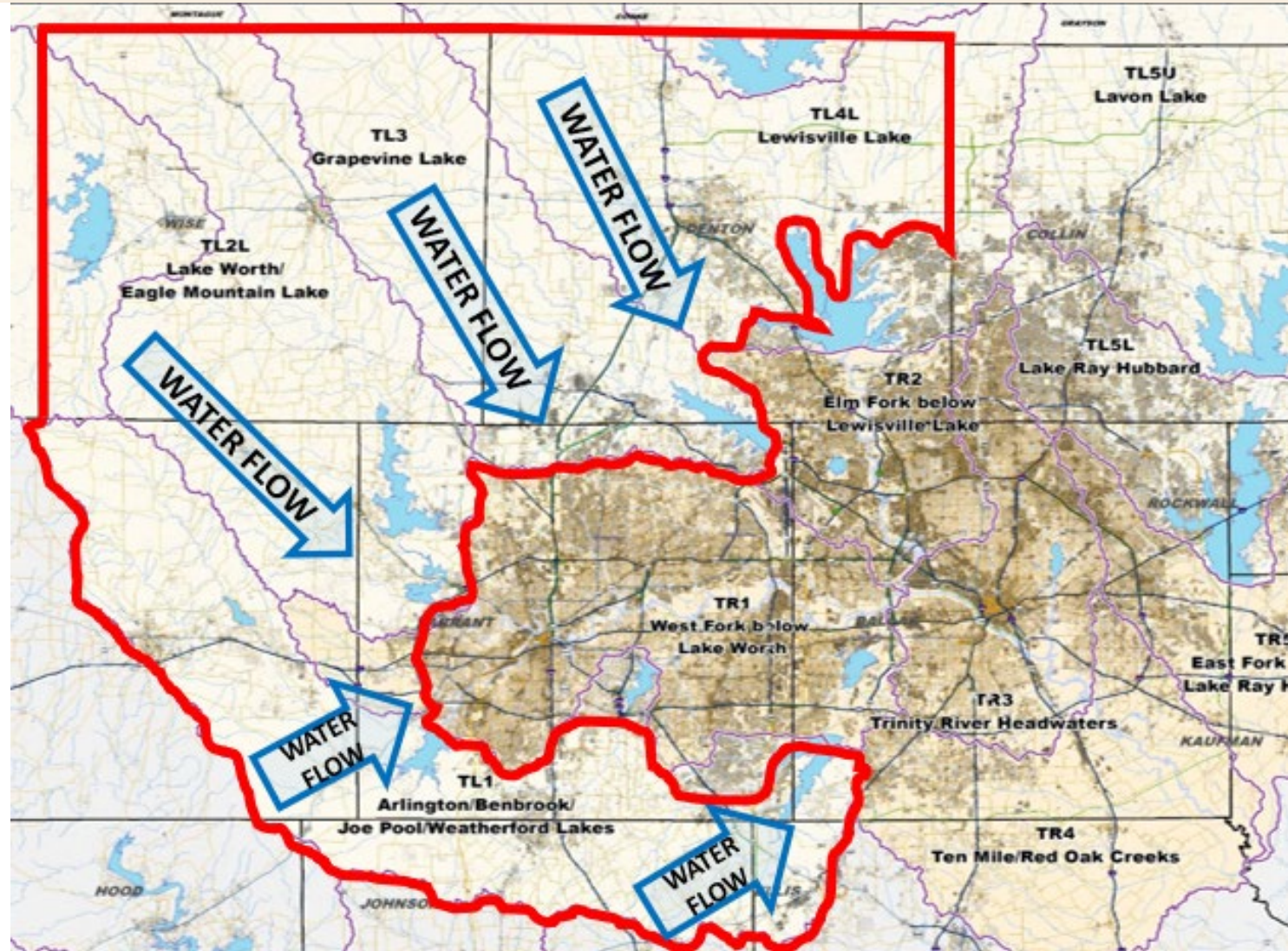
**Vision North Texas**  
Understanding Our Options For Growth

# Upper Trinity River Transportation and Stormwater Infrastructure Project

## AT THE WATERSHED LEVEL

Increased extreme weather events necessitates a proactive regional approach to stormwater and flooding

The TSI project is a collaborative grant with the U.S. Army Corps of Engineers and other local and regional partners to address the downstream effect of stormwater and identify critical infrastructure for the Trinity River and the region.





# Links

iSWM

<https://iswm.nctcog.org/>

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Center of Development  
Excellence

<https://www.developmentexcellence.com/>

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TSI

[https://www.nctcog.org/envir/watershed-  
management/upper-trinity-river-  
transportation-and-stormwater](https://www.nctcog.org/envir/watershed-management/upper-trinity-river-transportation-and-stormwater)

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NCTCOG Sustainable  
Development

<https://www.nctcog.org/trans/plan/land-use>

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NCTCOG Environment &  
Development

<https://www.nctcog.org/envir>





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North Central Texas  
Council of Governments

## Thank You!