

COMPREHENSIVE ENVIRONMENTAL + CLIMATE ACTION PLAN (CECAP)

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS
PUBLIC WORKS ROUNDUP

SEPTEMBER 17, 2020



MISSION

“With equity and inclusion as core values, the CECAP proposes solutions that will improve our natural environment, our educational and economic outcomes, the affordability of our housing stock, and our transportation systems”

- Mayor Eric Johnson



ENVIRONMENT & CLIMATE CHALLENGES



Extreme Heat: *30-60 more extreme days per year by 2100*



Average Annual Temperature: *5° F increase by 2050*



Poor Air Quality: *Exacerbated by increasing heat*

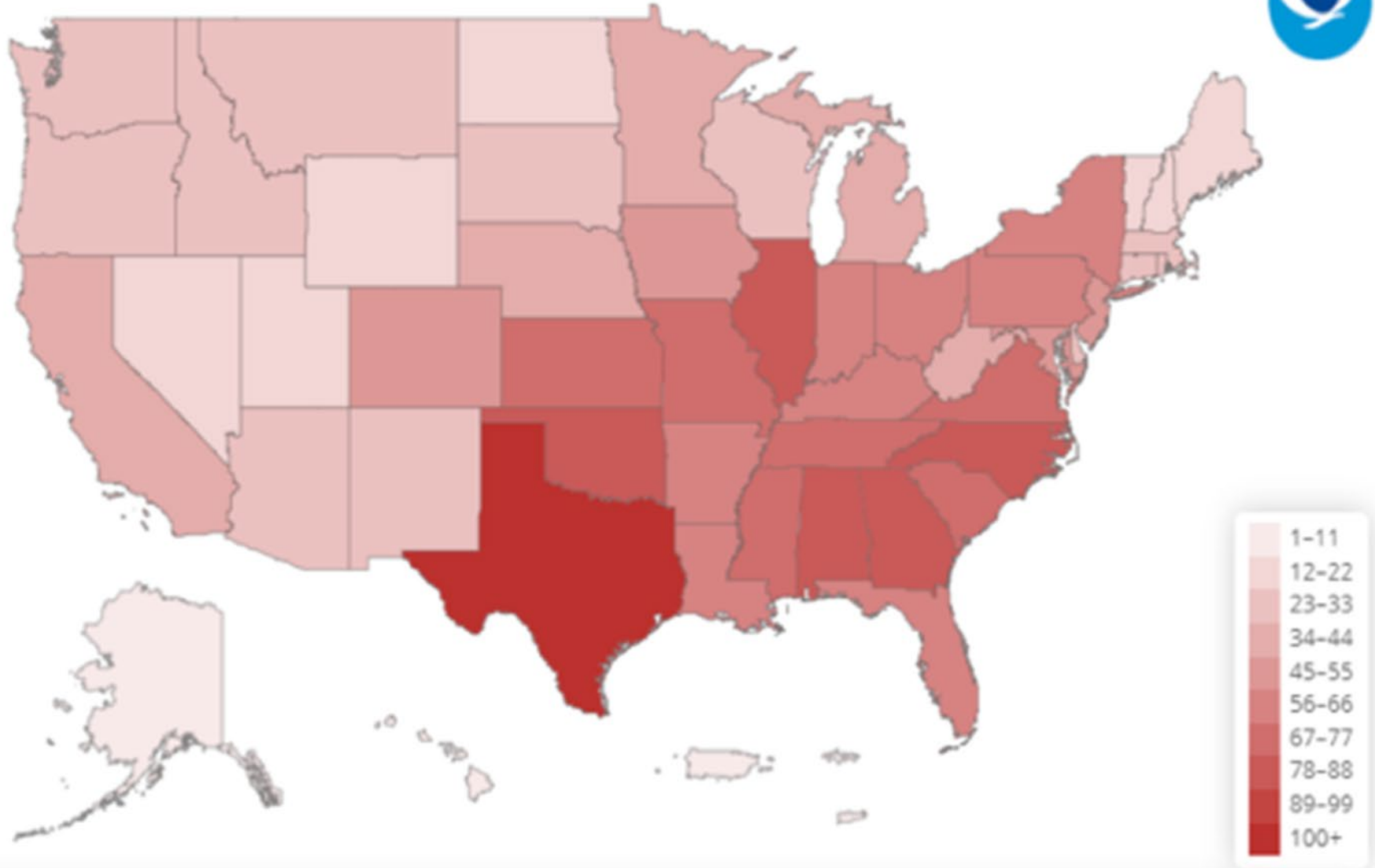


Flooding: *40% increase in extreme storms by 2100*



Drought: *Exacerbated by increasing heat*

1980-2019 Billion-Dollar Weather and Climate Disasters (CPI-Adjusted)



United States

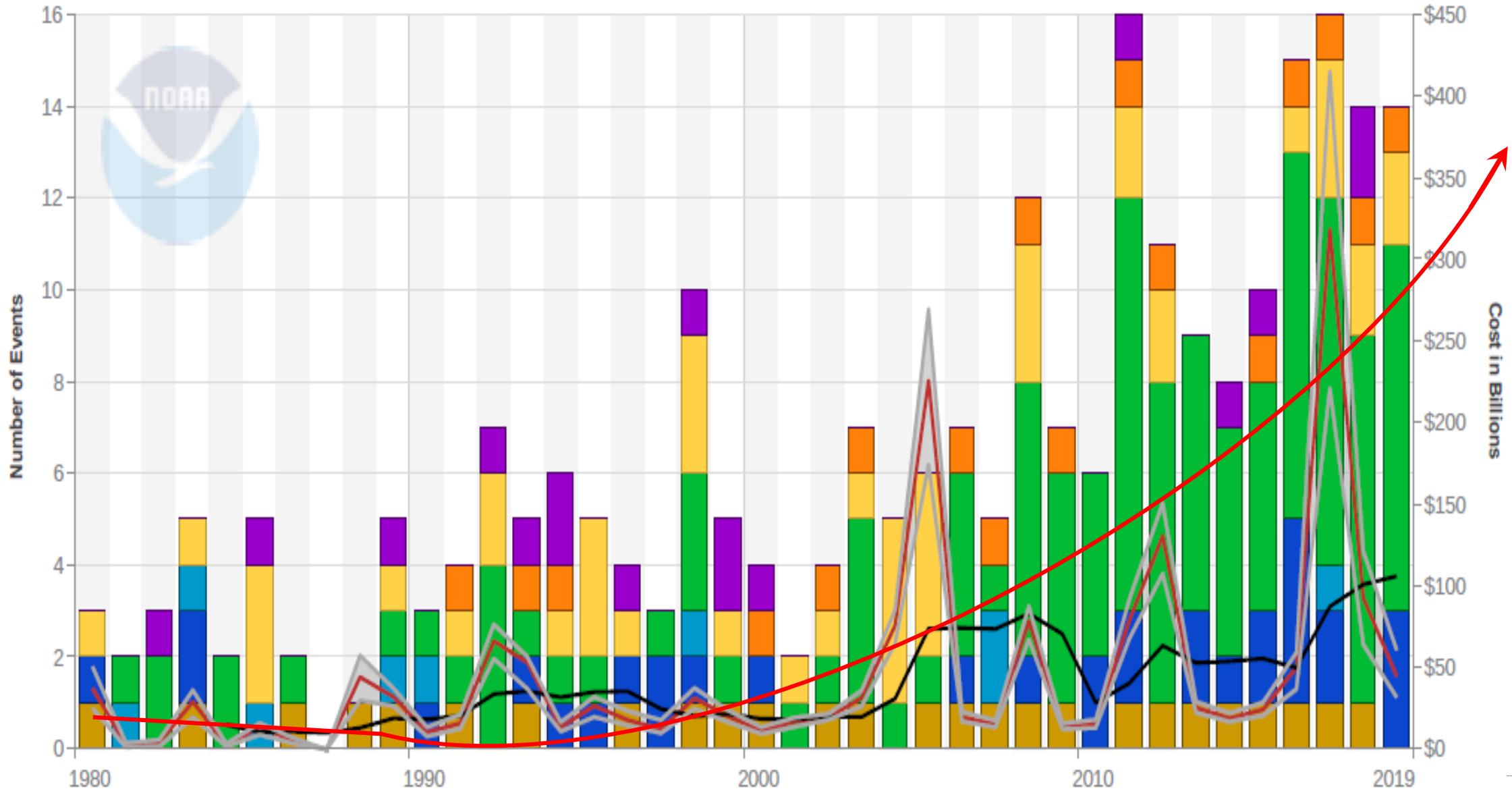
■ Drought: 26	■ Flooding: 32	■ Freeze: 17	■ Severe Storm: 9	113
■ Tropical Cyclone: 44	■ Wildfire: 17	■ Winter Storm: 17	■ All Disasters: 17	1258



United States Billion-Dollar Disaster Events 1980-2019 (CPI-Adjusted)



- Drought Count
- Flooding Count
- Freeze Count
- Severe Storm Count
- Tropical Cyclone Count
- Wildfire Count
- Winter Storm Count
- All Disasters Cost
- Costs 95% CI
- 5-Year Avg Costs



Updated: January 8, 2020

Moody Investors Series Inquiry



Exhibit 4

Cities with largest investment in climate mitigation projects planned or underway

Among survey respondents, \$ millions



Source: Moody's Investors Service



Greenhouse Gas Emissions



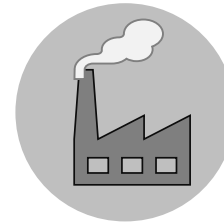
64%

Buildings + Energy



34%

Transportation



3%

Industrial processes



1%

Solid waste + wastewater treatment

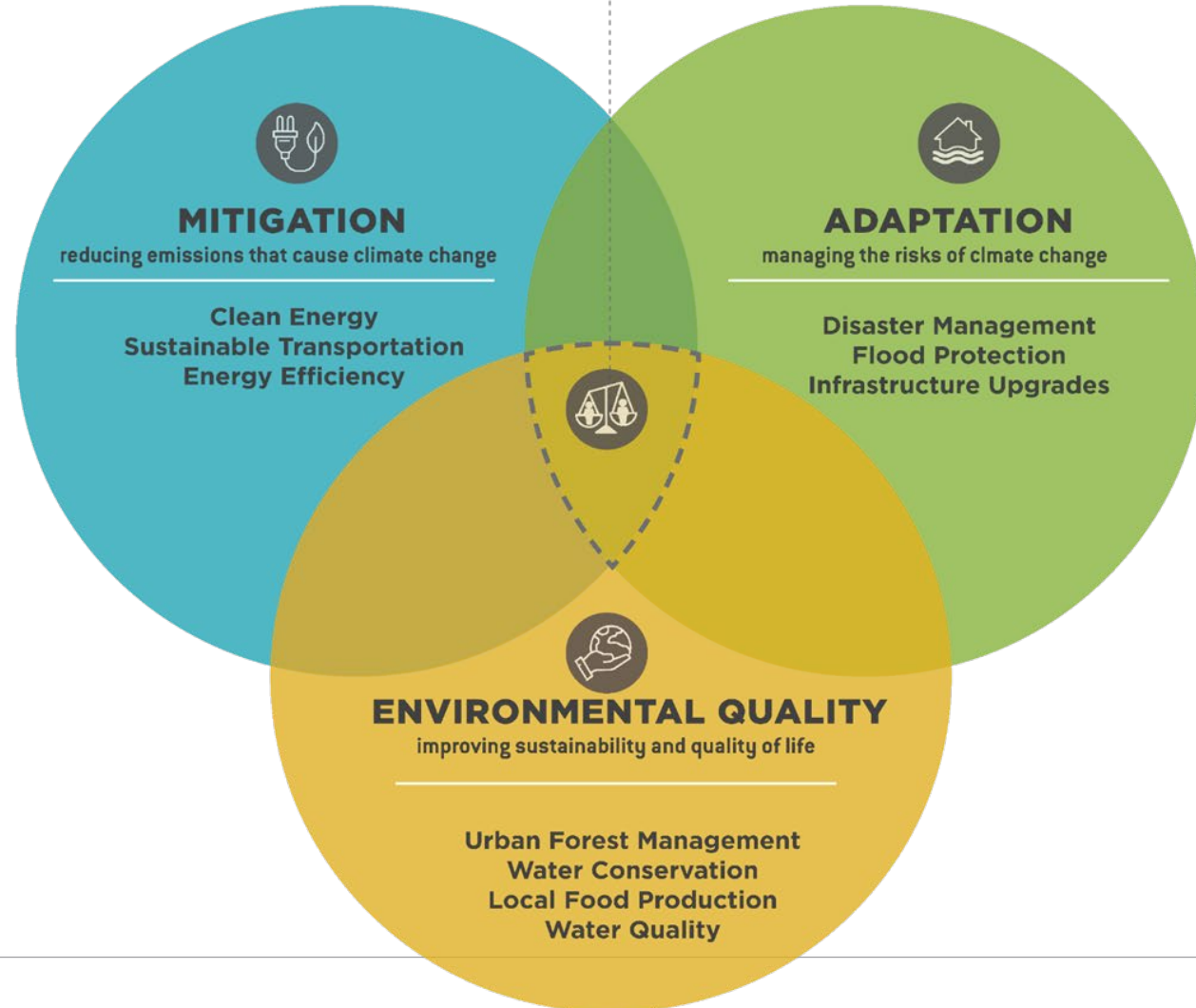


Achieving Environmental Justice



INTERSECTION OF MITIGATION, ADAPTATION & ENVIRONMENTAL QUALITY

ENVIRONMENTAL JUSTICE
prioritizing communities most impacted or most in need across all actions



Action Overview



97
CECAP Actions

SECTORS / GOALS

-  **16**
BUILDINGS
-  **11**
ENERGY
-  **19**
TRANSPORTATION
-  **09**
SOLID WASTE
-  **15**
WATER RESOURCES
-  **09**
ECOSYSTEMS
-  **14**
FOOD + URBAN
AGRICULTURE
-  **04**
AIR QUALITY

PRIMARY BENEFIT

-  **45**
MITIGATION
-  **21**
ADAPTATION
-  **20**
ENVIRONMENTAL
QUALITY
-  **11**
ENVIRONMENTAL
JUSTICE

CO-BENEFITS

-  **46**
IMPROVE PUBLIC
HEALTH + WELL-BEING
-  **40**
PROVIDE COST
SAVINGS
-  **31**
IMPROVE
AIR QUALITY
-  **28**
PROVIDE EDUCATION,
SKILLS OR TRAINING
-  **24** IMPROVE ACCESS
TO EMPLOYMENT /
JOB CREATION
-  **15**
REDUCE INEQUALITY
+ POVERTY
-  **17**
REDUCE GHG
EMISSIONS
-  **08** INCREASE
NATURAL RESOURCE
CONSERVATION
-  **11**
IMPROVE WATER
QUALITY
-  **13**
REDUCE RESOURCE
CONSUMPTION
- **10** PROMOTES
ENVIRONMENTAL
STEWARDSHIP
- **10**
REDUCE
VULNERABILITY



Target Overview



NET ZERO ENERGY NEW CONSTRUCTION
ENERGY USE IN EXISTING RESIDENTIAL BUILDINGS



SOLAR POWER GENERATED
RENEWABLE ELECTRICITY PLANS



PUBLICLY AVAILABLE EV CHARGING
ELECTRIC FLEETS
SINGLE OCCUPANT VEHICLE TRAVEL MODE SHIFT



ORGANIC WASTE
PAPER WASTE
LANDFILL DIVERSION



WATER CONSUMPTION
WATER FOR INDIRECT REUSE
IMPAIRED WATERBODIES LISTED IN WATERSHED
GHG EMISSIONS FROM TREATMENT FACILITIES



CANOPY COVER CITYWIDE
URBAN HEAT ISLAND INDEX
PARK OR TRAIL ACCESS



HEALTHY, AFFORDABLE FOOD ACCESS
ACRES OF URBAN GARDENS
RESTAURANTS, FARM STANDS, OR MARKETS SOURCING FROM LOCAL PRODUCERS



GROUND LEVEL OZONE
AIR POLLUTANTS





GOAL 1: DALLAS' BUILDINGS ARE ENERGY EFFICIENT AND CLIMATE RESILIENT.



Objectives

- Increase energy efficiency of existing buildings or facilities.
- Ensure that new buildings are constructed sustainably and are carbon neutral.
- Increase climate resilience for new and existing buildings through structural and operational improvements.

16 related actions to address 34% emissions

OEQS + Aviation, Building Services Department, Housing, Park and Recreation, the Bond Office, Sustainable Development + External Partners





GOAL 2: DALLAS GENERATES AND USES RENEWABLE, RELIABLE, AND AFFORDABLE ENERGY.



Objectives

- Maintain a high degree of reliability during extreme weather events.
- Encourage investment in, and greater use of, renewable energy.
- Ensure affordable access to renewable electricity.

11 related actions to address next 30% emissions

OEQS + Building Services Department+
External Partners





GOAL 3: DALLAS' COMMUNITIES HAVE ACCESS TO SUSTAINABLE, AFFORDABLE, TRANSPORTATION OPTIONS.



Objectives

- Shift the surface transportation system to move people and goods in fuel-efficient vehicles.
- Reduce trips where people drive alone.
- Synergize jobs and housing with transportation infrastructure to increase access to walking and biking options, and public transit.
- Ensure that walking, biking, public transit, vehicular transportation infrastructure is reliable and safe.

19 actions to address 34 percent of emissions in Dallas

OEQS + Fleet Management Services, Housing Transportation, Public Works, Office of Economic Development, Planning + Urban Design, the Bond Office, Sustainable Development, Office of Business Diversity, + External Partners (DART, NCTCOG)





GOAL 4: DALLAS IS A ZERO WASTE COMMUNITY

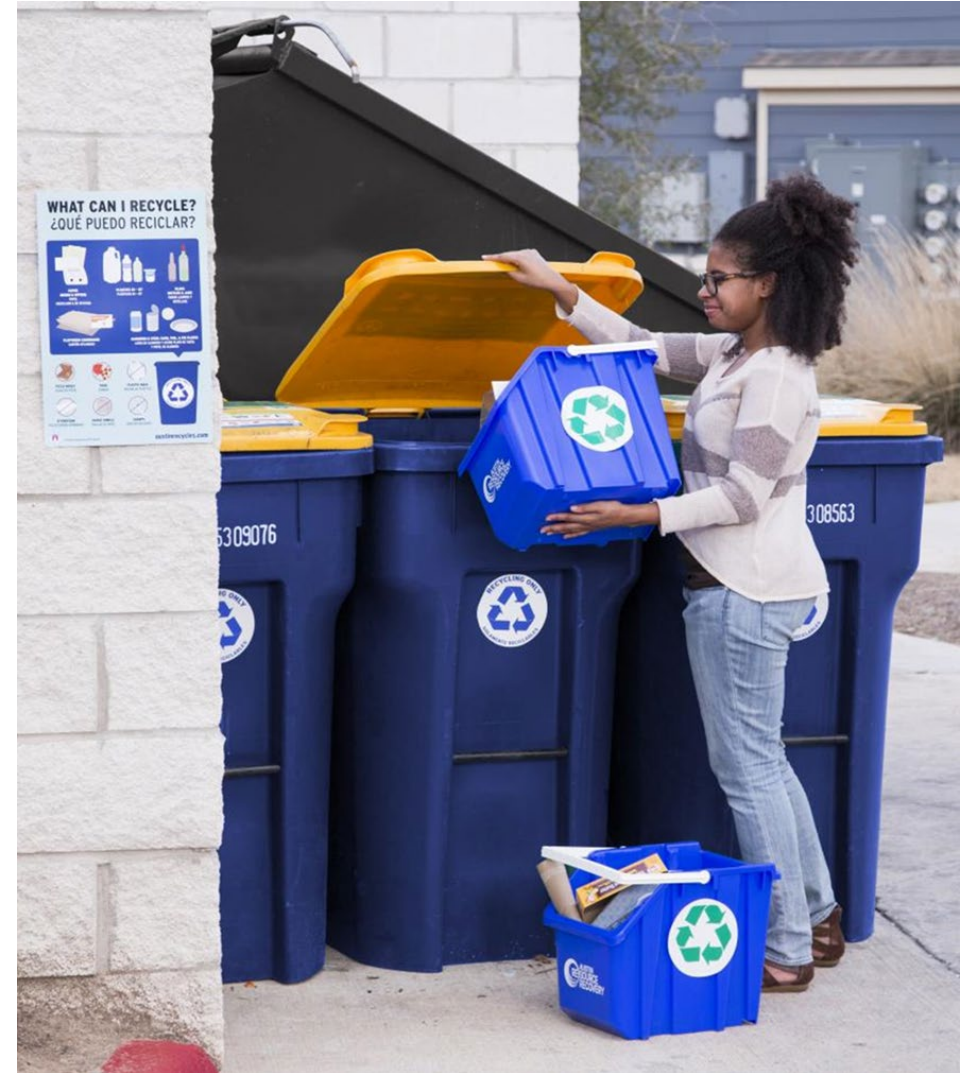


Objectives

- Create opportunities to go beyond recycling and choose to refuse, reduce, reuse and repair.
- Operate a clean, green and efficient waste system.
- Generate energy from organics.

9 Actions in Waste sector

OEQS + Sanitation Services Department , Office of Innovation + External Partners





GOAL 5: DALLAS PROTECTS ITS WATER RESOURCES AND ITS COMMUNITIES FROM FLOODING AND DROUGHT.



Objectives

- Conserve and protect our water resources through community stewardship, educational programs and best management practices.
- Protect neighborhoods from flooding and prepare them for droughts.
- Be a regional leader in water resilience by leveraging innovative approaches, strategies and technologies.

15 actions identified in water resources, mostly based on current DWU planning



OEQS + Dallas Water Utilities, Park and Recreation, the Bond Office, Sustainable Development + External Partners

15





GOAL 6: DALLAS PROTECTS AND ENHANCES ITS ECOSYSTEMS, TREES AND GREEN SPACES THAT IN TURN IMPROVE PUBLIC HEALTH.



Objectives

- Leverage green spaces to provide climate adaptation benefits.
- Increase, enhance and maintain healthy forests, parks, and green spaces.
- Integrate nature-based solutions into the public realm as a public health strategy.

9 Actions related to ecosystems and green spaces

OEQS + Park and Recreation, The Bond Office, Sustainable Development, Planning + Urban Design, Dallas Water Utilities + External Partners





GOAL 7: ALL DALLAS' COMMUNITIES HAVE ACCESS TO HEALTHY, LOCAL FOOD.



Objectives

- Build organizational capacity and partnerships.
- Improve food access in neighborhoods with low food access.
- Reduce food miles by encouraging local food production & consumption.
- Prepare the food system to be more resilient to extreme weather events.
- Prevent food waste through food donations, recovery, diversion and composting.



14 Food + Urban Agriculture Actions



OEQS + Office of Innovation-Food Task Force, Library, Office of Community Care, Office of Economic Development, Code Services, Sanitation Services, + External Partners



GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.

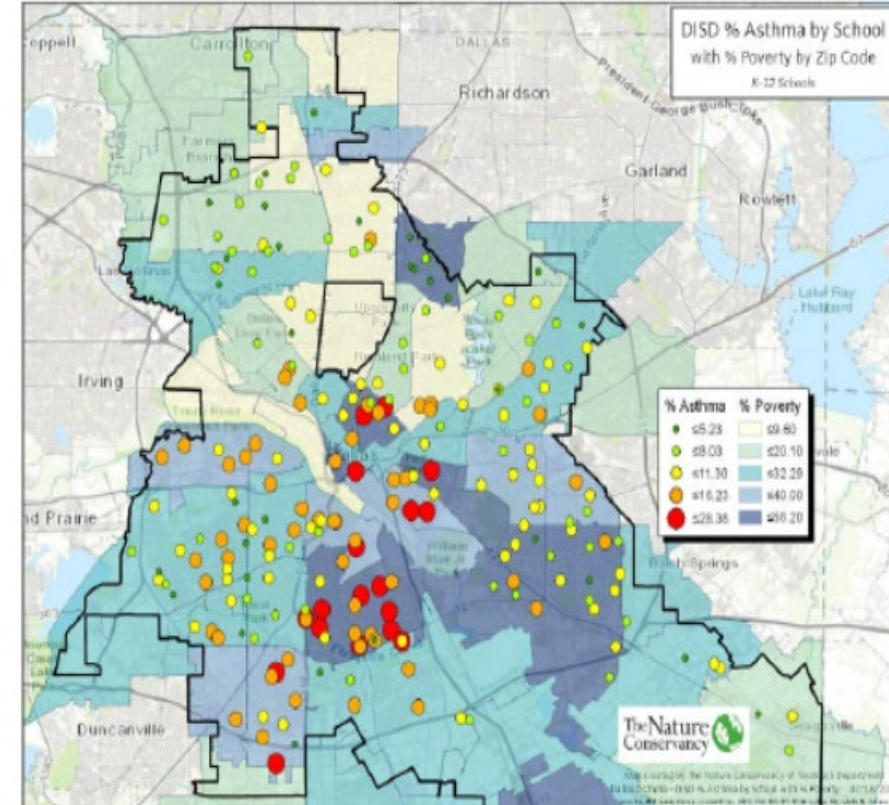


Objectives

- Take a comprehensive approach to addressing air quality at the neighborhood level. **(4 Actions)**

Cross Cutting Objectives

- Increase energy efficiency of existing buildings or facilities.
- Reduce trips where people drive alone.
- Synergize jobs & housing with transportation infrastructure.
- Increase, enhance and maintain healthy forests, parks, and green spaces, that improve air quality.
- Operate a clean, green & efficient waste system.



TNC. 2020. DISD % Asthma by School with % Poverty

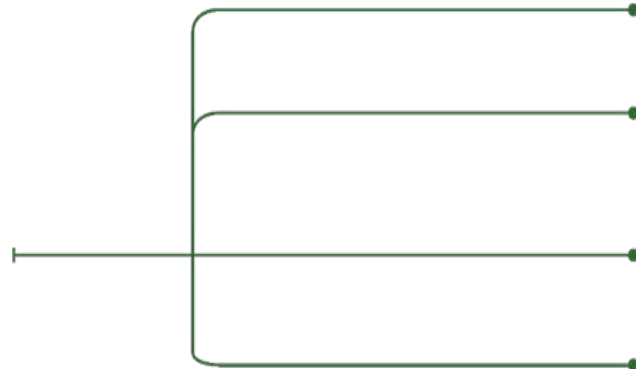




GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.



Take a comprehensive approach to addressing air quality at the neighborhood level



Work with the Texas Commission on Environmental Quality to install additional air quality monitoring stations across the city.

Partner with nonprofits and schools to develop and implement non-regulatory monitors in neighborhoods.

Continue to support and expand on the Air North Texas campaign to raise public awareness and improve air quality.

Ensure new industries are an appropriate distance away from neighborhoods.

OEQS + External Partners: TCEQ, NCTCOG, The Nature Conservancy, Texas A&M University Transportation Institute, Center for Applied Research for Transportation, Emissions, and Health, Parkland, Children's Health and Many Others



A large group of people is participating in a rooftop yoga session. They are sitting on colorful mats (purple, blue, pink, green) on a rooftop platform. In the background, a city skyline with various skyscrapers is visible under a clear blue sky. Several people in high-visibility vests are standing near the edge of the rooftop, possibly acting as safety monitors. The overall atmosphere is bright and active.

The Outcome:

Reducing emissions, addressing climate and environmental risks and improving quality of life for all residents

Implementation Planning



- Work with other City departments and appropriate partners to **develop sector specific immediate implementation plans.**
- **Initiate quarterly meetings of Department leadership** to coordinate planning efforts, and progress on plan
- **Continue 15 actions** that are currently underway; initiate 27 others in FY 20-21, to help to shape follow-on efforts.
- **Initiate most actions** in the near time frame (**0-2 years**);
- Implement all actions within the **first 10 years** of the plan
- Update **the plan at least every three years** using new **Greenhouse gas data.**



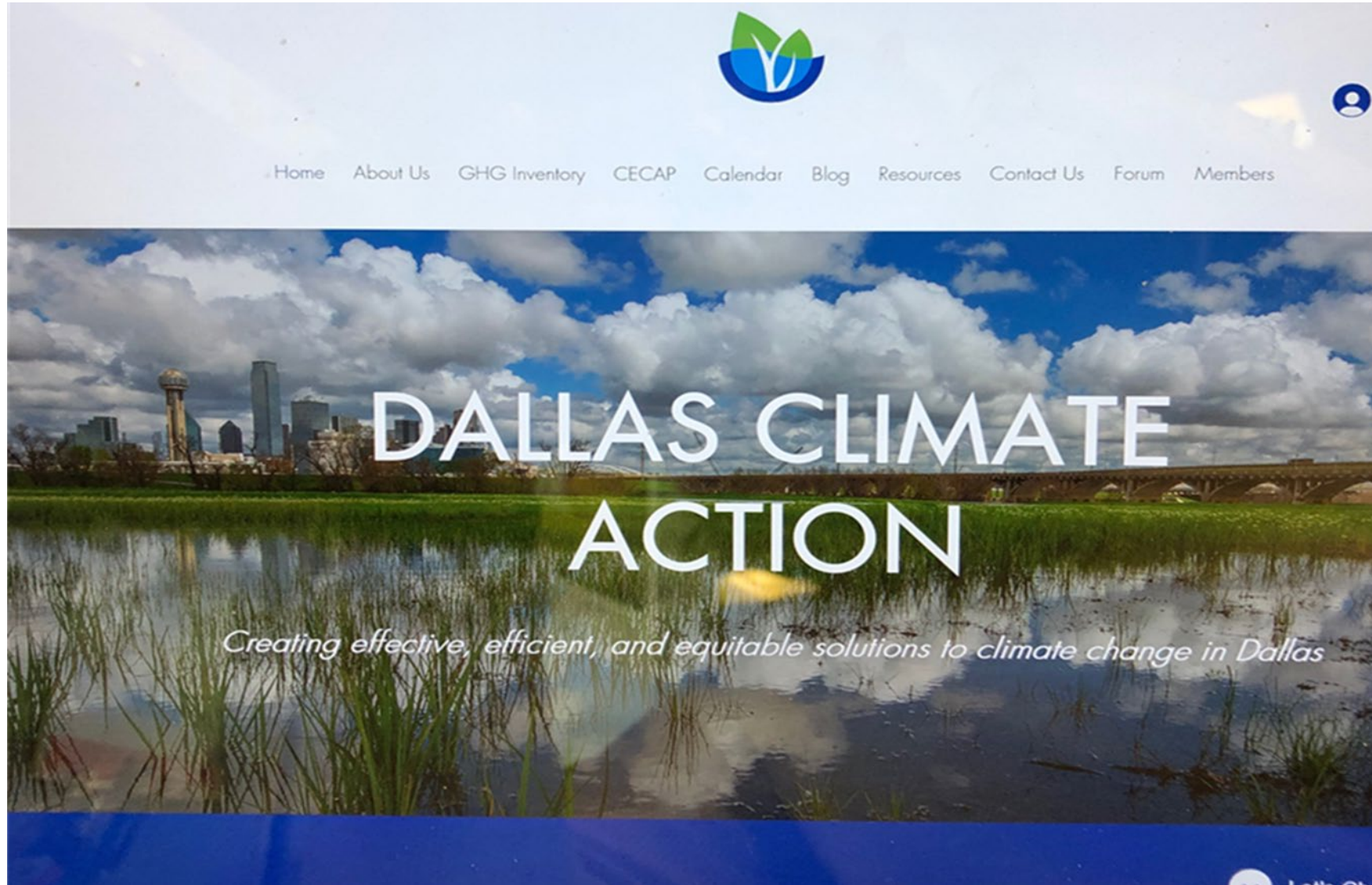
Critical Ancillary Planning Efforts



Plan	CECAP Action Item	Lead Department	Status
Energy Management System/Plan	E8	Building Services Department	Underway; ETA FY 2021
Fleet Electrification Plan	T1	Fleet Services Department	FY 20-21
Connect Dallas <i>Strategic Mobility Plan</i>	T5	Department of Transportation	Underway; ETA Fall 2020
Pedestrian Sidewalk Plan	T4, T8	Public Works	Underway;
DART Bus Route Redesign	T9	DART	Underway; 2021-2022
Forward Dallas <i>Comprehensive Land Use Plan Update</i>	T11	Planning and Urban Design	Starting; reviewing RFPs. ETA 2021/2022
Urban Agriculture Plan	FA3	OEQS & Office of Innovation	Underway
Urban Forest Master Plan	EG3	OEQS, Texas Trees, Davis Tree Service, Several City Departments	Underway; ETA Fall 2020
Zero Waste Plan <i>Local Solid Waste Management Plan Update</i>	SW5	OEQS & Sanitation Services	Underway; ETA 2021-2022
Water Conservation Plan	WR1	OEQS & DWU	Plan in Use
Comprehensive Storm Drainage System Assessment & Plan	WR9	DWU & External Consultants	Underway; ETA 2021-2022



For More Information...



One More Thing...



- NCTCOG – New Work Group!
- Regional Implementation of Sustainability Efforts
- Working together to address regional emissions/ impacts
- “Together we do it better”
 - Sustainable Public ROW
 - Transportation Planning
 - Drainage/ Water Quality
 - Water Supply
 - Air Quality



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Thank you!

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