City of Dallas 1500 Marilla Street, Council Chambers, 6th Floor Dallas, Texas 75201 **Environment and Sustainability Committee** August 1, 2022 9:00 AM

(For General Information and Rules of Courtesy, Please See Opposite Side.) (La Información General Y Reglas De Cortesía Que Deben Observarse Durante Las Asambleas Del Consejo Municipal Aparecen En El Lado Opuesto, Favor De Leerlas.)

General Information

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[INSERT LINK]

Call to Order

MINUTES

A. <u>22-1612</u> Approval of the June 6, 2022 Committee Minutes

<u>Attachments:</u> <u>Minutes</u>

BRIEFING ITEMS

Β. 22-1613 **Fleet Electrification Analysis** [Donzell Gipson, Director, Equipment & Fleet Management; Vincent Assistant Director, Fleet Olsen. Equipment & Jeffers, Management; Ken Kelly, Cory Sigler, Matt National Renewable Energy Laboratory]

Attachments: Presentation

C. <u>22-1614</u> Gas-Powered Landscape Equipment Policies [Susan Alvarez, Assistant Director, Office of Environmental Quality & Sustainability]

Attachments: Presentation

D. <u>22-1615</u> Environmental Commission Update [Kathryn Bazan, Chair, Environmental Commission]

BRIEFING MEMOS

E. <u>22-1616</u> Bachman Lake Dredging Update Terry Lowery, Director, Dallas Water Utility; Matthew Penk, Assistant Director, Dallas Water Utility; Marc Cottingame, Engineering Program Administrator, Dallas Water Utility

Attachments: Memorandum

F. <u>22-1618</u> City Forestry Quarterly Update Carl Simpson, Assistant City Manager

<u>Attachments:</u> <u>Memorandum</u>

 G. <u>22-1642</u> Environmental Justice Update [Paul White II, Superintendent, Air, Soil, & Groundwater Division, Office of Environmental Quality & Sustainability; Lori Trulson, Senior Environmental Coordinator, Office of Environmental Quality & Sustainability]

Attachments: Memorandum

H. <u>22-1643</u> OEQS Environmental Legislative Priorities [Pharr Andrews, Senior Climate Coordinator, Office of Environmental Quality & Sustainability]

Attachments: Memorandum

DISCUSSION ITEM

I. <u>22-1619</u> Environment & Sustainability Committee Priorities for Upcoming Fiscal Year

UPCOMING AGENDA ITEMS

J. 22-1590 Authorize (1) the acceptance of a grant from the Texas Commission on Environmental Quality (TCEQ) for the Air Pollution Compliance Program (Contract No. 582-23-40125) in the amount of \$2,525,585.00 to continue to provide investigation services and complaint response within the City of Dallas for the period September 1, 2022 through August 31, 2027; (2) the receipt and deposit of funds in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund; (3) the establishment of appropriations in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund; (4) a required local match in the amount of \$1,243,944.85 over the five year period; and (5) execution of the contract with TCEQ for the Air Pollution Compliance Program and all terms, conditions, and documents required by the agreement - Not to exceed \$3,769,529.85 -Financing: Texas Commission on Environmental Quality Grant Funds (\$2,525,585.00) and General Fund (\$1,243,944.85)(subject to annual appropriations)

Attachments: Resolution

K. 22-1591 Authorize the (1) acceptance of a grant from the U.S. Environmental Protection Agency through the Texas Commission on Environmental Quality (TCEQ) (Contract No. 582-23-40028, CFDA Nos. 66.034 and 66.605) in the amount of \$96,707.48 to operate the ambient air monitoring station in Rockwall County and air quality monitoring of the Particulate Matter (PM) 2.5 network, for the period September 1, 2022 through August 31, 2023; (2) receipt and deposit of funds in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Monitoring Program Fund; (3) establishment of appropriations in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM Monitoring Program Fund; and (4) execution 2.5 Air of the contract and all terms, conditions, and documents required by the Not to exceed \$96,707.48 agreement -Financing: Texas Commission on Environmental Quality Grant Funds

Attachments: Resolution

22-1592 L. Authorize the (1) first amendment to the contract with the Texas Commission on Environmental Quality (TCEQ) for the Whole Air Monitoring Program (Contract No. 582-21-22370, CFDA No. to accept additional grant funds in an amount not to 97.091) U.S. exceed \$425,924.25 from the Environmental Protection Agency passed through the TCEQ, to continue the Whole Air Monitoring Program for the period September 1, 2022 through August 31, 2023; (2) receipt and deposit of funds in an amount 22-23 Whole not to exceed \$425,924.25 in the TCEQ Air Monitoring Program Fund; (3) establishment of appropriations in an amount not to exceed \$425,924.25 in the TCEQ 22-23 Whole Air Monitoring Program Fund; and (4) execution of the contract and all terms, conditions, and documents required by the agreement - Not to exceed \$425,924.25, from \$581,027.03 to \$1,006,951.28 - Financing: Texas Commission on Environmental **Quality Grant Funds**

Attachments: Resolution

Μ. 22-1537 Authorize (1) the acceptance of a grant from the Environmental Protection Agency through the North Central Texas Council of Governments for an award through the "Clean Fleets North Texas 2020 Call for Projects" (Project No. TRN6875, CFDA No. 66.039, Federal Award ID No. 01F56701) (to purchase replacement vehicles and equipment to reduce Nitrogen Oxides emissions in the amount of \$109,116.00 for the period August 11, 2022 through February 26, 2023); (2) the receipt and deposit of grant funds in an amount not to exceed \$109,116.00 in the Clean Fleets North Texas 2020 Fund - Award 2; (3) the establishment of appropriations in an amount not to exceed \$109,116.00 in the Clean Fleets North Texas 2020 Fund - Award 2; (4) a required local match in the amount of \$255,640.00 from Equipment Notes Series 2021 Fund; and (5) execution of the grant agreement and all terms, conditions, and documents required by the grant agreement - Total not to exceed \$364,756.00 - Financing: North Central Texas Council of Governments Grant Funds (\$109, 116.00)and Equipment Notes Series 2021 Fund (\$255,640.00)

Attachments: Resolution

ADJOURNMENT

EXECUTIVE SESSION NOTICE

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- 1. seeking the advice of its attorney about pending or contemplated litigation, settlement offers, or any matter in which the duty of the attorney to the City Council under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act. [Tex. Govt. Code §551.071]
- 2. deliberating the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the city in negotiations with a third person. [Tex. Govt. Code §551.072]
- 3. deliberating a negotiated contract for a prospective gift or donation to the city if deliberation in an open meeting would have a detrimental effect on the position of the city in negotiations with a third person. [Tex. Govt. Code §551.073]
- 4. deliberating the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee; or to hear a complaint or charge against an officer or employee unless the officer or employee who is the subject of the deliberation or hearing requests a public hearing. [Tex. Govt. Code §551.074]
- 5. deliberating the deployment, or specific occasions for implementation, of security personnel or devices. [Tex. Govt. Code §551.076]
- discussing or deliberating commercial or financial information that the city has received from a business prospect that the city seeks to have locate, stay or expand in or near the city and with which the city is conducting economic development negotiations; or deliberating the offer of a financial or other incentive to a business prospect. [Tex Govt. Code §551.087]
- deliberating security assessments or deployments relating to information resources technology, network security information, or the deployment or specific occasions for implementations of security personnel, critical infrastructure, or security devices. [Tex Govt. Code §551.089]



Agenda Information Sheet

File #: 22-1612

Item #: A.

Approval of the June 6, 2022 Committee Minutes

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MINUTES OF THE CITY COUNCIL COMMITTEE MONDAY, JUNE 6, 2022

22-0016

ENVIRONMENT AND SUSTAINABILITY COMMITTEE CITY COUNCIL CHAMBER, CITY HALL/VIDEO CONFERENCE COUNCILMEMBER PAULA BLACKMON, PRESIDING

PRESENT: [6] Blackmon, Ridley, *Arnold (**9:11 a.m.), *Resendez (**9:03 a.m.), Schultz, *West

ABSENT: [1] Bazaldua

The meeting was called to order at 9:00 a.m. with a quorum of the committee present.

The meeting agenda, posted in accordance with Chapter 551, "OPEN MEETINGS," of the Texas Government Code, was presented.

After all business properly brought before the committee had been considered, the meeting adjourned at 10:58 a.m.

hair

ATTEST:

City Secretary Staff

Date Approved

The agenda is attached to the minutes of this meeting as EXHIBIT A.

The actions taken on each matter considered by the committee are attached to the minutes of this meeting as EXHIBIT B.

The briefing materials are attached to the minutes of this meeting as EXHIBIT C.

*Note: Members of the Committee participated in this meeting by video conference. ** Note: Indicates arrival time after meeting called to order/reconvened.

MINUTES OF THE CITY COUNCIL COMMITTEE MONDAY, JUNE 6, 2022

EXHIBIT A

RECEIVED

City of Dallas

2022 JUN -2 PM 8: 52

CITY SECRETARY DALLAS, TEXAS 1500 Marilla Street, Council Chambers, 6th Floor Dallas, Texas 75201

Public Notice

220569

POSTED CITY SECRETARY DALLAS, X



Environment and Sustainability Committee

June 6, 2022 9:00 AM

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https://dallascityhall.webex.com/dallascityhall/j.php?MTID=m6ec03934cd939c0e59741a68fa931599

Call to Order

MINUTES

1. 22-1363 Approval of the May 2, 2022 Committee Minutes

Attachments: Minutes

BRIEFING ITEMS

A. 22-1367 Emerald Ash Borer Update
 [Sarah Standifer, Assistant Director, Dallas Water Utilities; Renee Johnson, Assistant Director, Parks and Recreation]

Attachments: Presentation

Β. 22-1366 Local Solid Waste Management Plan Update [Jay Council, Director. Sanitation Services: Cliff Gillespie, Assistant Director for Operations, Sanitation Services: Scott Pasternak, Burns & McDonnell]

Attachments: Presentation

C. 22-1364 2019 Greenhouse Gas Emissions Inventory Director, [Susan Alvarez, Assistant Office of Environmental Quality & Sustainability; Michael Young, Technical Project Manager, National Renewable Energy Laboratory]

Attachments: Presentation

D. 22-1365 Annual Summary Report on Progress towards CECAP Targets [Carlos Evans, Director, Office of Environmental Quality & Sustainability]

Attachments: Presentation

E. 22-1368 Environmental Commission Update [Kathryn Bazan, Chair, Environmental Commission]

UPCOMING AGENDA ITEMS

F. 22-1274 Authorize the (1) acceptance of a grant from the Environmental Protection Agency (EPA) State Environmental Justice Cooperative Agreement (SEJCA) (Grant No. AJ-02F05001, CFDA No. 66.312) grant in the amount of \$200,000.00 to purchase and deploy non-regulatory air monitoring equipment in up to five (5) neighborhoods in the 75211 and 75212 zip codes, for the period October 1, 2021 through September 30, 2023; (2) receipt and deposit of funds in an amount not to exceed \$200,000.00 in the EPA State Environmental Justice Cooperative Agreement Fund; (3) establishment of appropriations in an amount not to exceed \$200,000.00 in the EPA State Environmental Justice Cooperative Agreement Fund (4) execution of the grant agreement with the EPA and all terms, conditions, and documents required by the agreement; and (5) coordination of initiatives, activities and partnerships necessary to fully implement the goals set forth in the SEJCA Grant Work Plan; (6) and execution of a Memorandum of Understanding (MOU) between the City and the sub-recipients of this grant (Texas A&M University - Transportation Institute, Applied Research (TAMU-TTI-CARTEEH), Center for Parkland Health & Hospital Systems (PHHS), Children's Health (Children's), and Positive Breathing - Asthma Chasers (PB-AC) -Not to exceed \$200,000.00 - Financing: EPA SEJCA Grant Funds

Attachments: Resolution

- G. 22-1370 A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by Dallas Independent School District located near the intersection of Hampton Road and Singleton Boulevard and adjacent street rights-of-way; and an ordinance authorizing support of the issuance of a municipal setting designation to Dallas Independent School District by the Texas Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water Financing: No cost consideration to the City
- Η. 22-1371 A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by 1400 Triple B Holdings, LP located near the intersection of Commerce Street and Sylvan adjacent street rights-of-way; and an ordinance Avenue and authorizing support of the issuance of a municipal setting designation to 1400 Triple В Holdings, LP by the Texas Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water -Financing: No cost consideration to the City Recommendation of Staff: Approval
- I. 22-1316 An ordinance correcting (1) a municipal setting designation at property generally located between Lemmon Avenue, Shorecrest Drive, Mockingbird Lane, and Denton Drive, and adjacent street rights-of-way (2) a municipal setting designation at property located near the intersection of Lemmon Avenue and McKinney Avenue and adjacent street rights-of-way; (3) a municipal setting designation at property located near the intersection of Norwood Road and Halifax Street and adjacent street rights-of-way; and (4) a municipal setting designation at property located near the intersection of Singleton Boulevard and Chalk Hill Road and adjacent street rights-of-way Financing: No cost consideration to the City

<u>Attachments:</u> Maps Ordinance Exhibit A J. 22-1372 A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by Preston Forest SC, LLC located near the intersection of Preston Road and Forest Lane and adjacent street rights-of-way; and an ordinance authorizing support of the issuance of a municipal setting designation to Texas Preston Forest SC, LLC by the Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water - Financing: No cost consideration to the City Recommendation of Staff: Approval

ADJOURNMENT

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- 1. seeking the advice of its attorney about pending or contemplated litigation, settlement offers, or any matter in which the duty of the attorney to the City Council under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act. [Tex. Govt. Code §551.071]
- 2. deliberating the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the city in negotiations with a third person. [Tex. Govt. Code §551.072]
- 3. deliberating a negotiated contract for a prospective gift or donation to the city if deliberation in an open meeting would have a detrimental effect on the position of the city in negotiations with a third person. [Tex. Govt. Code §551.073]
- 4. deliberating the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee; or to hear a complaint or charge against an officer or employee unless the officer or employee who is the subject of the deliberation or hearing requests a public hearing. [Tex. Govt. Code §551.074]
- 5. deliberating the deployment, or specific occasions for implementation, of security personnel or devices. [Tex. Govt. Code §551.076]
- discussing or deliberating commercial or financial information that the city has received from a business prospect that the city seeks to have locate, stay or expand in or near the city and with which the city is conducting economic development negotiations; or deliberating the offer of a financial or other incentive to a business prospect. [Tex Govt. Code §551.087]
- deliberating security assessments or deployments relating to information resources technology, network security information, or the deployment or specific occasions for implementations of security personnel, critical infrastructure, or security devices. [Tex Govt. Code §551.089]

MINUTES OF THE CITY COUNCIL COMMITTEE MONDAY, JUNE 6, 2022

EXHIBIT B

JUNE 6, 2022

Item 1: Approval of the May 2, 2022 Committee Minutes

Councilmember Ridley moved to adopt the minutes as presented.

Motion seconded by Councilmember Schultz and unanimously adopted. (Resendez, Arnold absent when vote taken)

JUNE 6, 2022

BRIEFING ITEMS

Item A: Emerald Ash Borer Update

The following individuals briefed the committee on the item:

- Sarah Standifer, Assistant Director, Dallas Water Utilities;
- Renee Johnson, Assistant Director, Park and Recreation;
- Philip Erwin, Manager, Development Services;
- Brett Johnson, Urban Biologist, Park and Recreation; and
- Norm Daley, Chief Operations & Chief Communication Officer, Texas Trees Foundation

JUNE 6, 2022

BRIEFINGS ITEMS

Item B: Local Solid Waste Management Plan Update

The following individuals briefed the committee on the item:

- Jay Council, Director, Sanitation Services;
- Cliff Gillespie, Assistant Director of Operations, Sanitation Services; and
- Eric Weiss, Economic Analyst, Burns & McDonnell

JUNE 6, 2022

BRIEFINGS ITEMS

Item C: 2019 Greenhouse Gas Emissions Inventory

The following individual briefed the committee on the item:

• Susan Alvarez, Assistant Director, Office of Environmental Quality & Sustainability

JUNE 6, 2022

BRIEFING ITEMS

Item D: Annual Summary Report on Progress towards CECAP Targets

The following individuals briefed the committee on the item:

- Carlos Evans, Director, Office of Environmental Quality & Sustainability; and
- Susan Alvarez, Assistant Director, Office of Environmental Quality & Sustainability

JUNE 6, 2022

BRIEFING ITEMS

Item E: Environmental Commission Update

The committee discussed the item.

JUNE 6, 2022

UPCOMING AGENDA ITEMS

- Item F: Authorize the (1) acceptance of a grant from the Environmental Protection Agency (EPA) State Environmental Justice Cooperative Agreement (SEJCA) (Grant No. AJ-02F05001, CFDA No. 66.312) grant in the amount of \$200,000.00 to purchase and deploy non-regulatory air monitoring equipment in up to five (5) neighborhoods in the 75211 and 75212 zip codes, for the period October 1, 2021 through September 30, 2023; (2) receipt and deposit of funds in an amount not to exceed \$200,000.00 in the EPA State Environmental Justice Cooperative Agreement Fund; (3) establishment of appropriations in an amount not to exceed \$200,000.00 in the EPA State Environmental Justice Cooperative Agreement Fund (4) execution of the grant agreement with the EPA and all terms, conditions, and documents required by the agreement; and (5) coordination of initiatives, activities and partnerships necessary to fully implement the goals set forth in the SEJCA Grant Work Plan; (6) and execution of a Memorandum of Understanding (MOU) between the City and the sub-recipients of this grant (Texas A&M University -Transportation Institute, Center for Applied Research (TAMU-TTI-CARTEEH), Parkland Health & Hospital Systems (PHHS), Children's Health (Children's), and Positive Breathing - Asthma Chasers (PB-AC) - Not to exceed \$200,000.00 -Financing: EPA SEJCA Grant Funds
- Item G: A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by Dallas Independent School District located near the intersection of Hampton Road and Singleton Boulevard and adjacent street rights-of-way; and an ordinance authorizing support of the issuance of a municipal setting designation to Dallas Independent School District by the Texas Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water - Financing: No cost consideration to the City
- Item H: A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by 1400 Triple B Holdings, LP located near the intersection of Commerce Street and Sylvan Avenue and adjacent street rights-of-way; and an ordinance authorizing support of the issuance of a municipal setting designation to 1400 Triple B Holdings, LP by the Texas Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water -Financing: No cost consideration to the City Recommendation of Staff: Approval

OFFICIAL ACTION OF THE CITY COUNCIL COMMITTEE UPCOMING AGENDA ITEMS Page 2

- Item I: An ordinance correcting (1) a municipal setting designation at property generally located between Lemmon Avenue, Shorecrest Drive, Mockingbird Lane, and Denton Drive, and adjacent street rights-of-way (2) a municipal setting designation at property located near the intersection of Lemmon Avenue and McKinney Avenue and adjacent street rights-of-way; (3) a municipal setting designation at property located near the intersection of Norwood Road and Halifax Street and adjacent street rights-of-way; and (4) a municipal setting designation at property located near the intersection of Singleton Boulevard and Chalk Hill Road and adjacent street rights-of-way - Financing: No cost consideration to the City
- Item J: A public hearing to receive comments on a proposed municipal setting designation to prohibit the use of groundwater as potable water beneath property owned by Preston Forest SC, LLC located near the intersection of Preston Road and Forest Lane and adjacent street rights-of-way; and an ordinance authorizing support of the issuance of a municipal setting designation to Preston Forest SC, LLC by the Texas Commission on Environmental Quality and prohibiting the use of groundwater beneath the designated property as potable water - Financing: No cost consideration to the City Recommendation of Staff: Approval

The committee discussed the items.

MINUTES OF THE CITY COUNCIL COMMITTEE MONDAY, JUNE 6, 2022

EXHIBIT C



Emerald Ash Borer (EAB) Environmental and Sustainability

June 6, 2022

Urban Forest Task Force

Sarah Standifer Assistant Director Dallas Water Utilities

Renee Johnson Assistant Director Park and Recreation

Presentation Overview



- Status Update
- Emerald Ash Borer Identification
- Ash Tree Identification
- Action Plan
- Next Steps

Status Update



- Texas A&M Forest Service (TFS) notified the City of confirmed presence of Emerald Ash Borer (EAB) within Dallas city limits and western Dallas County
- City Council notified May 19th of confirmation
- TFS, Texas Department of Agriculture (TDA) and the City initiated respective EAB Action Plans



Emerald Ash Borer (EAB)



The emerald ash borer (Agrilus planipennis) is a destructive, non-native, wood-boring, pest of ash trees (Fraxinus spp.). Native to Asia, the emerald ash borer beetle (EAB) was unknown in North America until its discovery in southeast Michigan in 2002. All native ash species are susceptible to attack. Ash trees with low population densities of EAB often have few or no external symptoms of infestation. EAB is a significant threat to urban, suburban, and rural forests as it kills both stressed and healthy ash trees. EAB is very aggressive and ash trees may die within two or three years after they become infested.





Ash Tree Identification

- Ash trees represent approximately 5% of the DFW Metroplex, according to TFS
- As a preservation strategy, treatment of ash trees will be considered when:
 - 24" or larger in diameter and in good condition or a grove of good condition ash
 - Removals will occur when infestation is present or condition of the tree poses a public safety risk



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I think I have an Ash Tree, now what?



• Contact an ISA Certified Arborist for an inspection of a tree

Contact information to locate these services can be found at the International Society of Arboriculture's Trees Are Good website, <u>www.treesaregood.org</u>,and can be searched by state, city or postal code

- Based on recommendations, options available may include:
 - 1. Treat the tree. A prescribed injection of Emamectin Benzoate (EB) can be applied by a licensed TDA Commercial Applicator, or other recommended product. These products work to neutralize feeding larvae and/or adult beetles and provides protection that may require additional treatment after 2 years.
 - 2. Remove and replace the tree. If the tree is in advanced stages of decline, treatment may not be a practical solution. In this option, the host source is removed, and the spread of EAB slows in the local area.
- Trees provide an abundance of benefits to the local ecosystem and community. If a tree is removed, replacement is strongly recommended. An ISA Certified Arborist can recommend a well-suited native replacement or residents can research replacements at:

http://texastreeid.tamu.edu/content/listOfTrees/



35-7

EAB Action Plan

- To date, TFS and TDA have:
 - ✓Implemented quarantine for Dallas County:
 - No untreated wood, wood debris or firewood can be moved outside the quarantined area(s) without treatment
 - ✓ Provided ongoing EAB trap monitoring for over 20 locations in Dallas County
 - ✓ Continued to provide technical assistance and participate in agency technical meetings

NEWSROOM: TREE-KILLING INSECT CONFIRMED IN DALLAS COUNTY

May 19, 2022

Tree-killing insect confirmed in Dallas County

COLLEGE STATION, Texas — The presence of the invasive emerald ash borer (EAB) was confirmed this week in Dallas County. Dallas County will be added to the list of Texas jurisdictions under quarantine by the Texas Department of Agriculture (TDA). TDA quarantines are designed to slow the spread of the insect by limiting the transportation of ash wood, wood waste and hardwood firewood.

On May 12, Texas A&M Forest Service collected an adult beetle specimen in the Carrollton/Coppell area and tentatively identified it as being EAB. The beetle was collected in an EAB trap that is part of a state monitoring program run by Texas A&M Forest Service each year.

"EAB is a destructive, non-native wood-boring pest of ash trees," said Allen Smith, Texas A&M Forest Service Regional Forest Health Coordinator. "Since 2018, we have deployed nearly 500 traps across Central, East and North Texas annually watching for the insect's presence and movement."

The specimen was sent to the USDA Department Animal and Plant Health Inspection Service (APHIS) national lab for confirmation and tested positive as EAB.

The aggressive pest is a significant threat to urban, suburban and rural forests," said Smith. "Both healthy and unhealthy ash trees are susceptible to EAB attack and may die within two or three years after becoming infested. Ash trees have no natural resistance to the exotic insect. Without proper proactive measures, mortality can be 100 percent in heavily infested areas, so early detection could improve our chances to manage for the pest."

Native to Asia, forest health experts have been monitoring EAB movement across the United States since 2002. It has spread to more than half of the states in America, killing millions of ash trees. The beetle was first detected in Texas in 2016 in Harrison County in northeast Texas. Since then, EAB has been positively confirmed in Bowie, Cass, Dallas, Denton, Marion, Parker and Tarrant Counties.

After the initial specimen was collected, additional adult beetles were also trapped in central and southern areas of Dallas County.

Once the presence of EAB is confirmed in a county, TDA assumes regulatory responsibility which includes the establishment of quarantines. The state's mandatory quarantine by TDA, restricts movement of any woody ash material exiting the county or quarantined area.

"Because EAB is transported unintentionally on firewood and wood products, the quarantine helps slow the beetle's spread by restricting the movement of wood in and out of affected areas," said Smith.

Texas A&M Forest Service urban tree canopy inventories estimate that ash trees comprise approximately five percent of the Dallas/Fort Worth urban forest and approximately one percent of the standing inventory forests in East Texas. "There is no known stop to this epidemio," said Smith "But we can help communities minimize loss, diversify their tree species and contribute to the health and resiliency of their urban forests."

Texas A&M Forest Service works with communities on state quarantines of the movement of wood into and out of impacted areas. There are resources available to help affected communities identify signs of EAB infestation and can assist in making decisions about preventative measures they can take and how to handle tree management and removal.

For more information on EAB in Texas, please visit http://texasforestservice.tamu.edu/eab

EAB photos and resources can be viewed and accessed at http://ow.ly/LIJi30lbBxz

For information from TDA on EAB quarantine,

visit https://texreq.sos.state.tx.us/public/readtacSext.ViewTAC?tac_view=5&ti=4&pt=1&ch=19&sch=Z&rl=Y or https://texasagriculture.gov/RegulatoryPrograms/PlantQuality/PestandDiseaseAlerts/EmeraldAshBorer.aspx

To report emerald ash borer, please call 1-866-322-4512.

####

Texas A&M Forest Service Contacts: Mike Sills, Urban Forester, 972-695-3055, msills@tfs.tamu.edu Allen Smith, Regional Forest Health Coordinator, 903-297-5094, lasmith@tfs.tamu.edu Communications Office, 979-458-6606, newsmedia@tfs.tamu.edu



To date, the City has initiated the EAB Action Plan to manage, respond to, and provide coordination of EAB efforts within the city limits:

- ✓ Determine infestation boundaries with TFS
- ✓ Initiate marketing, education and outreach activities in cooperation with TFS and TDA
- ✓ Update EAB Action Plan to include quarantine requirements

WHAT IS THE Emerald Ash Borer (EAB)?



The emerald ash borer (Agrilus planipennis) is a destructive non-native wood-boring pest of ash trees. Native to Asia, the emerald ash borer beetle (EAB) was unknown in North America until its discovery in southeast Michigan in 2002. All native ash species are susceptible to attack.

Ash trees with low population densities of EAB often have few or no external symptoms of infestation. EAB is a significant threat to urban, suburban, and rural forests as it kills both stressed and healthy trees.

WHAT DO I DO IF I SEE AN EAB?

- 1. Do you know what kind of tree you have? Visit the Trees of Texas website to help you identify your tree: texastreeid.tamu.edu/index.aspx
- 2. Have there been reports of the beetle nearby? The biggest signs of a beetle nearby are:
 - Dead branches near the top of a tree
 - Leafy shoots sprouting from the trunk
 - Bark splitting exposing larval galleries
- 3. Call a professional certified forester to verify the presence of an EAB, then discuss ALL of your options!

Finally, if removal is needed, plant a new Tree! Check out the Dallas Forestry website for alternate trees and more tree information.

PHONE: 214-670-3111 EMAIL: CODForestry@dallascityhall.com WEBSITE: dallascityhall.com/projects/forestry/Pages/home.aspx

Forestry



- Action and response activities
 - ✓ Focused marketing, outreach and education efforts, in cooperation with TFS, TDA and partners/stakeholders
 - Forestry website
 - Media releases, social media, and public outreach to community groups, neighborhood associations and park partners
 - Ongoing staff and public presentations
 - Staff training
 - Arborist School
 - Community Forester Academy





- ✓ Begin the assessment of ash trees throughout the City:
 - Condition and specific location of significant ash trees and ash groves
 - 24" and larger, in good condition
 - Grove of good condition, diverse ash
 - Removal of infected ash or pose a public safety issue
- Contract for treatment and removals
 - Initial FY22 and FY23 cost estimate \$470,000
 - Does not include any associated landfill charges
 - Concurrent with assessment
 - Present agenda item to establish multi-year fund for FY22 and FY23 in June, potentially August







✓Initiate amendments to City Code, Article X

- Summer 2022: ZOAC and CPC
- Late Summer 2022 to Early Fall 2022: City Council consideration
- Necessary to address protected status and removals, as needed for infestation
- Plan and implement containment actions:
 - Consider debris treatment and off-site mulching for public and private entities
 - Determine location and any appropriate zoning or certificate of occupancy needs





Next Steps

- Continue working with TFS and TDA to monitor EAB populations
- Increase marketing, awareness and education for staff and public
- Initiate treatment of significant ash trees
- Perform limited removal of ash
 - Infected ash or poses a public safety issue



Next Steps

- Present amendments to Article X for consideration
- Present funding agenda item for consideration
- Finalize plans for containment site for City and public disposal
- Continue tree plantings to increase diversity and replace lost tree canopy





Appendix – Marketing and Outreach Material





The emerald ash borer (Agrilus planipennis) is a destructive non-native wood-boring pest of ash trees. Native to Asia, the emerald ash borer beetle (EAB) was unknown in North America until its discovery in southeast Michigan in 2002. All native ash species are susceptible to attack.

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Finally, if removal is needed, plant a new Tree! Check out the Dallas Forestry website for alternate trees and more tree information.

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Forestry

¿QUÉ ES EL BARRENADOR Esmeralda del Fresno (Bef)?



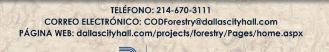
El barrenador esmeralda del fresno (Agrilus planipennis) es una plaga destructiva no autóctona que perfora la madera de los fresnos. Originario de Asia, el barrenador esmeralda del fresno (BEF) era desconocido en Norteamérica hasta su descubrimiento en el sureste de Michigan en 2002. Todas las especies nativas de fresnos son susceptibles de ser atacadas.

Los fresnos con bajas densidades de población del BEF suelen presentar pocos o ningún síntoma externo de infestación. El BEF es una amenaza importante para los bosques urbanos, suburbanos y rurales, ya que mata tanto a los árboles estresados como a los sanos.

¿QUÉ HAGO SI VEO UN BEF?

- ¿Sabe qué tipo de árbol tiene? Visite el sitio web Trees of Texas para ayudarle a identificar su árbol: texastreeid.tamu.edu/index.aspx
- ¿Ha habido informes sobre el escarabajo en las cercanías? Los mayores signos de un escarabajo cerca son:
 - Ramas muertas cerca de la copa de un árbol
 - Brotes de hojas que brotan del tronco
 - Corteza partida que expone galerías de larvas
- ¡Llame a un silvicultor profesional certificado para que verifique la presencia de un BEF y, a continuación, analice TODAS sus opciones!

Finalmente, si es necesaria la eliminación, ¡plante un nuevo árbol! Consulte el sitio web de Dallas Forestry para obtener árboles alternativos y más información sobre árboles.



Forestry



City of Dall

Appendix – Marketing and **Outreach Material**

EMAIL:



PÁGINA WEB:

dallascityhall.com/projects/forestry/Pages/home.aspx



City of Dalla

Appendix – Marketing and Outreach Material

CITY OF DALLAS FORESTRY SAYS DALLAS ROOTS RUN DEEP!

FACT:

The City of Dallas has a vast urban forest, including the approximately 6,000-acre Great Trinity Forest.

City of Dallas Forestry has launched a new website that houses information on Dallas' urban forests, and the Emerald Ash Borer (EAB).

WHAT WE DO:

City staff work to maintain existing trees, plants new trees and provide trees to residents to plant in their yards or along their street.

OUR GOAL:

To improve the health and well-being of all Dallas residents.

JOIN US ON THIS JOURNEY OF ENRICHING OUR URBAN FOREST!

TO LEARN MORE ABOUT CITY OF DALLAS FORESTRY VISIT: dallascityhall.com/projects/forestry/Pages/home.aspx

HECHO:

SILVICULTURA DE LA CIUDAD DE DALLAS DICE

ILAS RAÍCES DE DALLAS SON PROFUNDAS

La Ciudad de Dallas tiene un vasto bosque urbano, que incluye el Great Trinity Forest, de aproximadamente 6,000 acres.

Silvicultura de la Ciudad de Dallas ha lanzado un nuevo sitio web que contiene información sobre los bosques urbanos de Dallas y el barrenador esmeralda del fresno (BEF).

LO QUE HACEMOS:

El personal de la Alcaldía trabaja en el mantenimiento de los árboles existentes, en la plantación de nuevos árboles y en proporcionar árboles a los residentes para que los planten en sus patios o a lo largo de sus calles.

NUESTRO OBJETIVO:

Mejorar la salud y el bienestar de todos los residentes de Dallas.

¡ÚNASE A NOSOTROS EN ESTE VIAJE PARA ENRIQUECER NUESTRO BOSQUE URBANO!

PARA SABER MÁS SOBRE LA SILVICULTURA DE LA CIUDAD DE DALLAS, VISITE: dallascityhall.com/projects/forestry/Pages/home.aspx



Appendix – Marketing and Outreach Material



SERVICIOS DE LA CIUDAD DE PLANIFICACIÓN DE ÁRBOLES QUE OFRECEMOS:

- Programa de Reforestación de Dallas
- Branching Out Dallas
 - Parques y Recreación elige un mínimo de doce parques al año para plantar nuevos árboles.
- Branch Out Dallas
 - Anualmente proporciona un árbol gratuito a los propietarios de viviendas de Dallas para que lo planten en el patio delantero, trasero o latera

TELÉFONO: 214-670-3111 CORREO ELECTRÓNICO: CODForestry@c PÁGINA WEB: dallascityhall.com/projects/fore

DALLAS ROOTS RUN DEEP ALL THROUGH THE CITY!

TREE PLANTING PROGRAMS OFFERED IN THE CITY:

- Dallas Reforestation Program
- Branching Out Dallas
 - Park and Recreation chooses a minimum of twelve parks per year to plant new trees.
- Branch Out Dallas
 - Annually provides a free tree to Dallas homeowners to be planted in the front, back or side yards.

PHONE: 214-670-3111 EMAIL: CODForestry@dallascityhall.com WEBSITE: dallascityhall.com/projects/forestry/Pages/home.aspx



Appendix – Related Links

• City Forestry:

dallascityhall.com/projects/forestry/Pages/home.aspx

- Texas A&M Forest Service:
 <u>tfsweb.tamu.edu/EAB/</u>
- Texas Department of Agriculture: <u>www.texasagriculture.gov/RegulatoryPrograms/PlantQuali</u> <u>ty/PestandDiseaseAlerts/EmeraldAshBorer.aspx</u>
- Find an arborist: <u>www.treesaregood.org</u>



Questions?

Urban Forest Task Force-Technical Team <u>CODForestry@dallascityhall.com</u>

Urban Forest Task Force Technical Te







Dallas Local Solid Waste Management Plan Update

Environment and Sustainability Committee June 6, 2022

> Jay Council Director of Sanitation Services

Cliff Gillespie Assistant Director of Sanitation Services 48

Agenda



Introduction

Background about LSWMP Update

Updates Since Last Briefing

Strategic approach for developing the LSWMP Update

The Plan

Goals, objectives, and options going forward

Next Steps

Schedule for full City Council consideration and adoption



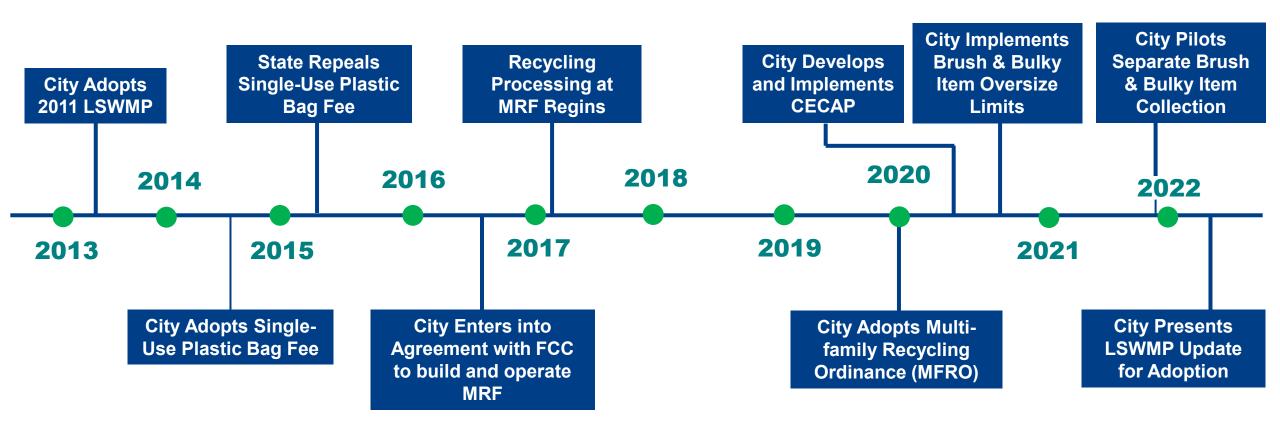
Background

WHY DO WE NEED A LOCAL SOLID WASTE PLAN UPDATE?

- Evaluate current and future material management needs
- Update goals in alignment with CECAP
- Identify programs, policy and infrastructure required to advance goals
- Develop implementation and funding plan to sustainably fund programs and implement supporting policy

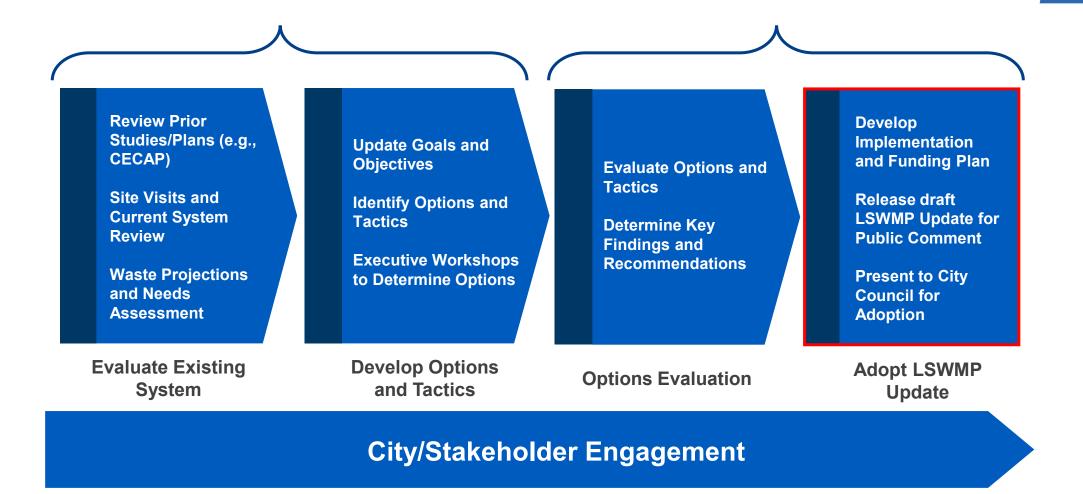
Background





Update Process







Public & Stakeholder Engagement

Surveys. 5,500+ survey responses from single-family residents, multi-family tenants and property managers and commercial entities between two survey efforts.

Stakeholder Interviews. Interviewed 10+ internal and external stakeholder groups such as Dallas Regional Chamber Texas Restaurant Association (Greater Dallas Chapter), Texas Campaign for the Environment, multiple neighborhood groups and homeowner associations and various City departments such as Dallas Water Utility (DWU), Code Compliance, Economic Development and others.

FAQ & Educational Video. Developed FAQ and an educational 'whiteboard' video to communicate the progress of the LSWMP Update.

Presentation to City Leadership. Presented updates to the City Council Environment and Sustainability Commission and City Council Environment and Sustainability Subcommittee.

Public Comment Period. Published the draft LSWMP Update for a 30-day period.



5500+ SURVEY RESPONSES





Since Our Last Update

- Public Meeting held on March 31
- Draft LSWMP Update published for public comment period
- Finalized LSWMP Update submitted for adoption



Updated Objectives

- 1. Empower residents and businesses to reduce the amount of discarded material generated through proactive education and outreach.
- 2. Establish and implement innovative operational best practices to provide efficient, cost effective, and environmentally responsible service.
- 3. Provide excellent customer service and support residents and businesses to maximize diversion from landfill.
- 4. Operate a clean, green and efficient waste system that seeks to generate energy from organics.



- Recall core ideas from the 2011 LSWMP objectives
- Maintain progress toward the City's long-term Zero Waste goal
- Re-package to emphasize
 near-term goals
- More closely align with goals adopted by CECAP
- Incorporate data collected during stakeholder engagement



Updating Near- and Long-term Goals





SINGLE-FAMILY



MULTI-FAMILY

▦

COMMERCIAL

GOAL TYPE & METRICS

Recycling rate, capture rate, disposal per capita.

NEAR-TERM GOALS

35% recycling of organic waste by 2030.60% paper waste by 2030.35% reduction in waste landfilled by 2030.

LONG-TERM GOALS

80% recycling of organic waste by 2050.90% paper waste by 2050.

45% reduction in waste landfilled by 2040.

GOAL TYPE & METRICS

Program participation; reporting compliance

NEAR-TERM GOALS

90% reporting compliance and verification of entities covered under the MFRO for three consecutive years.

GOAL TYPE & METRICS

Program participation; reporting compliance

NEAR-TERM GOALS

Expand Green Business Certification year-over-year.90% reporting compliance and verification from non-exclusive franchise haulers for 3 consecutive years.

LONG-TERM GOALS

Analyze data to establish goals consistent with future program in place.

LONG-TERM GOALS

Analyze data to establish goals consistent with future program in place.

Single-Family Services Overview





- Roll cart garbage and recycling collected once per week.
- Automated and semiautomated trucks used to collect roll cart.
- Opportunity to re-route collection fleet to reduce alley collection.





- Commingled brush & bulky items collected once per month via grapple trucks.
- 3-month pilot separate brush and bulky item collection completed in December 2021.
- Opportunity to collect and process yard trimmings and brush separately.



- Household Chemical Collection (HCC) open twice per week operated by Dallas County.
- Battery, Oil, Paint and Antifreeze (BOPA) collection events held by City.
- Inconvenient location and challenges communicating program offering to residents.

Single-Family Sector Next Steps



The City has direct control over material and can increase recycling via existing services





3

Increase capture rate from blue roll-cart program

Focus current and future resources to increased education, outreach and compliance efforts.

Track roll-cart capture rate performance on a year-over-year basis.

Separate collection and processing of yard trimmings and brush

Focus current and future resources (e.g., vehicles, staff) to separately collect yard trimmings and brush from bulky items.

Upgrade transfer station system to manage yard trimmings and brush separately.

Develop composting facility through public private partnership.

Establish more convenient HHW and electronics collection

Renew interlocal agreement with Dallas County on short-term basis.

Work with County to develop permanent or satellite facility in southern areas of City.

Evaluate feasibility to expand capabilities of BOPA collection program.

Multi-Family Sector Overview

MFRO adopted in 2019

- Reporting and recycling requirements from haulers and apartment complex managers rather than tenants
- Covers multi-family complexes with eight or more units

Initial reporting provided to the City in 2020

- 20 permitted multi-tenant recycling haulers, 60 percent of them combine multi-family and commercial recycling on collection routes
- Haulers reported a total of 10,600 recycling tons collected
- Estimated 7,000 tons from multi-tenant properties only
- Multi-family recycling is hauled to one of 16 facilities spread throughout the City and surrounding areas





Multi-Family Sector Next Steps



The MFRO is an *innovative* policy tool and an excellent platform to build on going forward



Increase MFRO compliance from covered entities yearover-year

Continue to implement and increase the compliance from generators and haulers as part of the MFRO.

Monitor new developments that come online and continuing to support affected entities with education and outreach.

Adjust reporting requirements to include more comprehensive tonnage reports

Require the submission of more comprehensive data to include refuse, recycling and other divertible tonnages currently collected and the location they are processed and disposed.



Sustain education, outreach and compliance efforts

Continue implementation efforts and support haulers and apartment managers to increase compliance year-over-year to meet multi-family sector goals.

Commercial Sector Overview

The commercial sector consists of a variety of properties, facilities and business operations.

- Represents 70 percent of material disposed at Landfill and significant diversion potential
- Unable to gauge how much recycling activity is taking place

Garbage and recycling collected by non-exclusive franchise haulers (currently 109 active haulers)

- Haulers submit a Solid Waste Operator Franchisee Monthly Report on a monthly basis
- Data required does not provide a complete picture of material flows

City recently established Green Business Certification program

 Assists and recognizes entities that incorporate recycling or promote reuse, reduction, and composting in their business operations





Commercial Sector Next Steps



Commercial sector presents the **biggest** opportunity to reach Zero Waste Goals





Expand Green Business Certification Program

Increase the number of certified businesses.

Leverage cross-departmental efforts to provide technical assistance.

Adjust Solid Waste Operator reporting requirements

Require submission of more comprehensive and verifiable data.

Include refuse, recycling and other recyclable tonnages currently collected and the location with they are processed and disposed.



Adjust non-exclusive franchise ordinance to require haulers offer key services

In the future, require haulers offer recycling services to customers.

Establish compliance mechanisms to ensure that this maintains a level playing field among franchise haulers.



Infrastructure Overview





- Material consolidated for more efficient transportation
- Critical part of current and future materials management.
- Aging and unable to manage brush separately for recycling.

Landfill



- McCommas Bluff Landfill serves the City's longterm disposal needs.
- Conserve valuable airspace by continuing efforts to prolong site life.
- Landfill must meet longterm disposal needs of City and region.



- Developed by publicprivate partnership
- Began operation in 2017
- Facility has sufficient capacity for current and future recycling processing needs

Fueling



- Fueling stations fill the City's fleet.
- Limited fueling infrastructure for Compressed Natural Gas (CNG) or electric collection vehicles.

Infrastructure Options



Infrastructure improvements are <u>critical</u> to achieving near-term and long-term goals.





Upgrade transfer station system

Upgrade transfer stations to separately manage organics.

Minimize number of residents or self-haul customers in transfer buildings.

Synchronize scale systems to streamline data analysis.

Develop composting facility as part of publicprivate partnership

The City does not have adequate composting infrastructure to process separately collected yard trimmings and brush.

Develop a composting facility through public-private partnership, similar to the process for installing the recycling facility.



Increase CNG/RNG and electric vehicle fueling capacity

Explore purchase of additional CNG vehicles.

Install additional natural gas fueling stations.

Explore electric solid waste collection vehicle pilot project.

The road ahead...



Continued development of Zero Waste infrastructure and programs

- Upgrade transfer station system and conduct landfill master-planning effort
- Procure public-private partnership for organics processing facility
- Renew interlocal agreement with Dallas County HCCC
- Increase covered entities achieving compliance with MFRO

Near-term focus on single-family sector to achieve 2030 CECAP goals

- Increase education, outreach and compliance efforts for roll-cart program to increase capture rate
- Implement separate brush and bulky item collection to divert organics
- Implement mandatory programs in the long term to continue progress toward Zero Waste

Long-term focus on commercial sector to achieve Zero Waste goal

- Adjust existing reporting requirements on non-exclusive franchise holders
- Establish commercial hauler recycling requirements
- Position the City for development of an exclusive or zoned franchise system





- Staff request ENVS Committee vote to advance LSWMP Update for full City Council consideration
- Final public comment opportunity prior to full City Council consideration
- Finalize document for adoption
- Full City Council consideration tentatively scheduled for June 22, 2022





2019 Greenhouse Gas Emissions Inventory

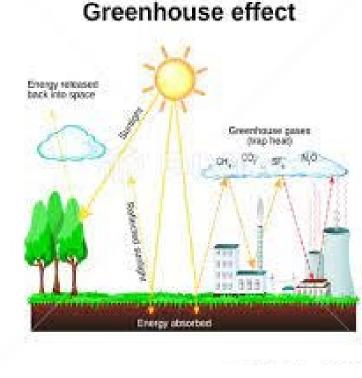
Environment & Sustainability Committee June 6, 2022

Susan Alvarez, PE, CFM Assistant Director Office of Environmental Quality & Sustainability

> Michael Young Technical Project Manager National Renewable Energy Lab₆₇

GHG Emission Inventory Purpose

- Update the inventory completed in 2018, based on 2015 data
- 2019 data was selected as the most representative yearly data
- First regular update to support the CECAP
 - CECAP based on the 2015 data
 - Updating to 2019 data allows us to assess CECAP progress and to focus ongoing CECAP efforts
 - Updating helps assess progress towards the commitment to the goals of the Paris Climate Agreement

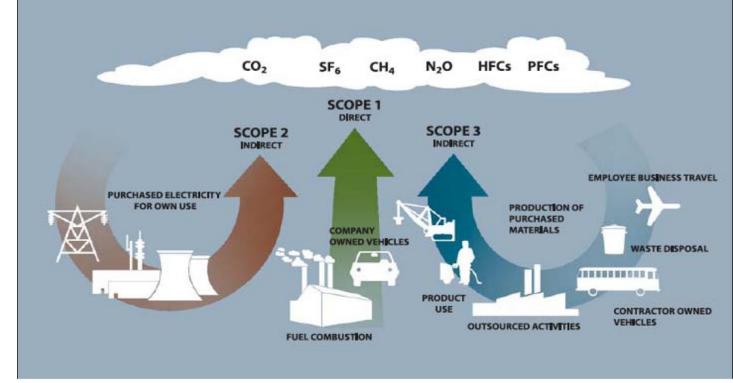




Introduction and Overview of Terms

- Greenhouse Gas (GHG) emissions are expressed in units of *Metric Tons of Carbon Dioxide Equivalent (MT CO₂e)*. Includes:
 - Carbon Dioxide (CO₂)
 - Methane (CH₄)
 - Nitrous Oxide (N₂O)
 - Fluorinated Gases (HFCs, PFCs, SF₆)

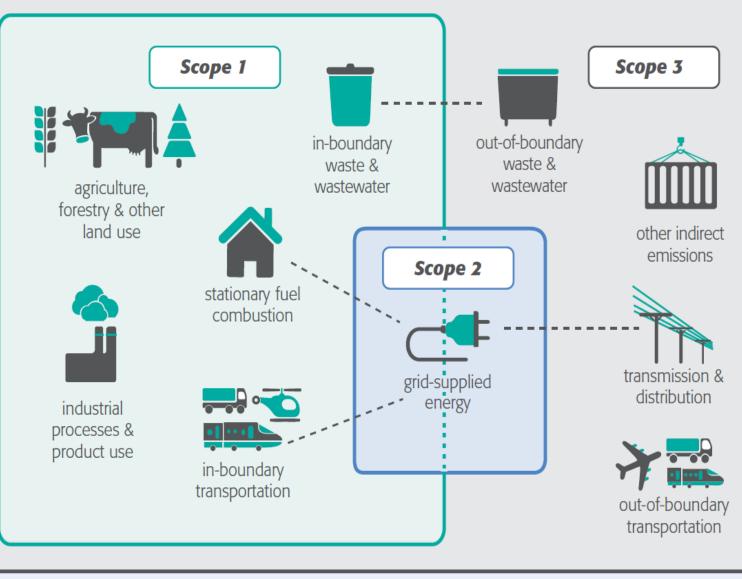






Terminology

Scope	Definition
Scope 1	GHG emissions from sources located within the city boundary
Scope 2	GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary
Scope 3	All other GHG emissions that occur outside the city boundary as a result of activities taking place within the city boundary



Methodology

- Emissions estimated using the Local Governments for Sustainability (ICLEI) and the Global Protocol for Community Scale Greenhouse Gas Emission (GPC) methods.
- ICLEI Clearpath accounting tool used to allow benchmarking with other cities
- Two GHG Emissions Inventories conducted as a part of this process:
 - Community-Scale
 - Emissions occurring as a result of activities and sources within the City of Dallas boundaries (also includes municipal emissions by the City of Dallas)
 - Government-Scale (Municipal emissions)
 - Emissions from sources owned/operated by the Dallas City Government





Dallas City Government Inventory



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Summary of Government Emissions



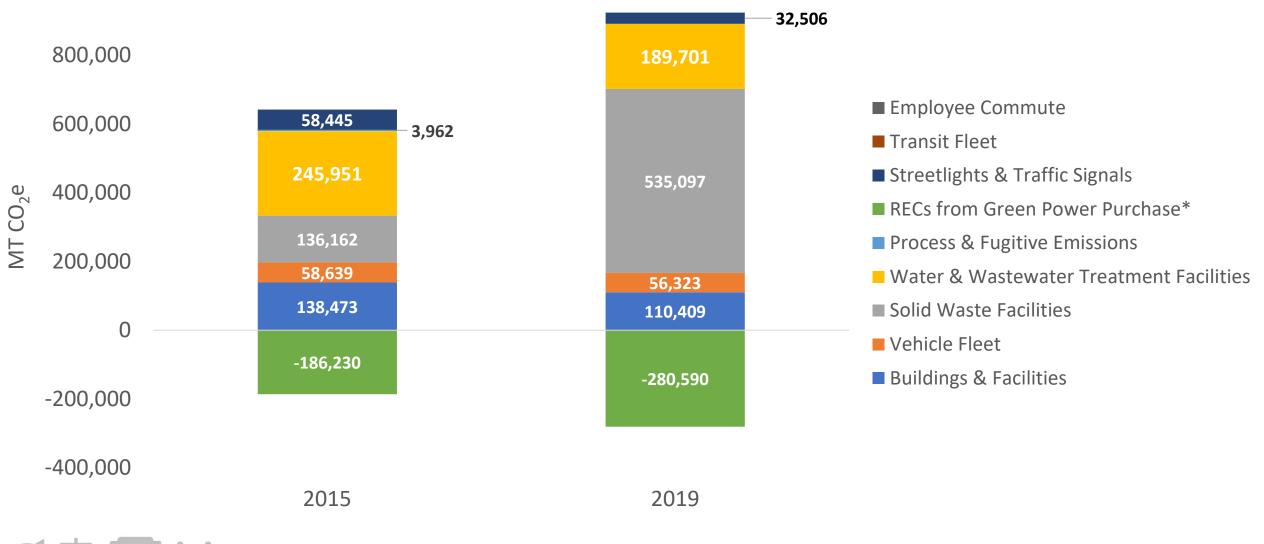
Scope	Sources/Sector	MT CO2e		% Change	
Зсоре		2015	2019	% Change	
Scope 1 - GHG Emissions from within City Facility Boundaries	Buildings & facilities, solid waste, fleet, water & wastewater, other process & fugitive emissions	212,959	599,090	181%	
Scope 2 - GHG from Grid-suppled energy used for City facilities	Energy use for buildings & facilities, solid waste, fleet, water & wastewater, other process & fugitive emissions	428,673	324,946	-24%	
	- Renewable Energy Credits	-186,230	-280,590	51%	
	Net Emissions, Scope 2:	242,443	44,356	-82%	
Scope 3 - other City-related emissions that occur outside of City Boundary	Employee commute & fugitive emissions	0	40,046		
Total (Gross)		641,632	964,082	50%	
Tota	455,402	683,492	50%		
DRAFT - PRELIMINARY DATA					

City of Dallas Government-Scale GHG Emissions Inventory

Comparison by Sector (Scope 1 & 2 Only)



1,000,000

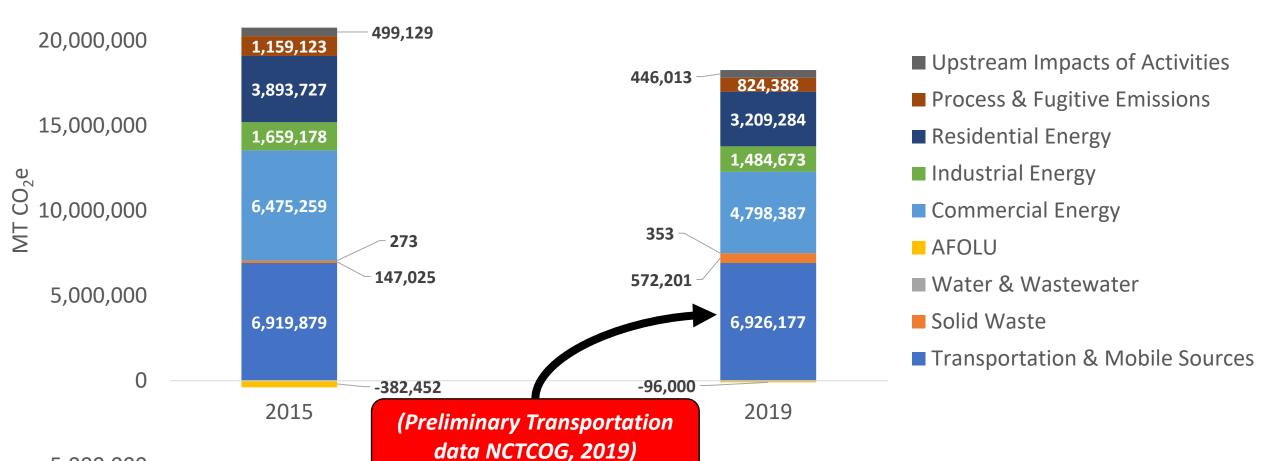




Dallas Community-Scale Inventory



City of Dallas Community-Scale Summary of GHG Emissions by Scope and Sector MT CO₂e **Sector** % Change Scope **DRAFT - PRELIMINARY DATA** 2015 2019 +4% **Residential Energy** 742,489 769.878 **Commercial Energy** 1,261,803 762,630 -40% Industrial Energy 345,001 467.343 +35% **Transportation & Mobile Sources** 6,779,889 3,230,549 -52% 140,488 Solid Waste 538,129 +283% Scope 1 (In-Boundary) Water & Wastewater 273 353 +29% 1,159,123 **Process & Fugitive Emissions** 824,388 -29% Subtotal: Scope 1 (Gross) 10,429,066 6,593,270 -38% AFOLU (Agriculture, Forestry, and Other Land Use Credits) -382,452 -96,000 -75% Subtotal: Scope 1 (Net) 10,046,614 6,497,270 -37% **Residential Energy** 3,151,238 2,439,406 -23% **Commercial Energy** 5,213,456 4,035,757 -23% Scope 2 Industrial Energy 1.314.177 1,017,330 -23% (Grid) 30,505 -56% **Transportation & Mobile Sources** 69,738 Subtotal: Scope 2 9,748,609 7,522,998 -23% Solid Waste 34,072 +421% 6,537 Scope 3 **Transportation & Mobile Sources** 70,252 3,665,123 +5,117% (Outside Upstream Impacts of Activities 499,129 446,013 -11% **Boundaries**) Subtotal: Scope 3 575,918 4,145,208 +620% 1D**13% Total (Gross)** 20,753,593 18,261,476 76 Total (Net) 20,371,141 18,165,476 -12%



City of Dallas Community-Scale GHG Emissions Inventory Comparison by Sector (Scope 1 & 2 Only)



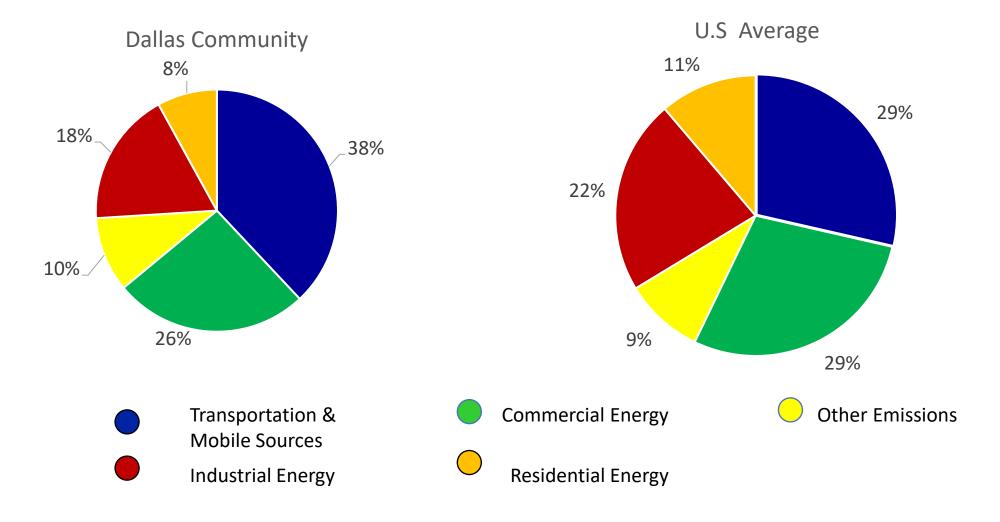
-5,000,000

25,000,000

DRAFT - PRELIMINARY DATA

Dallas Community Emissions



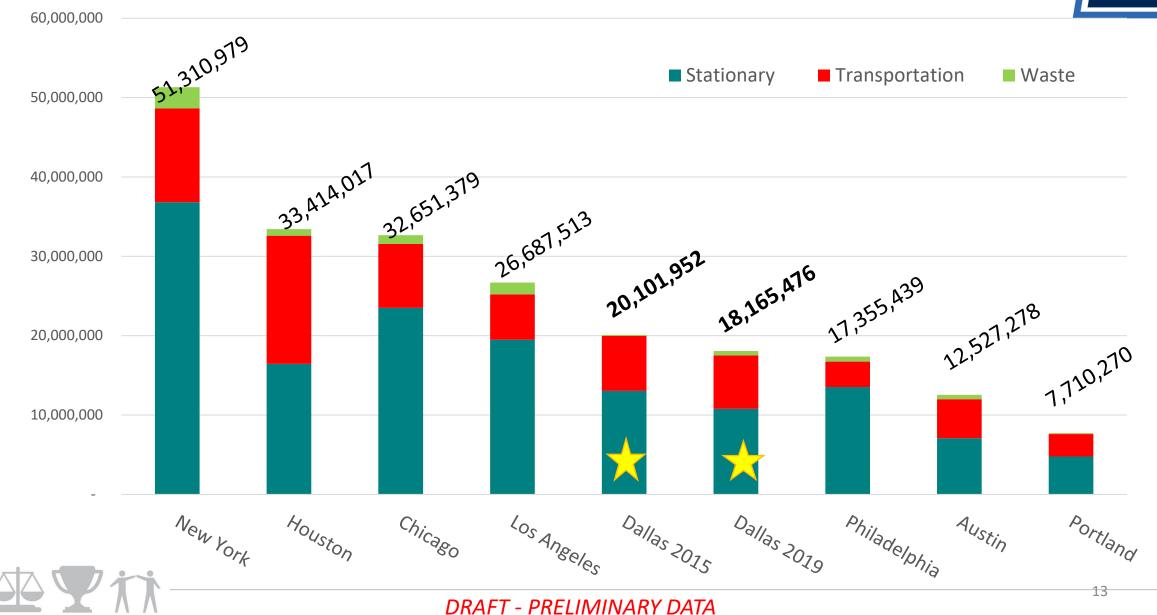


DRAFT - PRELIMINARY DATA

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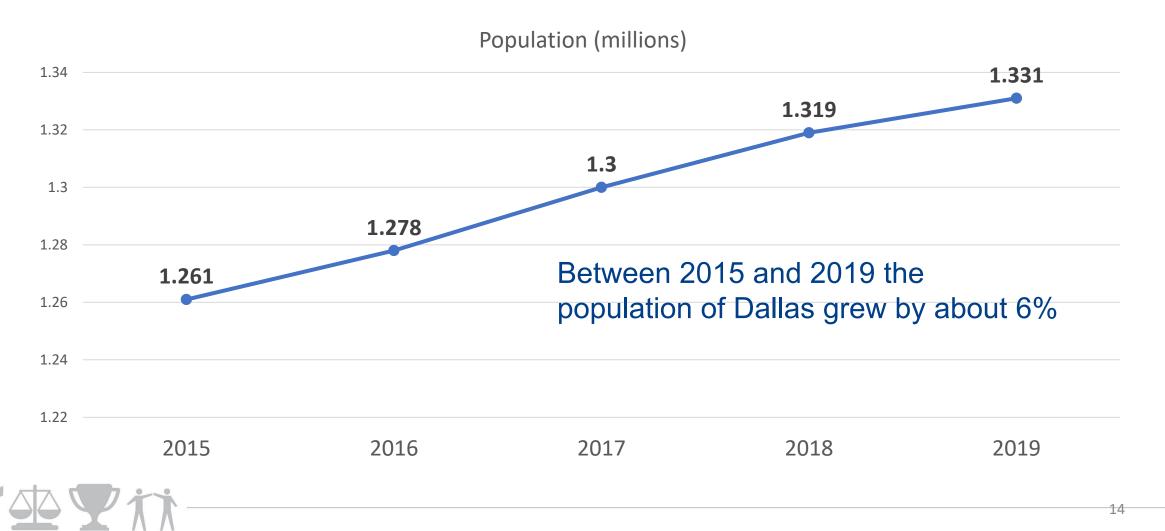
C40 City Comparison





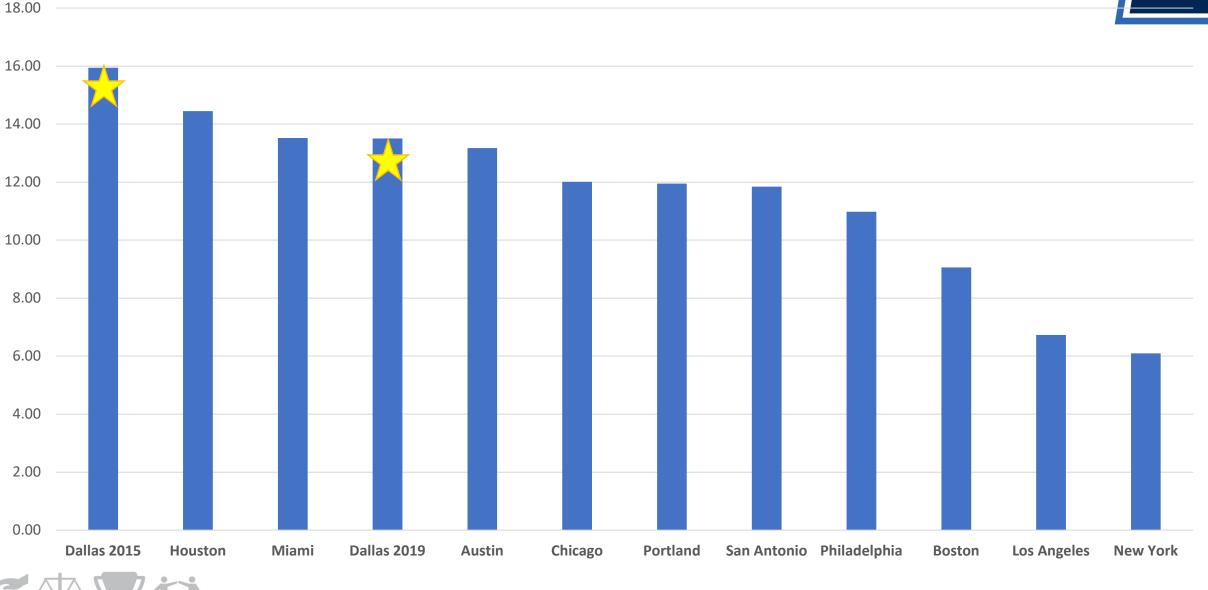
City of Dallas Population Growth





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Greenhouse Gas (MT CO2e)/ Capita (2019)



Conclusions



- Community emissions are down even though population increased
 - Population grew by 6% from 2015 to 2019, but community emissions decreased by 12%
 - In 2015 the per capita community emissions were 16.2 T/person
 - In 2019 the per capita community emissions were 13.5 T/person
- Significant progress in key areas Buildings and energy
- Community energy use is lower
- City electricity use is offset by Renewable Energy Credits
- Progress made in calculation methodology and data collection
- Working with NCTCOG on a regional inventory has been helpful

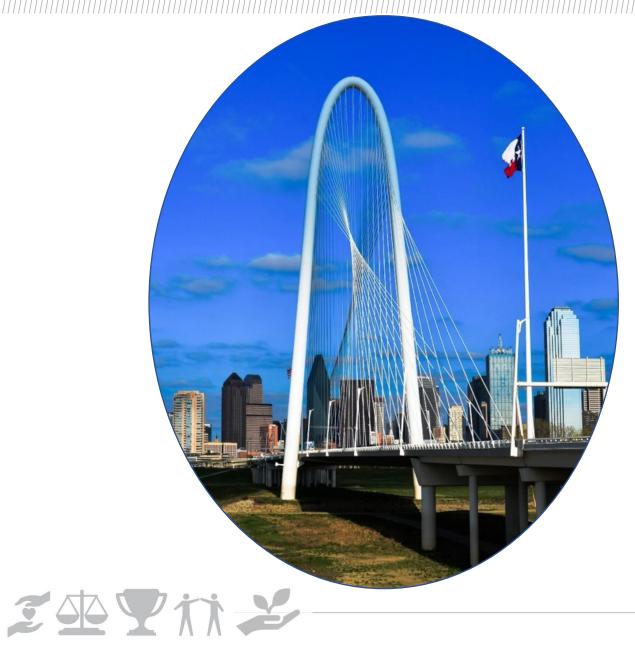


Next Steps

- Wrap loose ends
- Project trends
- Identify opportunities to further reduce emissions
- Assess alignment with CECAP goals
- Work with NCTCOG & Regional Partners towards regional inventory and air quality compliance improvements







QUESTIONS AND DISCUSSION

DRAFT - PRELIMINARY DATA City Government Summary of GHG Emissions by Scope and Sector					
Scope	Sector	МТ С	% Change		
	Jettor	2015	2019		
Scope 1	Buildings & Facilities	14,599	8,289	-43%	
	Solid Waste Facilities	135,486	534,477	+294%	
	Vehicle Fleet	58,639	56,323	-4%	
	Water & Wastewater Treatment Facilities	273	1	-100%	
	Process & Fugitive Emissions	3,962	0	-100%	
	Subtotal: Scope 1	212,959	599,090	+181%	
Scope 2	Buildings & Facilities	123,874	102,120	-18%	
	Solid Waste Facilities	676	620	-8%	
	Streetlights & Traffic Signals	58,445	32,506	-44%	
	Water & Wastewater Treatment Facilities	245,678	189,700	-23%	
	Subtotal: Scope 2 (Gross)	428,673	324,946	-24%	
	Renewable Energy Credits (RECs)*	-186,230	-280,590	+51%	
	Subtotal: Scope 2 (Net)	242,443	44,356	-82%	
Scope 3	Employee Commute	0	13,166		
	Process & Fugitive Emissions	0	360		
	Buildings & Facilities	0	26,520		
	Subtotal: Scope 3	0	40,046		
Total (Gross)		641,632	964,082	1 9⁺50% 85	
Total (Net)		455 402	683 492	+50%	



2019 Greenhouse Gas Emissions Inventory

Environment & Sustainability Committee June 6, 2022

Susan Alvarez, PE, CFM Assistant Director Office of Environmental Quality & Sustainability

> Michael Young Technical Project Manager National Renewable Energy Lab₈₆

Annual Summary Report on Progress towards CECAP Targets

Environment & Sustainability Committee June 6, 2022

Carlos Evans, Director Office of Environmental Quality & Sustainability









To provide regular reporting on status consistent with requirements of CR 20-688 that adopted the CECAP:

"SECTION 5. That the City Manager provide the Environment and Sustainability Committee or other designated City Council Committee with regular reporting concerning progress on CECAP implementation."

Overview – "Big Picture"

- CECAP Targets/Goals
- Opportunities Moving Forward
- Questions

ZAYTI >



CECAP: Target Overview









CHARGING



NET ZERO ENERGY NEW CONSTRUCTION

ENERGY USE IN EXISTING **RESIDENTIAL BUILDINGS**

PUBLICLY AVAILABLE EV SOLAR POWER GENERATED RENEWABLE ELECTRICITY PLANS

ELECTRIC FLEETS SINGLE OCCUPANT

VEHICLE TRAVEL MODE SHIFT

ORGANIC WASTE PAPER WASTE LANDFILL DIVERSION



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

Over-arching Targets from CECAP PP 37-38

WATER CONSUMPTION

WATER FOR INDIRECT REUSE

IMPAIRED WATERBODIES LISTED IN WATERSHED

GHG EMISSIONS FROM TREATMENT FACILITIES





GOAL 1: DALLAS' BUILDINGS ARE ENERGY EFFICIENT AND



TARGETS:

Net zero energy new construction

CLIMATE RESILIENT.

• 100% starting in 2030

Energy use in existing residential buildings

- 10% of existing buildings reduce energy use 10% by 2030
- 10% of existing buildings reduce energy use 25% by 2050

PROGRESS:

Net zero energy new construction

• Policy/Specifications to be completed in FY 21-22

Energy use in existing residential buildings: [direct data not available...]



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



OTHER NOTABLE SECTOR ASPECTS:

City Energy Efficiency Efforts

- 100 percent wind-generated energy
- 140 municipal buildings have had energy audits to guide decision-making
- April 13, 2022 City Council approved contract towards improving energy efficiency of 3 buildings to allow >57 percent energy savings moving forward

USDOE Better Climate Pledge

 Pledged to reduce Energy Use Intensity and to de-carbonize 140 City buildings in 10 years





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



TARGETS

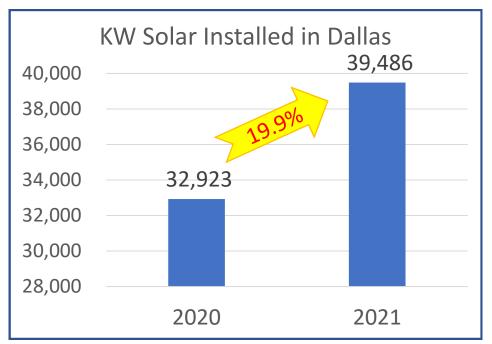
Solar power generated:

- 739,000 KW by 2030
- 3,695,000 KW by 2050

Renewable electricity plans

- 20% of residents + businesses enrolled by 2030
- 50% of residents + businesses enrolled by 2050

Data Sources: <u>Solar Data</u>: Oncor 2020 & 2021 Annual Distributed Renewable Energy Report to PUC Residential Renewable Energy data: US Energy Information Administration <u>https://www.eia.gov/energyexplained/use-of-energy/homes.php</u>



Renewable energy sources—geothermal energy, solar energy, and wood fuels accounted for about **7%** of residential sector energy end use in 2020.

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



OTHER NOTABLE SECTOR ASPECTS: *Renewable Energy on City Facilities*

	Facility	Dept	KW
1	Naval Air Station Dallas*	BSD	45
2	Pleasant Grove Library*	LIB	48
3	Kiest Recreation Center	PKR	76.1
4	NE Dallas Police Department	DPD	83.2
5	North Central DPD	DPD	98.8
6	Southeast DPD	DPD	98.8
7	Fire Station #50	DFD	70.48
8	Prairie Creek Library*	LIB	48
9	Vickery Meadows Library*	LIB	60
Subtotal, Existing:		628.4	
10	Fretz Park Recreation Center	PKR	119.3
11	Pleasant Oaks Recreation Center	PKR	155.5
12	Dallas West Branch Library	LIB	148
New Subtotal, Contracted April 13, 2022:			422.8
TOTAL, City Solar:			1,051.2

Existing Energy Contract: - 100% Wind Energy

Work in Progress: Community Solar Study; Affordable Housing Solar



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

TARGETS

Publicly available EV charging

 1,500 outlets to support 39,000 vehicles by 2030; total shown as 1,160

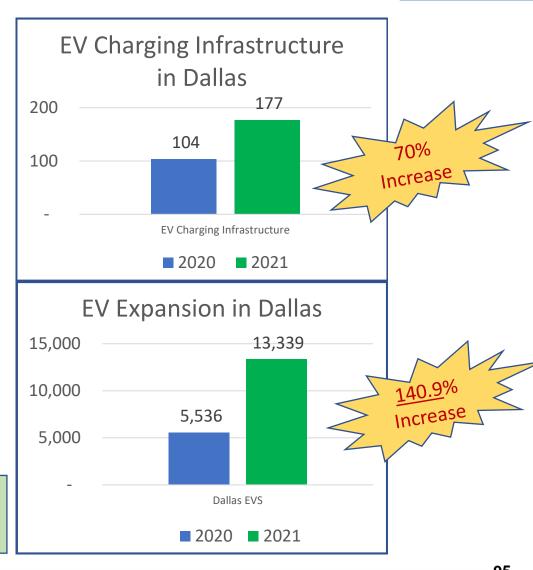
Electric fleets

- All new transit vehicle purchases by the City, DISD, DART fully electric by 2030
- 100% electrified fleet by 2040

Single occupant vehicle travel mode shift

- 88% to 79% in 2030
- 88% to 62% in 2050

Data Source: https://www.dfwcleancities.org/evnt





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



OTHER NOTABLE SECTOR ASPECTS:

Electric fleet

• NREL Fleet Study to be complete in FY 21-22 to guide City efforts to fleet electrification

Single occupant vehicle travel mode shift

- Currently estimated in 2021 to be 79.8% with goals of reduction from 88% to 79% by 2030 and from 88% to 62% in 2050
- <u>However</u>, because of NAAQS non-attainment status, on June 10, 2021, the NCTCOG Regional Transportation Council (RTC) approved R21-04: Resolution establishing a Regional Single-Occupancy Vehicle Trip Reduction Target to Reduce Drive Alone Vehicle Trips in North Central Texas. The resolution establishes a voluntary annual target to reduce SOV commute trips by 20 percent.

Data Source: https://www.dfwcleancities.org/evnt





GOAL 4: DALLAS IS A ZERO WASTE COMMUNITY



TARGETS

Organic waste

- 35% diverted by 2030
- 80% diverted by 2050

Paper waste

- 60% diverted by 2030
- 90% diverted by 2050

Landfill diversion*

- 35% diversion in waste by 2030
- 45% diversion in waste by 2040

Organic Waste: NA

Paper Waste Diversion:

- Estimated Residential Mix Paper to FCC (tons): FY20-21: 22,273
 - (10% increase from 2018)
- Estimated Corrugated Containers to FCC (tons): FY20-21: 7,073
 - (11% increase from 2018)
- Landfill Diversion : ~ 19%





GOAL 5: DALLAS PROTECTS ITS WATER RESOURCES...



TARGETS

Water consumption

• 1% decrease (per-capita) annually

Water for indirect reuse

- 5% implementation by 2030
- 10% implementation by 2050

Impaired waterbodies (303(d) Listed Segments)

• 30%, 60% and 100% reduction by 2030, 2040 and 2050 (*Dallas MS4 Permit Area*)

GHG emissions from treatment facilities

- 45% reduction by 2035
- 100% reduction by 2050

Water Consumption:

Dallas FY2021: 175 GPCD (**4.7**% increase from 2020) Fiscal Year 2020. Dallas' 10 year rolling average reduction: (-1.4%) <u>Water for Indirect Reuse</u>: **3.65%** of DWU supplied water DWU was indirect reuse in 2021 <u>Impaired Water Bodies</u>: NA*

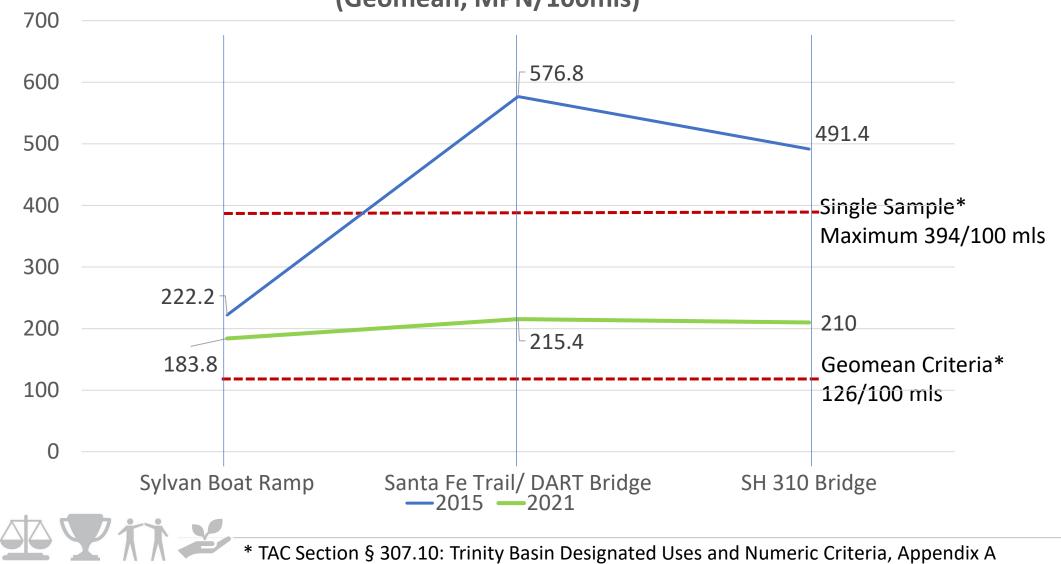
<u>GHG Emissions from Treatment facilities</u>: 100% RECS for power; emissions from sludge digestor used with cogeneration for onsite power generation

* TMDL Plan underway, February, 2022





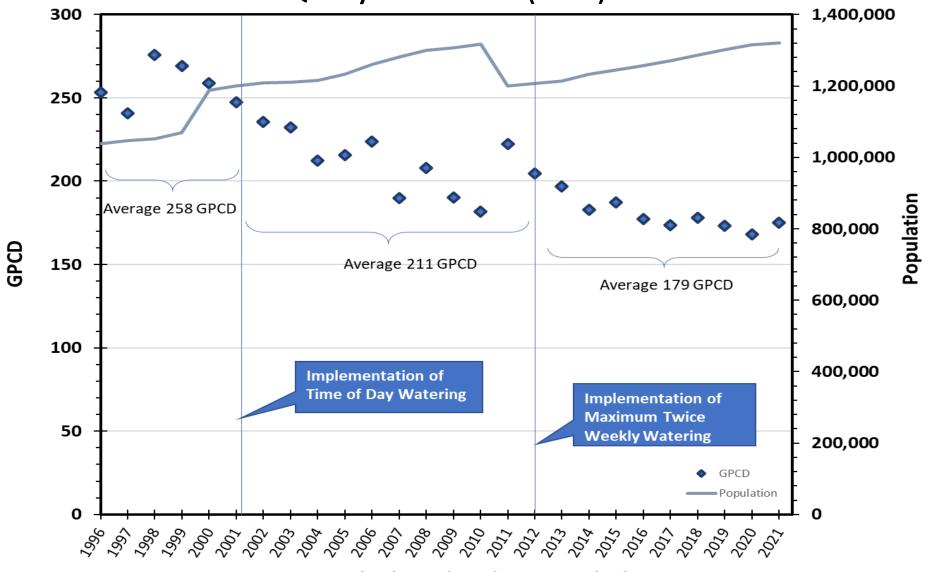
Bacteria Trends on Main Stem Trinity River (Geomean, MPN/100mls)



GOAL 5: DALLAS PROTECTS ITS' WATER RESOURCES ...







GOAL 6: DALLAS PROTECTS AND ENHANCES ITS ECOSYSTEMS, TREES AND GREEN



TARGETS

Canopy cover citywide

SPACES

- 33% by 2030
- 37% by 2040
- 40+% by 2050

Urban heat island index

- 20% reduction by 2030
- 50% reduction by 2040
- 75% reduction by 2050

Park or trail access (1/2 mile walk)

- 80% of the population by 2030
- 90% of the population by 2040
- 95% of the population by 2050

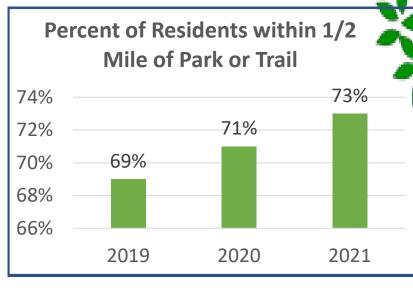
PROGRESS

Canopy cover citywide

• Holding at 32%

Urban heat island index

(Updated data NA)



Data Source: Trust for **Public Lands**

GOAL 6: DALLAS PROTECTS AND ENHANCES ITS' GREEN SPACE...



Park Land Expansion & Tree Canopy Protection (Added 193.8 Acres + 26.5 acres under design/construction)

- Woody Branch Park: 82 acres, acquired by City of Dallas with Trust for Public Lands, April, 2021 (Reforestation Fund)
- South Oak Cliff Renaissance Park: **1.8** Acres, acquired by City of Dallas with Trust for Public Lands, November 2021 (RF)
- Parkdale Lake Park: 110 acres, donated by Oncor Electric to the City of Dallas, November, 2021
- Carpenter Park: 5.6 acres, opened for public use, May, 2021
- Southern Gateway Deck Park: 5.2 acres, under construction over I35 in North Oak Cliff
- * <u>Klyde Warren Park Expansion</u>: **1.7** acres, under design over Walton Walker Freeway connection
- Fair Park Community Park: 14 acres, under design for Fair Park
- ✤ <u>Hi-Line Connector Trail</u>: several trail connections, construction contract approved, April 27, 2022

Tree Planting Efforts in 2021: (6,525 Trees)

- City planted about 2,600 trees through Branch Out Dallas (residential property)
- Parks Department planted about 1,400 trees through Branching Out Dallas
- Texas Trees Foundation planted ~2,500 trees through Cool Schools, Breathe Easy Dallas, and other programs
- Trust for Public Lands planted ~ 75 trees in the Highland Hills neighborhood



GOAL 7: ALL DALLAS' COMMUNITIES HAVE ACCESS TO HEALTHY, LOCAL FOOD. (Establishing Baseline)

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.

Targets

Healthy, affordable food access (<1/2 mile)

- 50% of the population by 2030
- 75% of the population by 2040
- 100% of the population by 2050

Urban gardens producing local food (acres)

- Increase in 20% by 2030
 Increase in 50% by 2040 *2021 Farm Acreage: 14.9 Acres*
- Increase in 75% by 2050

Sourcing from local producers

- Increase in 10% by 2030 <u>2021 Local Sources</u>:
- Increase in 25% by 2040 ~ 8 percent
- Increase in 50+% by 2050



GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.



TARGETS

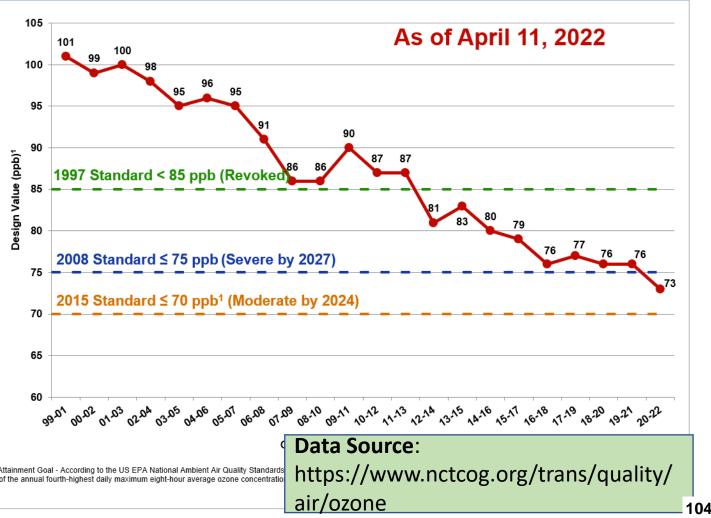
Ground level ozone

 Meet NAAQS attainment standard by 2030; maintain status through 2050

Air pollutants

 Maintain NAAQS attainment status through 2050 (includes lead, carbon monoxide, nitrogen dioxide, particulate matter (PM₁₀), particulate matter (PM_{2.5}) and sulfur dioxide)

8-HOUR OZONE NAAQS HISTORICAL TRENDS





GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.



OTHER NOTABLE SECTOR ASPECTS:

Air Quality Regulatory Changes

- 2008 Ozone NAAQS: EPA determination of air quality progress: Dallas is one of seven nonattainment areas to be classified as "Severe" for 2008 ozone NAAQS with a deadline of July 27, 2027 for compliance.
- 2015 Ozone NAAQS: EPA determination of air quality progress: Dallas is one of 31 nonattainment areas classified as "Moderate" for the 2015 ozone NAAQS, with a deadline of August 3, 2024 for compliance.





GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.



OTHER NOTABLE SECTOR ASPECTS (Continued):

Non-Regulatory Neighborhood Air Quality Program: (12 monitors in 2021; 39 more in 2022)

- City has implemented non-regulatory monitors in south Dallas and the Southwest Medical District to attain air quality data showing local trends in air quality in- and around schools with statistically higher prevalence of pediatric asthma.
- Staff are continuing this work in West Dallas, and other neighborhoods with similar concerns during 2022 to propose policy solutions.
- Staff are working with public health experts to develop and implement appropriate health interventions.





GOAL 8: ALL DALLAS' COMMUNITIES BREATHE CLEAN AIR.



OTHER NOTABLE SECTOR ASPECTS (Continued):

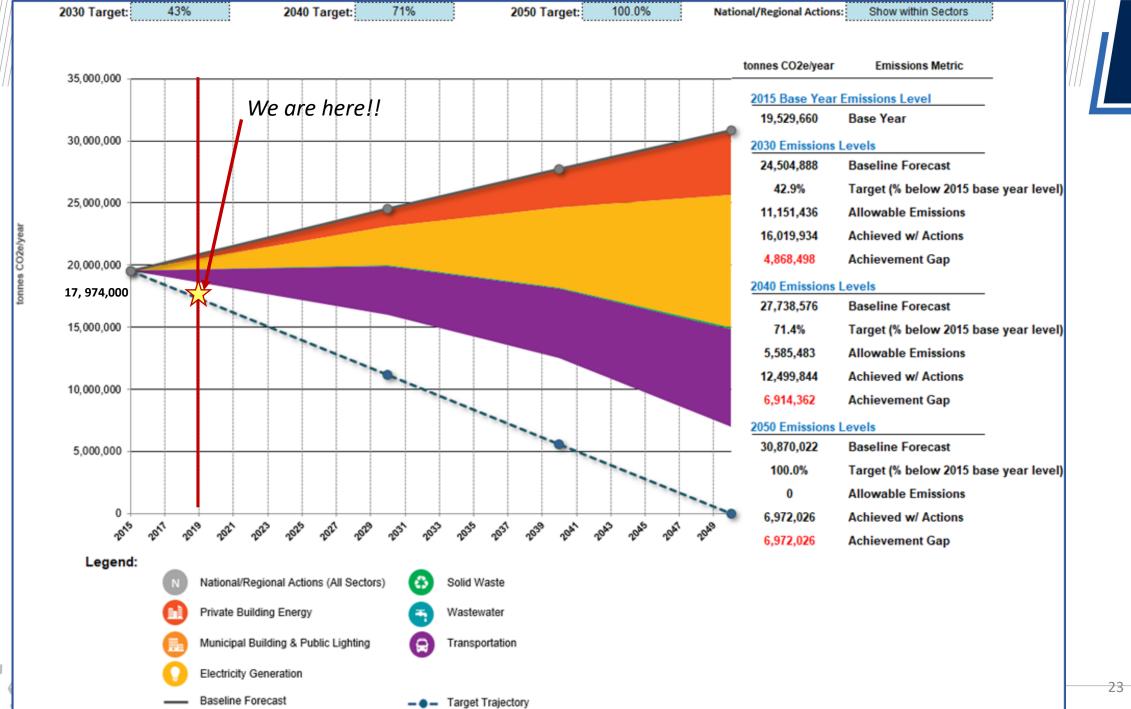
Other Ongoing Air Quality Actions:

- Updating batch plant regulations to require public hearings; phase 2 may include buffers or other measures to reduce neighborhood impacts.
- Developing Environmental Equity Checklist for use on City projects to prevent inappropriate batch plant locations in/near critical receptors, particularly on Cityconstruction efforts.
- Updating City policy concerning gas-powered landscape equipment.
- Updating Comprehensive Land Use Plan to address historic inappropriate legacy land use adjacencies.





Greenhouse Gas Inventory 2019 Update



From the IPCC Sixth Report (April 4, 2022)



B.2 GHG emissions have increased since 2010 across all major sectors globally. An increasing share of emissions can be attributed to urban areas....in particular increases from rising global activity in industry, energy supply, transport, agriculture and buildings. (high confidence)

C.7. Buildings are projected to approach net zero GHG emissions in 2050 if policy combining ambitious sufficiency, efficiency, and renewable energy measures, are effectively implemented and barriers to decarbonization are removed.

....well-designed and effectively implemented mitigation interventions, have significant potential to contribute to achieving SDGs in all regions while adapting buildings to a future climate.



23

From the IPCC Sixth Report (April 4, 2022)



C.7.2 Integrated design approaches to the construction and retrofit of buildings have led to increasing examples of zero energy or zero carbon buildings...

- Design mitigation interventions include: building typology, form, and multi-functionality and repurposing unused existing buildings to avoid using GHG-intensive materials and additional land.
- Construction mitigation interventions include: low-emission construction materials, highly efficient building envelope and the integration of renewable energy solutions.
- Operations interventions include: highly efficient appliances/ equipment, the optimization of of building use and low-emission energy

D.2.1 Sustainable urban planning and infrastructure design including green roofs and facades, networks of parks and open spaces, management of urban forests and wetlands, urban agriculture, and water-sensitive design can deliver both mitigation and adaptation benefits (*medium confidence*).



Available at: https://www.ipcc.ch/assessment-report/ar6/

Opportunities Moving Forward – Continue...

- Updating Green Building Policy for Net Zero Carbon and related specifications
- Building energy equity such as community solar and weatherization program
- Diversifying travel mode and fleet electrification
- Quantifying water quality improvements under the Municipal Separate Storm Sewer System (MS4) Permit
- Exploring opportunities to divert organic materials, like plant and food waste
- Implementing Urban Forest Master Plan
- Expanding green space and protecting existing tree canopy
- Ensuring local healthy food access and increasing local production
- Implementing neighborhood air quality monitoring program
- Updating 2017 Heat Island Study to assess improvement





Appendices



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Sustainable Procurement Policy

Resolution # 21-0908 adopted by Dallas City Council in May 26, 2021



- Is a "comprehensive Sustainable Procurement Policy to guide procurement decisions to positively impact the City's social, economic, and environmental health"
- Implemented through a Sustainable Procurement Working Group of affected departments
- Sustainable Procurement Working Group is charged with maintaining environmentally preferred products lists, <u>identifying sustainability labels</u> <u>and standards to use in writing specifications</u>, <u>analyzing citywide</u> <u>purchases for efficiency and waste reduction opportunities</u>, and making other recommendations related to the social, economic, and environmental aspects of contracting; these recommendations shall be included in the City's Administrative Directive 4-05, as appropriate.



CECAP & UN Sustainable Development Goals





Annual Summary Report on Progress towards CECAP Targets

Environment & Sustainability Committee June 6, 2022

Carlos Evans, Director Office of Environmental Quality & Sustainability

City of Dallas





City of Dallas

Agenda Information Sheet

File #: 22-1613

Item #: B.

Fleet Electrification Analysis

[Donzell Gipson, Director, Equipment & Fleet Management; Vincent Olsen, Assistant Director, Equipment & Fleet Management; Ken Kelly, Cory Sigler, Matt Jeffers, National Renewable Energy Laboratory]





City of Dallas Fleet Electrification Analysis - *Executive Summary*

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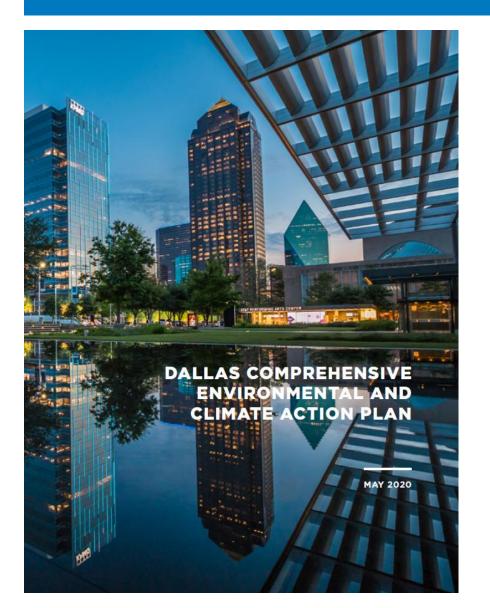
- See full presentation for supporting data and analyses

National Renewable Energy Laboratory Ken Kelly, Cory Sigler, Matt Jeffers

August 2022

Photo by Gabriel Tovar on Unsplash

Dallas Fleet Electrification Goals



Dallas Comprehensive Environmental and Climate Action Plan (CECAP)

- The Intergovernmental Panel on Climate Change (IPCC) recommends reducing GHG emissions to net zero by 2050 to limit the increase in global temperatures to below 1.5°C.
- The City of Dallas is **committed to meeting the international emission reduction targets** set by the Paris Agreement in 2016.
- The 2015 greenhouse gas (GHG) inventory reported that 35% of Dallas' GHG emissions come from transportation sector.
- The CECAP provides a roadmap for the City to improve quality of life, to reduce greenhouse gas emissions, to prepare for the impacts of climate change, and to create a healthier and more prosperous community.

Fleet Electrification Considerations

- What are the overall goals of the Dallas fleet electrification plan?
- Where are the best opportunities for fuel reduction and emissions reduction?
- Which vehicle duty cycles are suitable for electrification?
- Which vehicles are eligible for electrification (i.e., nonemergency response or non-special purpose vehicles)
- Which vehicles are nearing retirement or overdue for replacement?
- Which vehicles have an electric model that's commercially available today?
- Which vehicles have dedicated parking locations suitable for charging equipment?
- Which communities or regions of the city stand to benefit the most from lower emissions and improved air quality?
- What are the vehicle-life economics and what factors influence economic payback and GHG savings

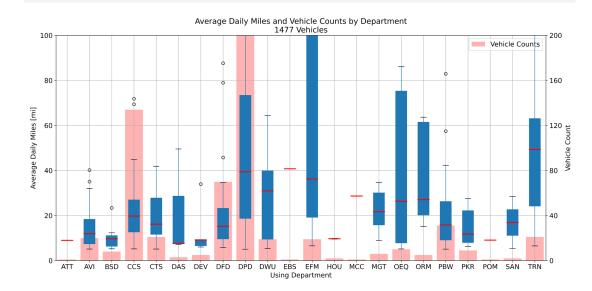
Data-driven Analysis Approach

Vehicle Inventory	 Number of vehicles by department Vehicle class/type by department Vehicle age
Vehicle Operation	 Annual vehicle miles traveled (VMT) by department and vehicle type Estimated daily miles traveled per vehicle
Fuel/Energy Consumption	 Annual fuel consumption by department and vehicle type Estimated daily energy consumption per vehicle
Vehicle Replacement Criteria	 Review of replacement eligibility criteria Review of replacement ranking, year and cost by vehicle
EV Availability	 Alternative Fuels Data Center (AFDC) Advanced Vehicle Search tool Review of commercially available EVs by vehicle class and type MSRP values
EV and EVSE Economics	 Inputs from steps above feed VICE Economic Model (cost and operations) Light-duty sedans and pickup scenarios evaluated Parametric sweeps show impacts of key input parameters
GHG Impacts	 Data on regional energy generation energy and vehicle efficiencies GREET Model to estimate GHG impacts of EV replacements Combine VICE economics and GREET GHG to estimate cost of GHG offsets
	_{NREL} 120

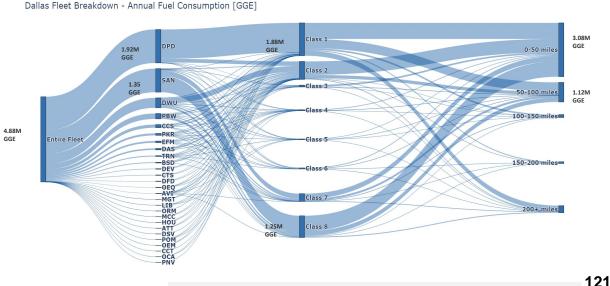
Dallas Fleet Electrification Process

- Review of Established Transportation Energy Goals / Policies
- Dallas Fleet Inventory Energy Consumption and Usage
 - Fleet inventory and usage statistics
 - ZEV model availability
 - Energy breakdown by vehicle types and departments
 - Vehicle energy requirements / duty cycle analysis
 - Fleet replacement criteria vehicle age / mileage
 - Selection of priority electrification candidates
- Infrastructure Requirements
 - Priority charging locations
 - Vehicle dwell times and fleet parking locations
 - Utility rates / rate structures
- Cost of Operation / Ownership Estimation
 - Cost data collection (fleet) fuel cost, electricity cost, maintenance
 - Cost data collection (market) fuel cost, electricity cost, maintenance
 - Cost calculations e.g., Vehicle Infrastructure Cash-Flow Evaluation (VICE) tool

Fleet Inventory Usage Statistics



Entire Fleet Energy Consumption by Department and Vehicle Type



Dallas Fleet Vehicle Usage

Dallas fleet inventory data reveals the number, size, and type of vehicles operated by each city department, as well as:

- Annual fuel consumption
- Average daily vehicle miles traveled (VMT)

Review of GPS data for select vehicle groups indicates that

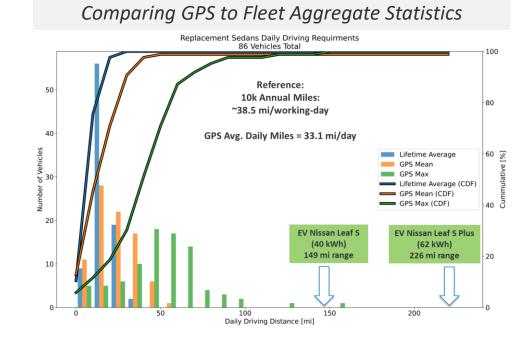
- GPS daily VMT somewhat higher than estimated annual averages
- GPS data indicate that most vehicles have maximum daily driving distances well within the range of suitable replacement EVs

Vehicle age and anticipated replacement dates suggest many Admin Sedans and Light Duty Pickups have met replacement criteria

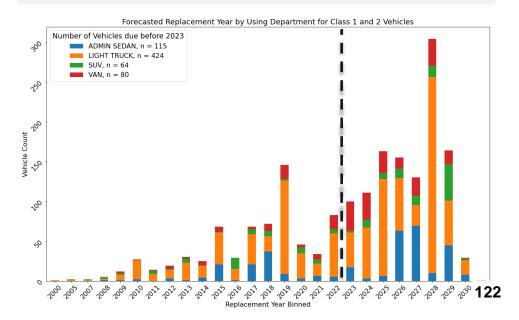
Key Takeaways: Analysis of fleet inventory, usage statistics, and replacement criteria help to narrow the EV candidates.

GPS data provides more detailed info on vehicle daily usage

Candidates for replacement with EVs should be reviewed with the operating managers to ensure specific vehicle suitability – including maximum driving range requirements and energy used for loads during idle

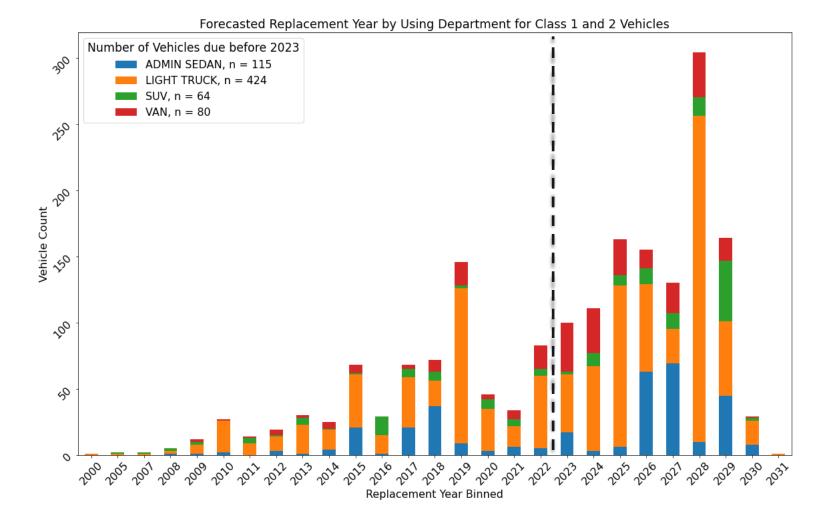


Vehicles Scheduled for Replacement by Type



Vehicle Replacement Schedule

- Dallas has established criteria for replacement/retirement of fleet vehicles, which determines forecasted replacement year
- There are nearly 700 class 1 & 2 vehicles in current fleet with scheduled replacements before 2023 (excluding DPD)
- Sizeable opportunities currently exist for replacement of Admin Sedans and Light Trucks with EV's

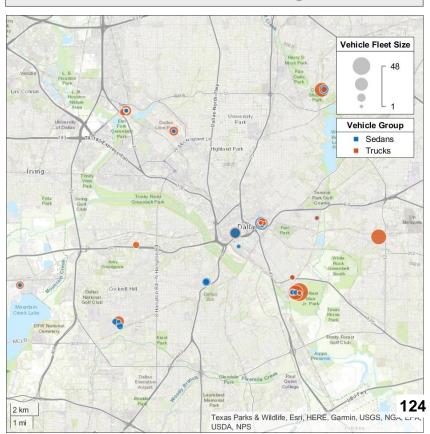


Primary cost drivers for EVSE

- Power level of unit (kW)
 - Level 2 EVSE tend to be much cheaper than DCFC
- Number of charging ports per unit
 - Chargers with multiple connectors/charging ports tend to be cheaper (\$/port)
 - Software can enable simultaneous or sequential vehicle charging
- Mounting type (pedestal or wall-mount)
 - Wall-mounted units tend to be cheaper than pedestalmounted, for hardware and installation
- Internet connectivity
 - Networked EVSE—enabling mobile app connectivity, pointof-sale capability and other features—increases EVSE costs
- EVSE location and number of units installed
 - Will have a large impact on construction and installation costs
- EVSE costs are variable and can be challenging to predict
 - It is recommended to purchase and install only the minimum charging level and capabilities needed







Locations with sedans & light trucks

Vehicle and Infrastructure Cash Flow Evaluation (VICE) model Key Inputs & Outputs

General In	put Parameters				
Number of vehicles			Example of VICE model results		
Annual VMT (miles)			Differential Net Present Cost, EV vs CV		
Expected vehicle lifetime (years)					
Rate of retu	ırn, discount rate		\$10,000 \$8,000 Upfront investment (higher cost for EV+EVSE) Net present cost at		
Vehicle-Specific Inputs	Conventional	Electric	\$6,000 end of expected life		
Purchase cost (\$)	\checkmark	\checkmark	\$6,000 \$4,000 \$4,000 \$2,000		
Fuel efficiency (mpg, kWh/mi)	\checkmark	\checkmark			
Fuel/electricity price (\$/gal, \$/kWh)	\checkmark	\checkmark			
Maintenance costs (\$/mi)	\checkmark	\checkmark	Image: register (\$4,000) Annual Fuel and (\$6,000) maintenance savings		
Residual/salvage value (\$)	\checkmark	\checkmark	- 130.0001		
EVSE purchase cost (\$)		\checkmark	(\$10,000) residual/resale value Year of Project		
EVSE installation cost (\$)		\checkmark			
Grants/rebates/tax incentives for EVs and EVSE (\$)		\checkmark	_{NREL} 125		

Baseline Inputs & Parametric Sweeps Light Duty Sedan



Swept Parameters

(see backup slides)

EV Cost

• \$28K vs. \$23K (base)

EV Rebates

\$0 (baseline), \$2.5K, 7.5K, 15K per vehicle

EVSE Cost

• \$3K (baseline), \$2K, \$5K each

Daily VMT (miles/day)

• 24.5 miles, 38.5 miles, 46 miles

Gasoline Price

• \$2.36/gal (baseline), \$3/gal, \$4/gal

Extended vehicle life was also projected

• 8 –year vs. 12-year

Values from	
fleet vehicles	
to be replaced	

Values for replacement vehicle options

Model inputs estimated from other data sources

	Parameter	Units	Conventional Vehicle	EV	
	Fleet size	#	10		
s d	Annual VMT	miles	6,382		
ſ	Year/Make/Model		2022 Honda Civic LX	2022 Nissan Leaf S	
r t	Capital cost (MSRP)	\$/vehicle	\$23,365	\$28,425	
s	Fuel efficiency	mpg kWh/mi	34 mpg	112 MPGe 0.268 kWh/mi	
ſ	Fuel price	\$/gal \$/kWh	\$2.36/gal	\$1.71/gal \$0.052/kWh	
s	Maintenance cost	\$/mi	\$0.187	\$0.117	
a -	Salvage value	% of MSRP	~31%	~17%	
S	EVSE cost	\$/EVSE	n/a	\$1,000 + \$2,000	
	Rebates	\$/vehicle	n/a	\$0	

Dallas Fleet EV Economics Light-Duty "Administrative Sedans"

VICE Economic Model Results – Light Duty Sedans

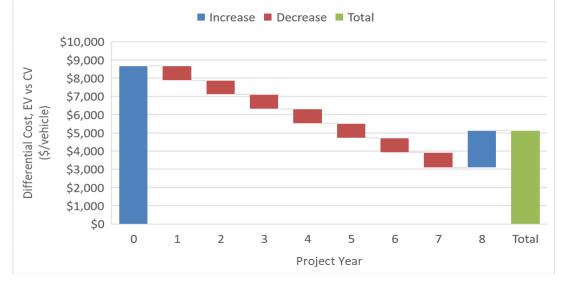
- The base 2022 Nissan Leaf Model S appears capable of meeting "most" driving range requirements at a lower price point -40-kWh battery/149-mile EV range
- Baseline total net present cost at end of expected 8-year life = \$4,345 per vehicle) – vehicle operation beyond year 8 continues to accrue savings
- Operational savings accumulate faster when replacing vehicles that are driven more – this can be done well within estimated Nissan Leaf S range of 149 miles

Scenarios to achieve lifetime "cost parity" include

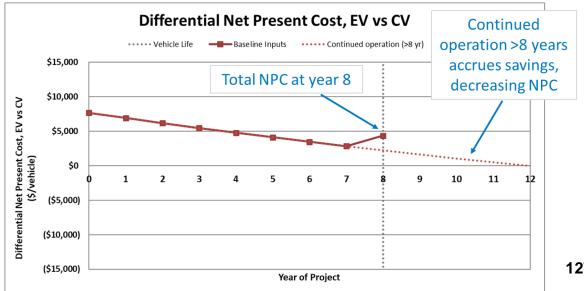
- Case 1: \$2.5K EV rebate
- Case 2: Lower EVSE cost (\$2.5K), higher gas price (\$3/gal) and VMT (8K miles/year)

VICE Model Results – baseline lifetime costs & savings





VICE Model Results – lifetime cost differential



Baseline Inputs & Parametric Sweeps **Pickup Trucks**



	Parameter	Units	CV	EV
Values from fleet vehicles to be replaced	Fleet size	#	ç)
	Annual VMT	miles	7,731	
	Year/Make/Model		2022 Ford F-150	2022 Ford F-150 Lightning
Values for replacement vehicle options	Capital cost (MSRP)	\$/veh	\$31,685	\$41,669
	Fuel efficiency	mpg kWh/mi	18 mpg	67 MPGe 0.426 kWh/mi
Ì	Fuel price	\$/gal \$/kWh	\$2.36/gal	\$1.71/gal \$0.052/kWh
Model inputs estimated from other data sources	Maintenance cost	\$/mi	\$0.247	\$0.154
	Salvage value	% of MSRP	~31%	~18%
	EVSE cost	\$/EVSE	n/a	\$1,000 + \$2,000
	Rebates	\$/vehicle	n/a	\$0

Swept Parameters

(see backup slides)

Daily VMT (miles/day)

30 miles (baseline), 38.5 miles, 46 miles •

Gasoline Price

\$2.36/gal (baseline), \$3/gal, \$4/gal •

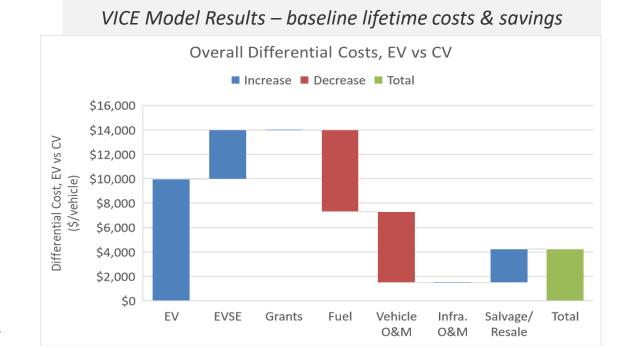
Extended vehicle life was also projected

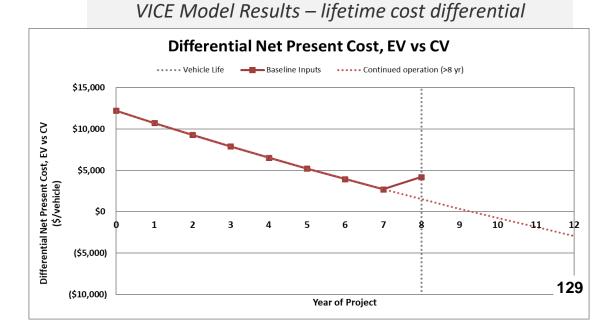
• 8 –year vs. 12-year

Dallas Fleet EV Economics Light-Duty Pickup Trucks

VICE Economic Model Results – Light Duty Pickups

- The 2022 Ford F-150 Lightning Pro appears to be capable of meeting "majority" of driving range requirements at a lower price point – 98-kWh battery/230-mile EV range
- Baseline net present cost at end of 8-year life ~ \$4,202 per vehicle – vehicle operation beyond year 8 continues to accrue savings
- Annual Operational savings accumulate faster for EV pickups than EV sedans – due to higher relative energy savings
- Operational savings accumulate faster when replacing vehicles that are driven more – this can be done well within estimated Ford F150 Lightning Pro EV driving range of 230 miles



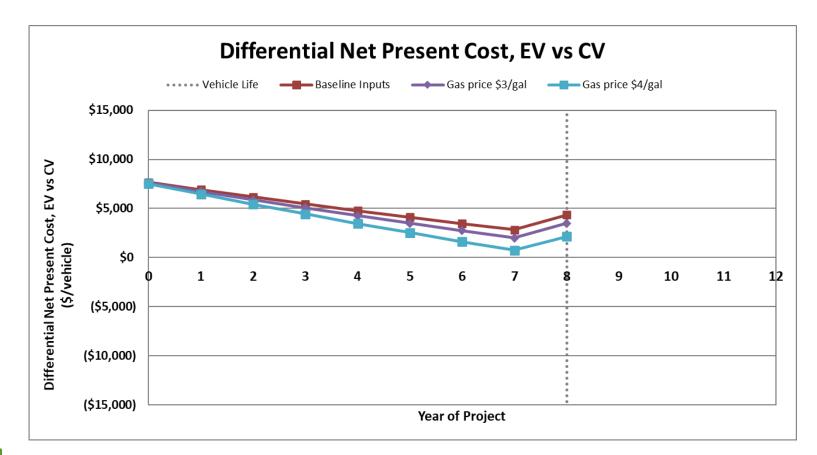


VICE Model Results – Impact of Fuel Prices

Impact of gas price

- Baseline gas price = \$2.36/gal (2021 Dallas avg.)
- Gas price \$3/gal represents small increase
- Gas price \$4/gal represents larger increase (similar to current gas prices)

Takeaway: Higher gasoline fuel prices (relative to electricity costs) impact rate of savings and payback period for the EV option





<u>Electric Vehicle</u> 2022 Nissan Leaf S



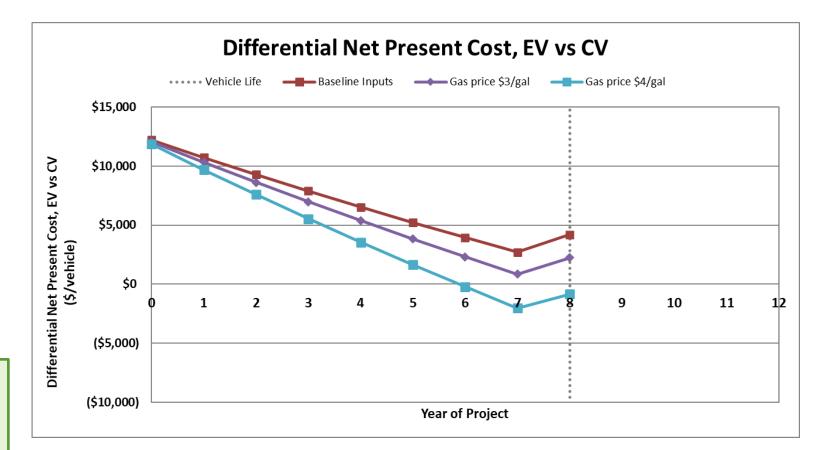
Conventional Vehicle 2022 Honda Civic LX

VICE Model Results – Scenario 2 (trucks)

Impact of gas prices

- Baseline gas price = \$2.36/gal (2021 Dallas avg.)
- Gas price \$3/gal represents small increase
- Gas price \$4/gal represents larger increase (similar to current gas prices)

Takeaway: Higher gasoline fuel prices (relative to electricity costs) impact rate of savings and payback period for the EV option





Electric Vehicle

2022 Ford F-150 Lightning

Conventional Vehicle 2022 Ford F-150

VICE Model Summary

- The VICE model provides a comparison of project economics and investigate scenarios for a purchase of EVs and EVSE compared to a purchase of conventional vehicles
- Upfront project costs have a large impact on overall economics
 - Relative purchase price of EV compared to comparable CV
 - Equipment and installation costs of EVSE for EV fleet being purchased
 - Note: EVSE costs are highly variable depending on the specific equipment needs and unique circumstances of the charging location
 - The value of GHG emissions reductions and air quality improvements should be considered
- Financial incentives such as grants, rebates and tax credits can have a large impact on project economics
 - Numerous programs exist for federal and state funding for EVs and for EVSE
- EVs can accrue savings from lower per-mile fuel and maintenance costs compared to CVs, but these costs carry some uncertainty
 - Low fixed electricity price for Dallas is very advantageous for vehicle electrification
- Lead times for EVSE (procurement, permitting, site preparation/construction, installation) can be longer than lead times for EVs
 - Begin process to establish charging infrastructure to enable deployment of EV fleets

Estimation of Cost per ton GHG Offset assuming zero-carbon "green" electricity

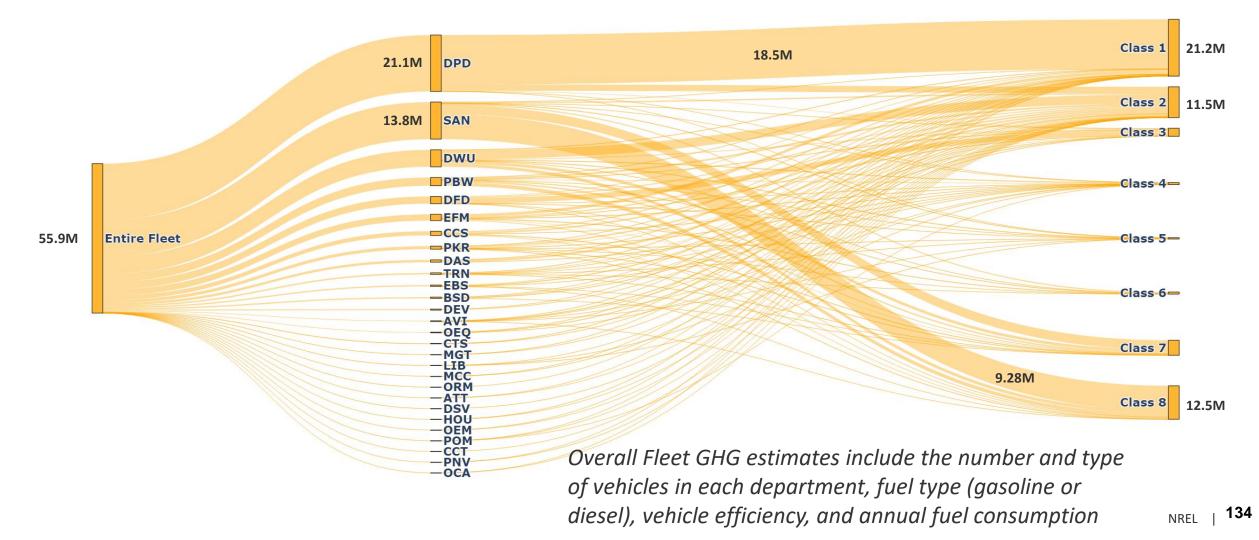
Parameter	Units	Baseline Scenario 1 (sedans)	Baseline Scenario 2 (light trucks)
VICE model total project cost per vehicle	\$/vehicle	4,345	4,202
Lifetime emissions reduction (EV vs CV) per vehicle	metric ton CO ₂ e/vehicle	16.03	36.67
Project cost per metric ton CO ₂ e to achieve lifetime emissions reduction	\$/metric ton CO ₂ e	271	114

- The VICE model estimates that purchasing EVs instead of CVs could reduce GHG emissions by
 - 16.03 metric tons CO₂e per light-duty sedan over an eight-year expected lifetime
 - 36.67 metric tons CO₂e per light-duty pickup truck over an eight-year expected lifetime
- Based on the per-vehicle lifetime costs baseline assumptions, GHG emissions reductions are estimated to be
 - \$271 per metric ton CO₂e for the light-duty sedan scenario
 - \$114 per metric ton CO₂e for the light-duty pickup truck scenario
- Any improvement in EV cost will lower the cost to achieve GHG reductions
 - Achieving EV <u>cost parity</u> (through grants or other means discuss previously) results in GHG emissions savings estimated above at no additional cost

Dallas Fleet Annual GHG Emission Estimates

(Excluding vehicles in fleet less than 1 year)

Annual Average GHG Emission Estimates [tonneCO2_e]



Recommendations/Next steps

- 1. Deploy commercially available LD EV sedans and light trucks and charging infrastructure
 - Consider factors from VICE model for each purchase decision to replace retired vehicles
 - Meet with individual departments to review EV replacement recommendations, charging infrastructure and review any special requirements
 - Place EVs in relatively high-mileage service (within EV range) to maximize payback
 - Apply for federal and state grants/rebates working with DFW Clean Cities and others
 - Begin process to install EVSE as soon as possible (working with utility)
 - Track cost and performance data on EVs and EVSE to inform future purchase decisions

Recommendations/Next steps

2. Test/demonstrate Medium- and Heavy-duty EVs in Dallas fleet service

- Medium- and heavy-duty vehicles consume a significant portion of energy within the fleet (e.g., class 8 refuse haulers)
- MD/HD EVs are emerging but in some case products/markets are not fully developed
- Collect detailed in-use data on high priority fleet vehicles to characterize duty cycles and energy requirements to evaluate electrification potential
- Hydrogen fuel cell vehicles may be suitable alternatives for vehicle types/vocations that are more challenging to replace with battery-electric vehicles

3. Coordinate and seek lessons learned from others

- Clean Cities Coalitions DFW Clean Cities and national experience
- Transit industry including DART
- DFW Airport is developing similar ZEV strategies
- Other municipal fleets operating EVs e.g., refuse, police, fire

Thank You!

www.nrel.gov/transportation

We would like to respectfully acknowledge input and guidance from Dallas Fleet Management and Office of Environmental Quality & Sustainability, Dallas Environmental Commission, and DFW Clean Cities - Donzell Gipson, Susan Alvarez, Lori Clark – and many other contributors

NREL Center for Integrated Mobility Sciences

Ken Kelly, Chief Engineer for Commercial Vehicle Electrification kenneth.kelly@nrel.gov

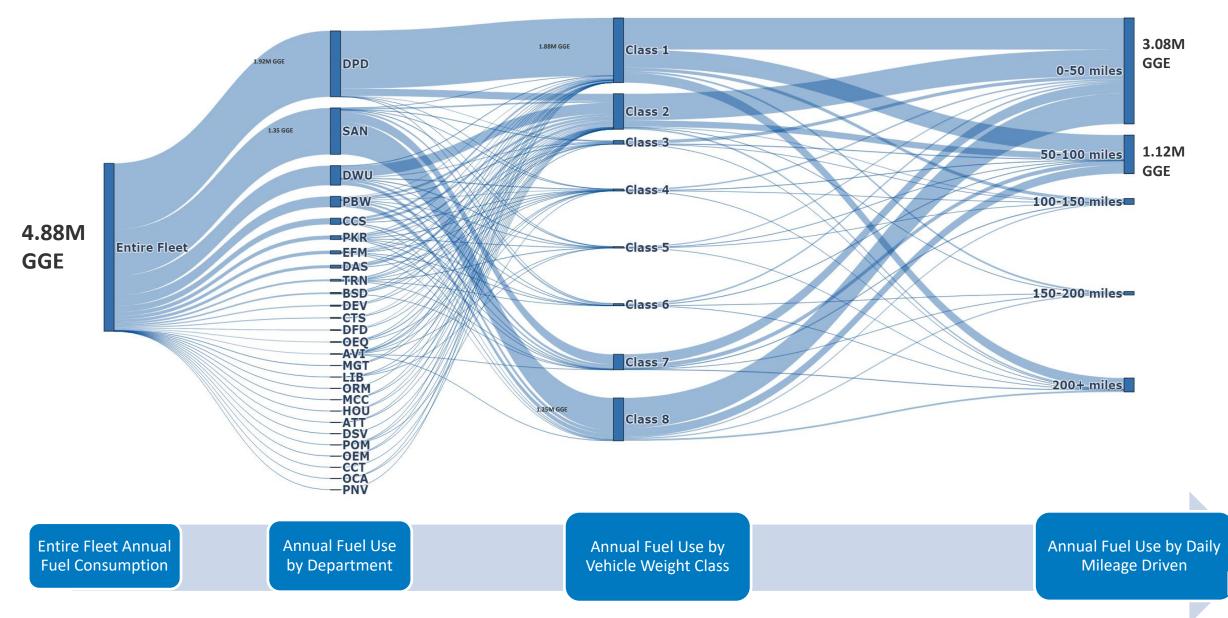
Cory Sigler, Commercial Vehicle Research Engineer <u>cory.sigler@nrel.gov</u>

Matt Jeffers, Senior Commercial Vehicle Research Engineer <u>matthew.jeffers@nrel.gov</u>

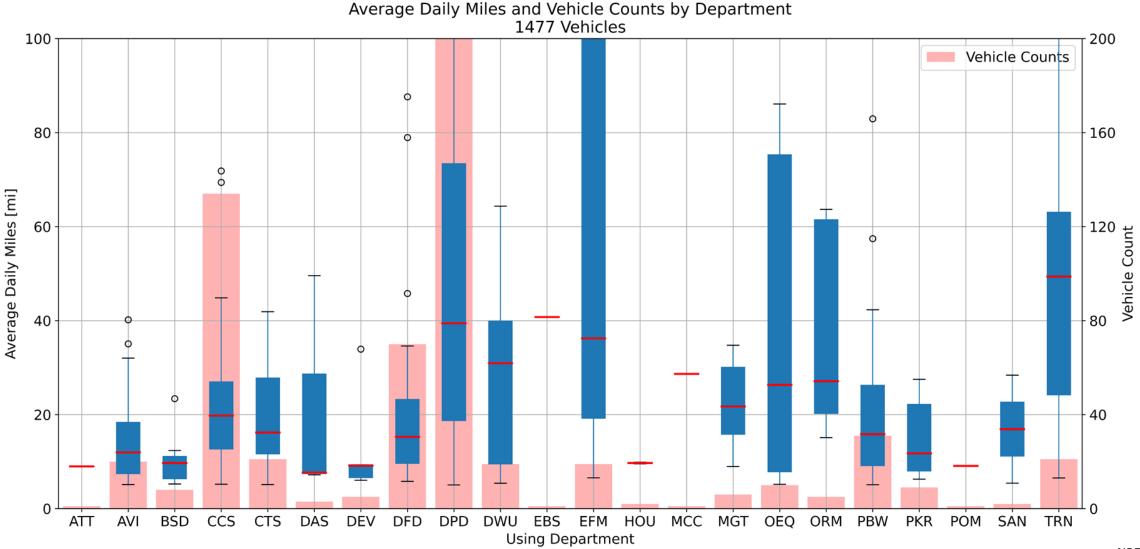


Backup Slides

Annual Energy Consumption by Department and Vehicle Type



Fleet Inventory Usage Statistics

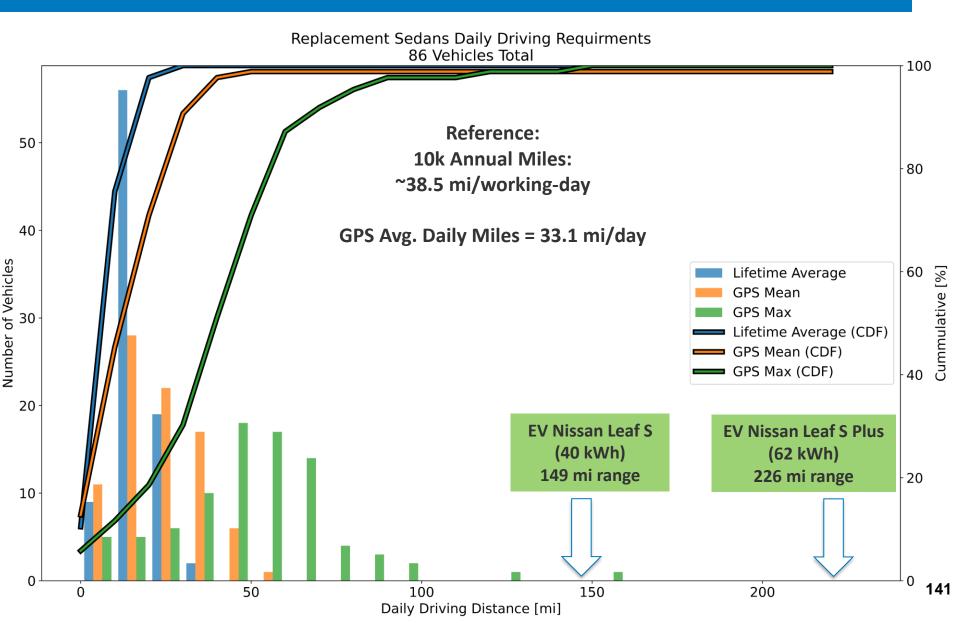


Comparing GPS Data to Aggregate Fleet Averages – Admin Sedans –

Graph shows comparison of GPS daily driving distances to fleet average stats for 86 Admin Sedans scheduled for replacement (with GPS units

GPS average daily miles (orange) are somewhat higher than fleet aggregated data (blue)

Maximum daily miles traveled from GPS are higher than averages, but still within the driving range of Nissan Leaf EV



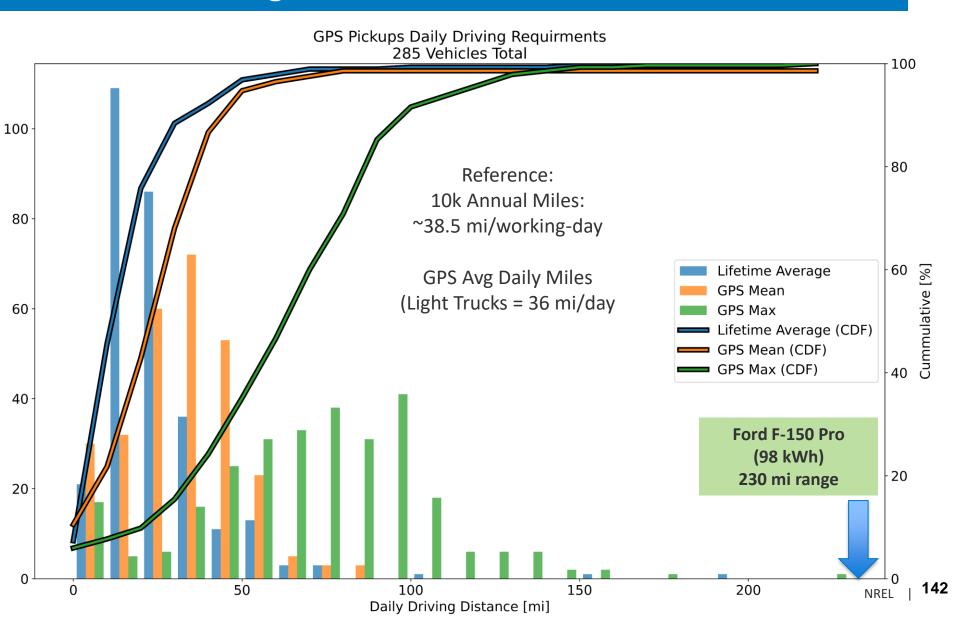
Comparing GPS Data to Aggregate Fleet Averages – Light Trucks –

Graph shows comparison of GPS daily driving distances to fleet average stats for 285 Light Trucks scheduled for replacement (with GPS units)

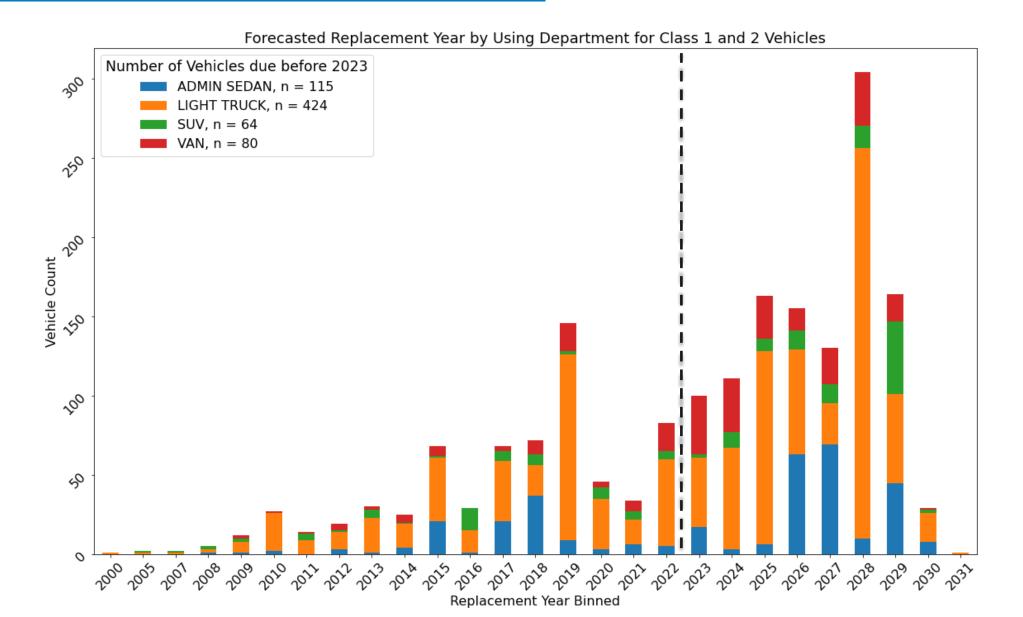
GPS average daily miles (orange) are somewhat higher than fleet aggregated data (blue) of Vehicles

Number

Maximum daily miles traveled from GPS are higher than averages, but still within the driving range of Ford F150 EV



Dallas Fleet Vehicles Scheduled for Replacement by Type



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VICE Model Sources for Key Inputs

Values from fleet vehicles = to be replaced

Values for replacement – vehicle options

Model inputs estimated from other data sources

	Parameter	Units	Conventional Vehicle (CV)	Electric Vehicle (EV)		
ſ	Fleet size	#	Size of subfleet (filtere	d from fleet inventory)		
1	Annual VMT	miles	Average annual VMT of subfleet			
Ī	Year/Make/Model		MY 2022 CV	MY 2022 EV		
	Capital cost	\$/veh	MSRP	MSRP		
	Fuel efficiency	mpg kWh/mi	EPA avg for MY 2022 CV	EPA avg for MY 2022 EV		
Ī	Fuel price	\$/gal \$/kWh	Dallas fuel station 2021 average price	Dallas average electricity price		
	Maintenance cost	\$/mi	Average of subfleet	Estimated from ANL vehicle TCO report		
$\left \right $	Salvage value	% of MSRP	Estimated from ANL vehicle TCO report	Estimated from ANL vehicle TCO report		
	EVSE cost	\$/EVSE	n/a	Estimated equipment + installation cost		
	Rebates	\$/vehicle	n/a	Assume \$0		

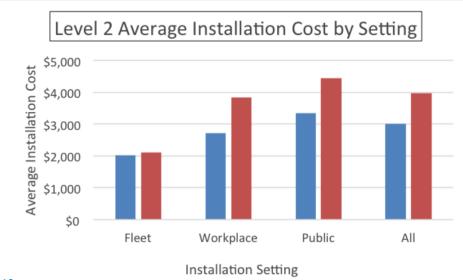
EVSE Cost Considerations

- EVSE costs are variable and can be challenging to predict
 - It is recommended to purchase and install only the minimum charging level and capabilities needed
- Many light-duty vehicles in the Dallas fleet have sufficient dwell time during non-working hours to utilize Level 2 chargers
 - Co-located, overnight parking
 - Some vehicles could share multiport chargers
- Dallas chargers likely will not need internet connectivity or point-of-sale system, as needed with public chargers
 - Could use RFID to restrict use to city employees



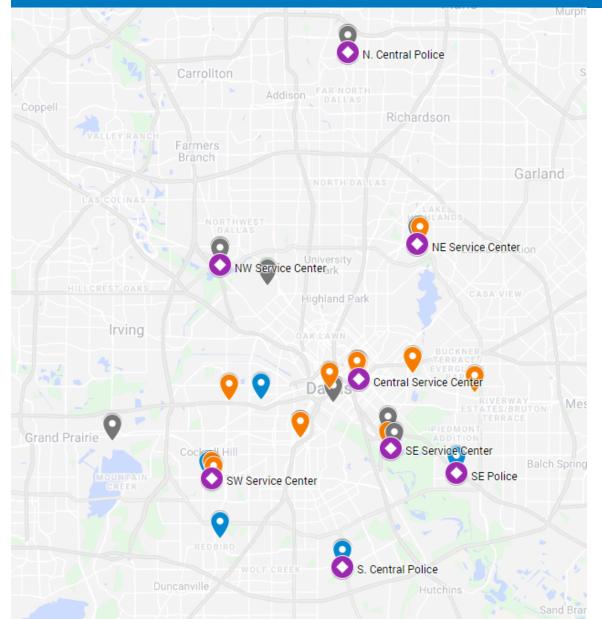






Average Cost per Port Average Cost per EVSE

Dallas Parking & Fueling Locations

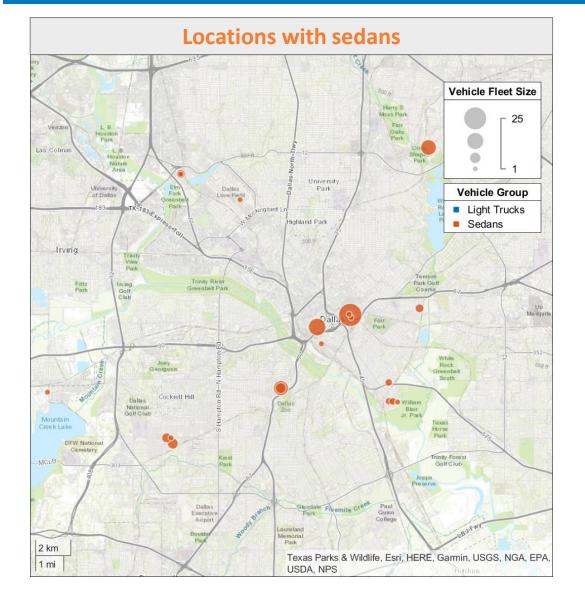


Parking location is an important consideration in selecting vehicles for EV replacement and installing EVSE

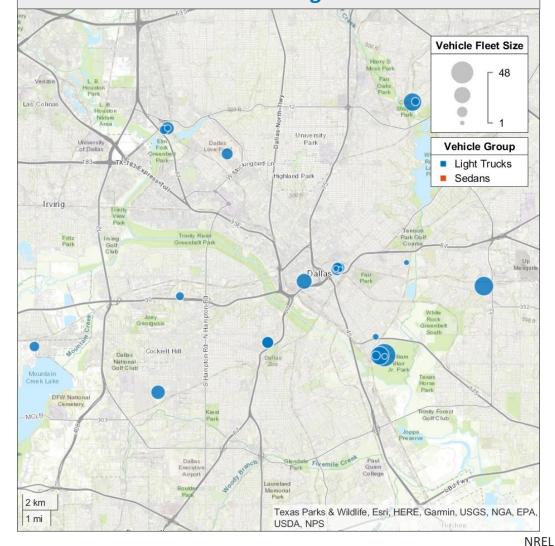
- Map shows fuel island locations and all parking locations listed in Dallas vehicle inventory
- Separated DPD vehicle locations from non-DPD locations
- Identified locations with 5 or more vehicles, for class 1 and for class 2

Purple pins – Fueling locations
Blue pins – DPD parking locations
Orange pins – all non-DPD parking locations
Gray pins – other parking (need additional info)

Parking Locations – Sedans & Light Trucks



Locations with light trucks



VICE Model Primary Inputs – Scenario 1



2022 Honda Civic	LX (base model)
MSRP [\$]	\$23,365
Fuel efficiency [mpg]	34



2022 Nissan Leaf	S (base model)	S Plus (upgrade)
MSRP [\$]	\$28,425	\$33,425
ESS [kWh]	40	62
Range [mi]	149	226
Fuel efficiency [kWh/mi]	0.268	0.274
MPGe	112	104

https://www.caranddriver.com/honda/civic https://www.caranddriver.com/nissan/leaf

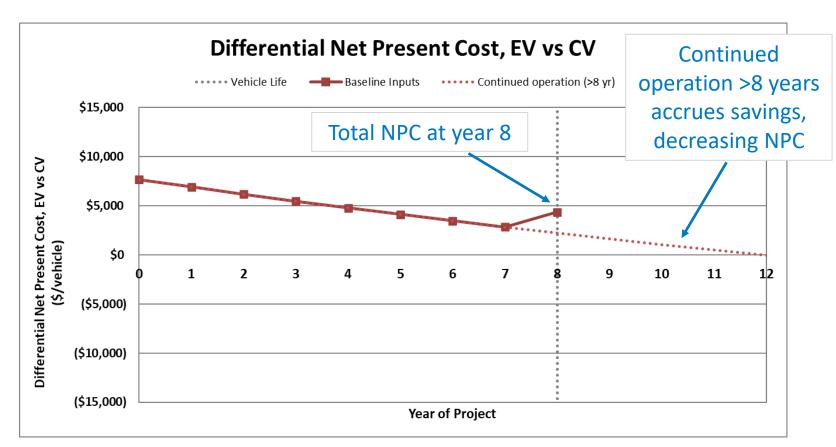
VICE Model Results – Scenario 1 (sedans)

"Baseline" inputs

- EV cost = \$28,425 ea.
- EVSE cost = \$3,000 ea.
- Rebates = \$0
- Annual VMT = 6,382 mi
- Gas price = \$2.36/gal

Key Points from baseline analysis:

- EV+EVSE upfront investment is ~\$8k more than base sedan
- Total net present cost at end of expected life (year 8) = \$4,345 per vehicle (additional cost for EV option)
- Current projections for EV end-of-life salvage value are lower than for conventional vehicle (net incremental cost)
- EV operation beyond year 8 continues to accrue savings





Electric Vehicle

2022 Nissan Leaf S



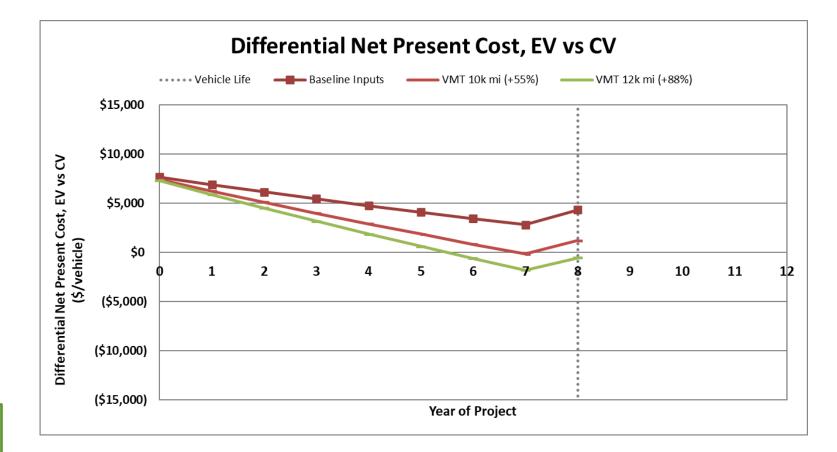
Conventional Vehicle 2022 Honda Civic LX

VICE Model Results – Scenario 1 (sedans)

Impact of annual vehicle miles traveled (VMT)

- Baseline VMT = 6,382 mi
 ~ 24.5 miles/day
- VMT 10k mi represents approx. 55% increase
 ~ 38.5 miles/day
- VMT 12k mi represents approx. 88% increase
 ~ 46 miles/day

Takeaway: Operational savings accumulate faster when replacing vehicles that are driven more (well within estimated Nissan Leaf S range of 149 miles)





Electric Vehicle 2022 Nissan Leaf S

Conventional Vehicle 2022 Honda Civic LX

VICE Model Primary Inputs – Scenario 2



2022 Ford F-150	XL (base model)
MSRP [\$]	\$31,685
Fuel efficiency [mpg]	18



2022 Ford F-150 Lightning	Pro (base model)	XLT (upgrade)
MSRP [\$]	\$41,669	\$54,669
ESS [kWh]	98	131
Range [mi]	230	300
Fuel efficiency [kWh/mi]	0.426	0.437
MPGe	70	69

VICE Model Results – Scenario 2 (trucks)

"Baseline" inputs

- EV cost = \$41,669 ea.
- EVSE cost = \$3,000 ea.
- Rebates = \$0
- Annual VMT = 7.731 mi
- Gas price = \$2.36/gal

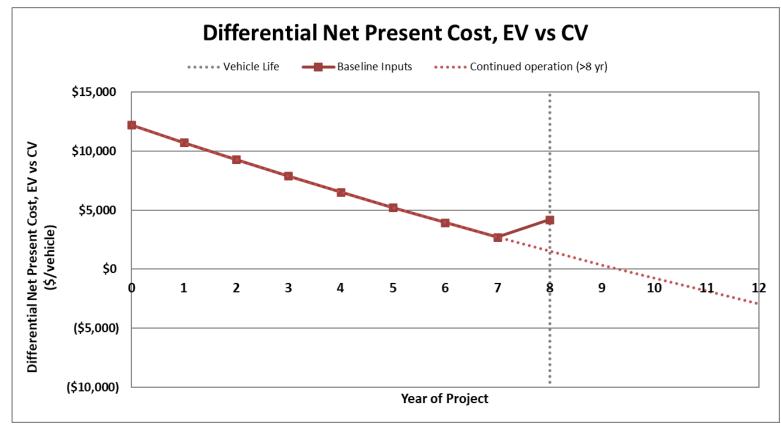
Key Points from baseline pickup analysis: EV+EVSE upfront investment is ~\$13k more

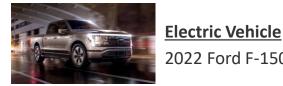
than base Conventional Pickup

Total net present cost at end of expected life (year 8) = \$4,202 per vehicle (additional cost for EV option)

Current projections for EV end-of-life salvage value are lower than for conventional vehicle (net incremental cost)

Vehicle operation beyond year 8 continues to accrue savings





2022 Ford F-150 Lightning



Conventional Vehicle

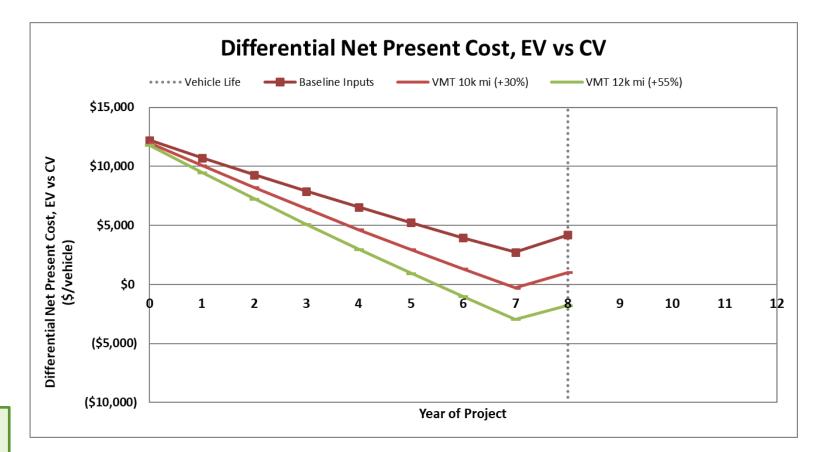
2022 Ford F-150

VICE Model Results – Scenario 2 (trucks)

Impact of annual vehicle miles traveled (VMT)

- Baseline VMT = 7,731 mi ~ 30 miles/day
- VMT 10k mi represents approx. 30% increase ~ 38.5 miles/day
- VMT 12k mi represents approx. 55% increase ~ 46 miles/day

Takeaway: Operational savings accumulate faster when vehicles are driven more (well within estimated *Ford F150 driving range of 230 miles)*





Electric Vehicle



Conventional Vehicle

2022 Ford F-150

Estimation of Cost per ton GHG Offset

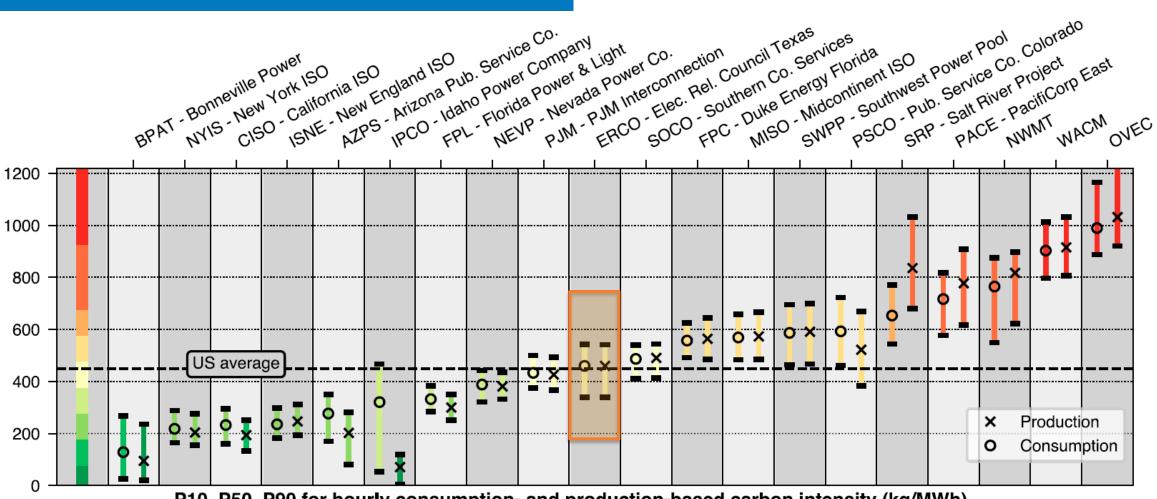
assuming <u>Texas electric grid mix</u>

Parameter	Units	Baseline Scenario 1 (sedans)	Baseline Scenario 2 (light trucks)	
VICE model total project cost per vehicle	\$/vehicle	4,345	4,202	
Lifetime emissions reduction (EV vs CV) per vehicle	metric ton CO ₂ e/vehicle	8.93	23.33	
Project cost per metric ton CO ₂ e to achieve lifetime emissions reduction	\$/metric ton CO ₂ e	486	180	

- The VICE model estimates that purchasing EVs instead of CVs could reduce GHG emissions by
 - 8.93 metric tons CO₂e per light-duty sedan over an eight-year expected lifetime
 - 23.33 metric tons CO₂e per light-duty pickup truck over an eight-year expected lifetime
- Based on the per-vehicle lifetime costs baseline assumptions, GHG emissions reductions are estimated to be
 - \$486 per metric ton CO₂e for the light-duty sedan scenario
 - \$180 per metric ton CO_2 e for the light-duty pickup truck scenario
- Any improvement in EV cost will lower the cost to achieve GHG reductions
 - Achieving EV <u>cost parity</u> (through grants or other means discuss previously) results in GHG emissions savings estimated above at no additional cost

GHG Emissions Estimates

Carbon intensity of Texas electricity grid (ERCO) is very similar to US average, per 2016 analyzed data¹



P10, P50, P90 for hourly consumption- and production-based carbon intensity (kg/MWh)



Fleet Electrification Study Update

Environment and Sustainability Committee August 1, 2022

Donzell Gipson, Director Equipment and Fleet Management City of Dallas

Vincent Olsen, Assistant Director Equipment and Fleet Management City of Dallas

Presentation Overview

- Background/History
- Purpose
- Issues/ Operational or Business Concerns
 - Consultant Recommendations
 - Action Plan Update
- Strategies for EV Conversion and Deployment
- Future policy and operational decisions impacting fleet management



Background/History



Electrification of Fleet Assets

In support of CECAP adoption, an amendment approved in the FY2021 Budget provided funds for an electric vehicle feasibility study (\$100k)

- On May 26, 2021, the City Council awarded a contract to the National Renewable Energy Laboratory (NREL) to conduct the study.
- NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy. The Alliance for Sustainable Energy LLC., operates the NREL Laboratory.
- The study allows the City to develop the most effective and efficient policies and operational strategies for deployment and sustainment of electric vehicle technology in alignment with CECAP.



Background/History



Timeline:

- City Council Budget Amendment September 2020
- Contract award to NREL May 2021
- Study Kickoff August 2021
- Briefed EVNS Committee in January 2022
- Briefed Environmental Commission in June 2022



Purpose



This briefing will:

- Provide an update on the EV study in response to NREL recommendations
- Provide a summary of activities in preparation for EV conversion
- Next steps



NREL Recommendations – Summary



• Implement VICE Model approach for each purchase decision

• Continue to test new technologies

• Benchmark from other agencies



Issues/Operational Concerns



Operational Concerns to address

- Develop Business Model/Policy
- Determine & Validate Vehicles for Conversion
- Install EV Infrastructure
- Purchase EV Vehicles
- Deploy & Monitor EV Vehicles (GPS install)
- EV Maintenance (in-house and third party)

Issues to Address:

- Range Anxiety/Fueling Accessibility
- Educate Operators
- Parking/Site Plan
- Reduce the total number of vehicles
- Greenhouse gas reductions



Strategies for EV Conversion and Deployment



Outline of EV Conversion and Deployment Strategies

- EV Infrastructure Funding Strategies
- EV Infrastructure Operations and Maintenance
- EV Vehicle Funding Strategies
- EV Conversion Selection Strategy with End Users
- Review for Replacement Electric Vehicles
- Electric Vehicle Make and Model Strategy
- Electric Vehicle End User Migration Strategy
 - Motor Pool as EV Migration Strategy





EV Infrastructure Funding Strategies



Approved EV Charging Infrastructure Funding

Funding Source	Amount	Install/Equipment	Location
NCTCOG - Call for Projects	\$ 193,676.00	(2) DCFC Stations	SE Service Center
NCTCOG - Call for Projects	\$ 182,658.00	(2) DCFC Stations	Central Service Center
FY22-23 Proposed Budget	\$ 581,027.00	Level II & DCFC Stations	(various - citywide)
Total	\$ 957,361.00		

Submitted Grant Applications for EV Charging Infrastructure Funding

Funding Source	Am	nount Requested	Install/Equipment	Location	
				SW, NE, NW, - Service Ctr	
TCEQ	\$	338,932.36	(7) DCFC Stations	Jack Evans	
				CE, SW, NE, NW, SW, - Service Ctr	
TCEQ	\$	124,785.00	(30) Level II Chargers	Jack Evans	
Total*	\$	463,717.36	*Projects total \$927,434.71 (requires 50% cash)		



EV Infrastructure Operations and Maintenance

Turn-Key Strategy

Use a third-party supplier(s) to design, install, operate and maintain the City's EV infrastructure

- Telematics (software to provide fleet management data)
- Standardization
- Infrastructure that supports any vehicle make
- Opportunity for long-term partnership with proven supplier



EV Vehicle Funding Strategies



VICE Model Strategy

The City will annually evaluate replacement eligible vehicles that meet the EV conversion criteria and examine them within the VICE Model. (use existing fleet replacement budget)

The City will apply for grants that will offset capital outlay and align with the VICE Model.

Examples include:

Grant Opportunities for EV Vehicles				
Funding Source Description				
NCTCOG - Call for Projects	Grant pays for approximately 25-50% cost of vehicle purchases			
TCEQ – TERP and VW	Grant pays for approximately 25-50% cost of vehicle purchases			



EV Conversion Selection Strategy with End Users



Currently 500+ vehicles meet the initial study eligibility; however, only 76 are under consideration by departments for replacement

A decision tree or rubric will be used to determine/validate conversion of the 76 vehicles under initial review

Considerations	Concern/Comments
Replacement Eligible	Develop multi-year strategy as eligible vehicles become due for replacement
Request for replacement by End User	Policy to include use evaluation
Align with VICE Model	EV Study estimated \$4,202-\$4,375 gap between conventional and EV vehicle
Stakeholder Involvement	Executive Steering Committee (includes NCTCOG) Infrastructure Committee (includes TXU & Oncor) Education and Operator training (includes potential partnership with Tesla)
Charging Infrastructure Accessible	Logistics in timing, location, and demand
Validate Exceptions	Extended periods of Idling, significant energy consumption at job site
Green House Gases	Document emissions reductions

Review for Replacement – Electric Vehicles Customer Department Engagement



Equipment and Fleet Management began meeting with departments in July 2022 to discuss the results of the Fleet Electrification study. Also, to evaluate the 76 vehicles under consideration for conversion.

NREL Recommendations:

Department Request Breakdown						
Department	Total Vehicles	Sedan	SUV	Light Truck	Van	Other
Building Services	7	2	0	2	3	0
Code Compliance Services	23	0	14	6	0	3
Public Works	15	0	1	13	0	1
Park and Recreation	12	0	1	2	6	3
Transportation	19	9	1	8	0	1
Total	76	11	17	31	9	8



Electric Vehicle Make and Model Strategy EV Purchases

The City needs a mix of sedans, sport utility vehicles (SUV) and light duty trucks to conduct operations for successful service delivery.

Recommendations:

EV Vehicles						
Vehicle Type Choices	Make/Model	Fueling	Mile Range			
Sedan	Nissan Leaf	100% BEV	149-226			
SUV	Ford Escape Plug-In Hybrid	Gas/Electric	520 (37-38 electricity)			
Light Duty Truck	Ford F-150 Lighting	100% BEV	230			





Electric Vehicle End User Migration Strategy EV Education and Awareness

The City needs to educate and inform end users on the safe use and operation of these vehicles to include the benefits to service delivery. Training of mechanics on EV maintenance will also be an important part of the migration strategy.

Recommendations:

EV Vehicles	
Plan	Comments
Ride and Drive Program	Allow end users to test drive Nissan Leaf, Ford Escape Plug-In Hybrid, and F-150 Lighting
Environmental Education	Benefits to the environment, efficiency, and life-time costs
EV Maintenance	Enhance existing training program and use third party suppliers
Pooling of Resources	Discuss the benefits of sharing vehicles to optimize use and reduce costs



Motor Pool as an EV Conversion Strategy

Assess "Admin" vehicles at each Service Center or Co-located parking of City fleet

- Evaluate use and examine for fleet reductions
- Convert remaining selection to EV
- Centralize the parking of these assets
- Use Key Valet structure for end user access to vehicles
- Monitor utilization via GPS





Future Policy & Operational Decisions



Demonstrations of EV



Until operational needs and electrification options align within public safety and heavy-duty vehicles and equipment, hybrid and compressed natural gas technologies are the prudent alternatives.

Electrification options and alternatives

- Mack Refuse EV Truck One week pilot being planned for Sanitation Services
 - (Grant awarded for \$776k CNG) Clean Diesel Grant NCTCOG
- Ford Explorer Hybrids Police Patrol (purchased 11 and anticipated to go into service within the next 90 days)
- Ford EV cargo van pilot Offered a trial period by local dealer
- San Antonio and Dallas County "Learn from them"

Observation of EV Experiences



EFM will continue to monitor, research and benchmark the experiences, breakthroughs and lessons learned that impact the City's EV conversion plans.

Recent Articles & Big Picture Items:

• Electric Grid concerns

City of Waco pauses on transition of EV for its Police Department

• <u>www.wacotrib.com/news/local/govt-and-politics/waco-city-council-to-vote-on-hybrid-police-cars-citing-issues-with-electric-models/article_39d1236a-ffd8-11ec-b3a3-037cd043bd1e.html</u>

San Antonio Police testing Tesla, Ford electric cars for official use

• <u>www.mysanantonio.com/business/article/San-Antonio-police-Tesla-ford-electric-cars-17261776.php</u>

Dallas County officials look to electric vehicles for help

• <u>https://www.keranews.org/government/2022-04-25/bad-air-climate-change-dallas-county-officials-look-to-electric-vehicles-for-help</u>



Next Steps



- Continue work on action plan in response to consultant recommendations
- Continue to brief ENVS Committee on status of action plan
- Document Council feedback for development of future policy and operational plans
- Continue to look at emerging technologies like hydrogen and renewable natural gas to enhance the City's alternative fuel infrastructure





Fleet Electrification Study Update

Environment and Sustainability Committee August 1, 2022

Donzell Gipson, Director Equipment and Fleet Management City of Dallas

Vincent Olsen, Assistant Director Equipment and Fleet Management City of Dallas



City of Dallas

Agenda Information Sheet

File #: 22-1614

Item #: C.

Gas-Powered Landscape Equipment Policies [Susan Alvarez, Assistant Director, Office of Environmental Quality & Sustainability]

GAS-POWERED LANDSCAPE EQUIPMENT POLICIES

Environment & Sustainability Committee

August 1, 2022

Susan Alvarez, P.E. Assistant Director Office of Environmental Quality and Sustainability

City of Dallas

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OVERVIEW

- Update from December 01, 2021 ENVS Briefing
- Park Board Information
- Environmental Health Committee Recommendations
- Impacts of Change
 - Environmental
 - Equity
 - Fiscal
- Policy Options



TIMELINE to DATE



Staff Research/ Stakeholder Engagement





Types of Leaf Blowers

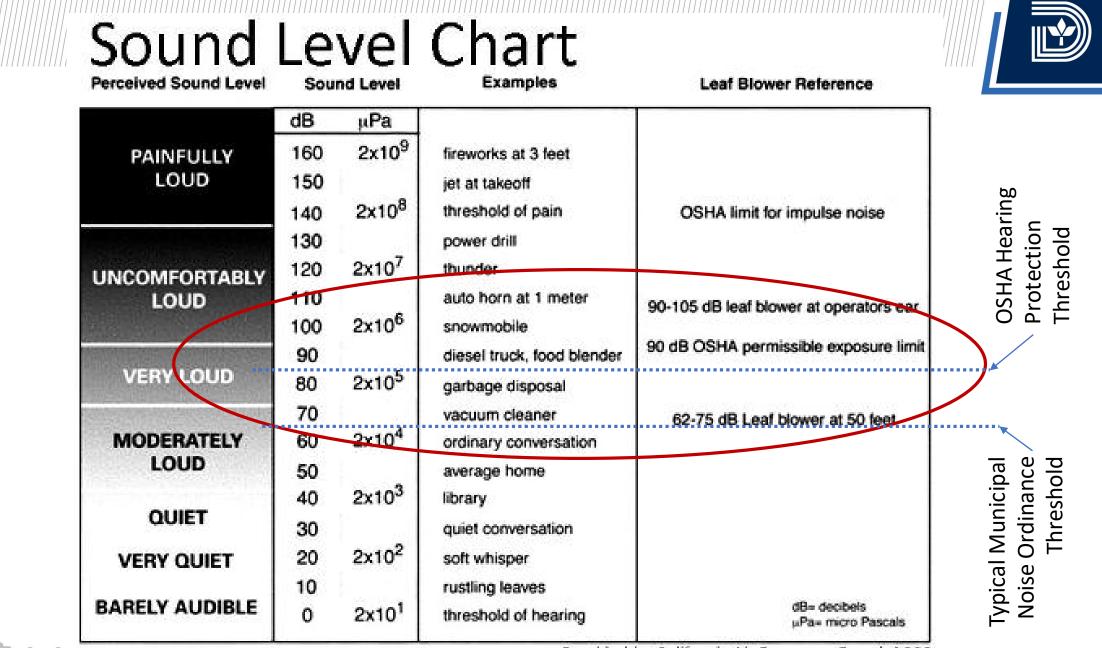


	Prima	ry Use		Material Moved	Operating	Weight	Cost Range
Type of Equipment	Comm'l	Resid'l	Windspeed	(CFM)**	Noise (dB)	Range (lbs)	(2021 \$)
*Gas-powered Hand-held	Х	Х	>180 MPH	400-450	73-100	9-12	~\$100 - 200
Backpack	Х		~200 MPH	910-940	75-125	23-26	~\$300 - 550
- Battery Electric Handheld		Х	110-165 MPH	530-580	64	8-9	\$150 - 200
Backpack	Х		145 MPH	600	64	13-20	\$400 - 1,200
Data Sources: https://www.protoolreviews.com/gas-vs-hattery-powered-leaf-blowers/							

Data Sources: https://www.protoolreviews.com/gas-vs-battery-powered-leaf-blowers| https://www.popularmechanics.com/home/tools/g37442980/best-gas-leaf-blowers/

* Gas-powered data reflects more commonly used 2-stroke motor **CFM= Cubic Feet /Minute





Provided by California Air Resources Board, 2000

Dallas Park & Recreation Overview

- ~2,600 pieces of small equipment
 - ~530 Leaf Blowers
- Majority of small equipment is 4cycle
 - Use gasoline and oil mixture
 - Comply with the California Act Resource Board (CARB) regulations
- Small number of 2-cycle equipment that are specialized and used only a few times a year







Dallas Park & Recreation Green Strike Teams

- Piloting Green Strike Teams for two districts
 - Use electric (lithium battery-powered) hand-held landscaping equipment
 - Blowers, line trimmers, hedge trimmer, small chainsaw and pole saw
- Strike Teams have 3 men crews
- District 1 maintains the area around White Rock Lake; areas are maintained on a twoweek schedule
- District 3 maintains parks in the downtown area; each park is maintained once a week





Dallas Park & Recreation Pilot Results

District 1 – White Rock Lake

- Electric Equipment not sufficient
 - Not powerful enough to maintain growth after two weeks
 - Slowed down rate of work

Employee buy-in was low

- Batteries are heavy
- Equipment is less powerful
- Prefer gas powered equipment

District 3 – Downtown

- Using equipment for three years
 - Operating well
 - Batteries lasted as long as they should
 - Quality of work is good
 - Reliable
 - No repair cost, only cost to replace batteries
- Significant emissions savings



Dallas Park & Recreation Pilot Results



Emissions Savings of Green Strike Teams

Based on Operating Equivalent Gas-Powered Equipment

Туре	Model	Fuel Type	Units	Use	Annual Use (hrs)	HC Emissions (lb/yr)	NOX Emissions (lb/yr)	CO2 Emissions (T/yr)
Blower (Large)	BR600	4-Cycle Gas	1	3 hrs/day	540	37.91	27.82	9.61
Handheld blower (small)	BG86	4-Cycle Gas	1	3 hrs/day	540	10.67	7.83	2.71
Line trimmer	FS131	4-Cycle Gas	3	6 hrs/day	1,080	113.73	83.47	28.84
Chainsaw	MS170	4-Cycle Gas	1	3 times per year for 6 hrs each use	18	0.67	0.49	0.17
Hedgetrimmer	HL91K	4-Cycle Gas	1	4 times per year for 6 hrs each use	24	0.53	0.39	0.13
Pole Saw	HT103	4-Cycle Gas	1	3 times per year for 6 hrs each usein Fall	18	0.47	0.34	0.12
Total Annual Emissions 163.98 lbs 120.34 lbs 41.58 tons								



Dallas Park & Recreation Future Efforts

- Increase employee buy-in through communication of the benefits of reduced emissions, less noise, and health benefits
- Conduct a side-by-side comparison of fuel powered equipment versus new electric equipment since technology has advanced in the last three years
- Add Green Strike Teams to Park Maintenance Districts with parks that have a weekly maintenance schedule and moderate grass/vegetation growth
- Funding/grant for an electric Zero-Turn mower for District 3, downtown parks that will further reduce emissions

Mower	Model	Fuel Type	Units				NOX Emissions (lb/yr)	CO2 Emissions (T/yr)
Scag – Zero Turn	STTII-72-31KB/DF	3 - cylinder duel fuel	1	5	900	161.77	97.80	130.71

Conclusion: Electric equipment was successfully used for the maintenance of some parks but not all parks



EVC – Environmental Health Committee

"The committee recommends that the Environmental Commission support a phased transition from gas-powered landscaping equipment to battery-operated or electrichybrid equipment to reduce particulate matter and other pollutants that affect health and contribute to poor air quality."

- Candace Thompson, Chair

Memorandum to the Environmental Commission, June 8, 2022



Leaf Blower Impacts on Air Quality



- 1.2 billion gallons of gas are burned per year by United States garden equipment.
- About 1/3 of this material is discharged as aerosols during equipment use.
- Leaf blowers emit pollution levels comparable to automobiles⁽¹⁾
- A 2011 test by the car experts at Edmunds showed that "<u>a consumer-grade leaf</u> <u>blower emits more pollutants than a 6,200-pound 2011 Ford F-150 SVT Raptor</u>. (1)(4)
- The two-stroke engine (in the Edmunds study) emitted nearly 299 times the hydrocarbons of the pickup truck and 93 times the hydrocarbons of the sedan.
- Leaf blowers emit carbon monoxide and nitrogen oxides. ⁽¹⁾ Nitrogen oxides are precursors to ground level ozone; North Texas is in Severe Non-Attainment status.
- Switching to electric (battery or plug in) leaf blowers would sharply reduce air pollution⁽¹⁾



Leaf Blower Impacts on Public Health

- Children and the elderly are especially vulnerable to the dust (particulate) and toxic emissions from leaf blowers
- Manufacturers recommend a 50 feet minimum safe distance for bystanders.
- The low frequency noise from leaf blowers can penetrate most barriers such as walls. This contributes to hearing loss for adjacent residents.
- In densely populated neighborhoods, a gas blower can affect up to 15 times the number of households as an electric leaf blower.
- Equity impacts can be associated with both the use, and the potential transition away from using two-stroke landscape equipment.







Potential Impacts of Change: Environmental



Estimated Probable Reductions in GHG Emissions

			Reduction in	Reduction in
Municipal Equipment	#Gas	#Electric	#CO2e/Unit/Year	MTCO2e/Year
Push Mowers	2,400		25	30
Ride-on Mowers	980	1	131	64
Handheld Blowers	189	19	5,420	512
Back Pack Blowers	245		19,220	2,354
Line Trimmers/ Edgers	594	14	28,950	8,598
Hedge/ Pole Trimmers	299	21	260	39
Chain Saws	395	17	340	67
MISC	323	14	240	39
			Total:	11,665
			Reduction in	
Community Equipment	#Gas	#Electric	CO2e/Unit/Year	Reduction in CO2e/Year
Push Mowers	117,100	70,260	25	1,464
Ride-on Mowers	3,407	75.7	131	223
Handheld Blowers	63,725	59,125	5,420	172,695
Back Pack Blowers	6,813	757	19,220	65,473
Line Trimmers	6,813	757	28,950	98,618
Pole Trimmers	776.25	86.25	260	101
Chain Saws	776.25	86.25	240	93
			Total:	338,666

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Potential Impacts of Change: Fiscal



ſ	Municipal Equipment`	#Gas		Cost/Unit		Conversion Cost	
	Push Mowers	2,400	\$	400	\$	960,000	
	Ride-on Mowers	980	\$	5,000	\$	4,900,000	<u>Es</u> Pr
	Handheld Blowers	189	\$	300	\$	56,700	Pr
	Back Pack Blowers	245	\$	600	\$	147,000	In
	Line Trimmers/ Edgers	594	\$	250	\$	148,500	As
	Hedge/ Pole Trimmers	299	\$	450	\$	134,550	
	Chain Saws	395	\$	450	\$	177,750	Сс
	MISC	323	\$	350	\$	113,050	
				Total:	\$	6,525,000	
	Community Equipment	#Gas		Rebate	Im	plementation Cost	
	Push Mowers		46,840	250		11,710,000	
	Ride-on Mowers		1,363	2500		3,406,500	
	Handheld Blowers		25,490	2500		6,372,500	
	Back Pack Blowers		2,725	300		817,560	
	Line Trimmers		2,725	200		545,040	
	Pole Trimmers		310.5	200		62,100	
	Chain Saws		310.5	200		62,100	
	Chain Saws		510.5	Total:		22,976,000	-
				10(01)	Y		

<u>Estimated</u> Probable Cost Impacts Associated with Conversion

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Impacts of Change: Equity





- Most landscapers using gas-powered lawn care equipment are subject to exposures to toxic gas & oil, carcinogenic emissions, noxious exhaust, and unsafe noise levels.
- Most lawn crews are unprotected and work full-time at the source of emissions and noise. Workers have few options and little agency. ⁽⁵⁾ Failure to act continues this legacy.
- Between 2002 and 2016, the number of professional ground maintenance workers, including supervisors, grew by 85 percent to 1.6 million, according to Quiet Communities.⁽⁶⁾
- A large portion of landscape workers are Hispanic⁷.
- In 2021 the average annual income for landscape workers was \$30,160 and the average hourly wage was \$14.50 an hour⁽⁸⁾
- Any movement towards reducing or eliminating gaspowered leaf blowers in Dallas will need to address equity considerations related to potential impacts to local landscape crews.

Related City of Dallas Codes and Ordinances:



- Does not directly ban gas-powered lawn equipment....
- Stormwater Ordinance: Section 19-118.2(f)(5) of the Dallas City Code prohibits discharge of garbage, rubbish and yard waste into the storm drain with fines of up to \$2,000 per occurrence.
- **Code enforcement:** Chapter 30 and Chapter 51A-6.102 for noise violations. 51A-6.102 regulates noise by decibel level. These regulations have maximum decibel thresholds that change dependent on the property zoning.

(F) <u>Exceptions</u>: the following activities, as long as they are conducted between the hours of 7:00 AM. – 10:00 PM., M-F and between 8:00 AM. and 7:00 PM – weekends and holidays:

i) <mark>Lawn maintenance</mark>.

(1) A person may not conduct a use that creates a noise level that exceeds the levels established in Subsections (b) through (e) or that exceeds the background level by five dB(A), whichever is greater.

B(A), which even is greater.	
Decibel Limit	A Scale
(dBA re 0.0002 Microbar)	56
Aaximum Permissible Daytime Decibel ounding Lot Line of an Office, Retail, N commercial, P(A), WR with a Shopfron District	/lixed Use, Multiple
Decibel Limit	A Scale
(dBA re 0.0002 Microbar)	63
Maximum Permissible Daytim Bounding Lot Line of a Use i	
Decibel Limit	A Scale
(dBA re 0.0002 Microbar)	65
Aaximum Permissible Daytime Decibel ounding Lot Line of a Use in the IM Dis	405

Common Approaches in Use/Dallas Options:





- Bans on gas-powered lawn equipment: some are complete bans; some are partial bans related to towards blowers and mowers.
- California implemented state-wide policy in 2018 promoting "sale and use of emissions free landscape equipment after July 1, 2022" and relied on local Air Boards to implement local action; rather than "a ban".
- Most cities address equity challenges through equipment exchanges, rebates and incentives;
- Some cities worked with local merchants /landscape professionals to develop and implement program.
- Many programs included an implementation time lapse of 6 months to 2 years between ordinance adoption and the date for enforcement, to allow for: budgeting, public education, exchange/replacement activities, and training.
- Many worked with local landscape equipment stakeholders towards conversion.

Sustainable Procurement Policy



Sustainable Procurement Policy adopted by City Council through CR 21-098 in May 26, 2021 to guide City procurement decisions that positively impact the City's social, economic, and environmental health.

- Working group formed to:
 - maintain an environmentally preferred products lists,
 - identify sustainability labels and standards for specifications,
 - analyze citywide purchases for efficiency and waste reduction opportunities,
 - and make other recommendations related to the social, economic, and environmental aspects of contracting.
- These measures have been incorporated into AD4-05, and apply to current efforts related to landscape equipment.



Sustainable Procurement Actions



Citywide Landscaping /Landscape equipment contracts:

- <u>Landscape Equipment Contract</u> used by 12 departments; includes options for electric, battery-electric and two-stroke equipment including a variety of mowers, string-trimmers, leaf blowers and other ancillary equipment. The City expends approximately **\$135,000 per year** for this equipment.
- <u>Landscaping Services Contract</u> 11 current contracts for landscape services, that are used by 19 departments. These contracts rely primarily on traditional gas-powered equipment. The City expends approximately \$1.2 million per year for these services.
- Landscape Services Procurement (underway): Advertised in January 22, 2022; includes options for gas- and non-gas powered equipment line items:
 - 15 City properties identified for electric equipment pilot.
 - 2 contracts totaling about \$32.3M, are on the draft September 14, 2022 City Council Agenda.







Questions or Comments?



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²⁰Blumenstiel, Alexander D. Gasoline Engine Leaf Blower Health Hazards, Environmental Harm, Legislation and Alternatives For the White House Environmental Justice Advisory Council, Ph.D. December 7, 2021. EPA-HQ-OA-2021-0683-0049. <u>https://www.regulations.gov/document/EPA-HQ-OA-2021-0683-0049</u>

²¹Report on Bill 22-234, "Leaf Blower Regulation Amendment Act of 2018", Washington, DC, <u>http://chairmanmendelson.com/wp-content/uploads/2018/10/B22-234-Leaf-Blower-Regulation-Amendment-Act-of-</u> <u>2018-CIRCULATION-PACKET.pdf</u>

²²Assembly Bill Report on Bill 22-234, "Leaf Blower Regulation Amendment Act of 2018", State of California. <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1346</u>



Cities With Leaf Blower Restrictions



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Arlington, MA	Lawndale, CA	Santa Monica, CA		
Aspen, CO	Los Altos, CA	Scarsdale, NY		
Belvedere, CA	Los Angeles, CA	Scottsdale, AZ		
Berkeley, CA	Malibu, CA	Sunnyvale, CA		
Beverly Hills, CA	Mamaroneck, NY	Tampa, FL		
Boulder, CO	Maplewood, NJ	Tiburon, CA		
Brookline, MA	Menlo Park, CA	Toronto, ON		
Cambridge, MA	Mill Valley, CA	San Antonio, TX		
Carmel, CA (banned in 1975 – first city in the USA)	Montclair, NJ	Sunnyvale, CA		
Claremont, CA	New Rochelle, NY	Tampa, FL		
Del Mar, CA	Oyster Bay, NY	Tiburon, CA		
Dobbs Ferry, NY	Palm Beach, FL	Toronto, ON		
Evanston, IL	Los Altos, CA	Vancouver BC		
Foster City, CA	Palo Alto, CA	Washington, DC		
Framingham, MA	Pelham Manor, NY	Westchester County, NY		
Hastings, NY	Pelham, NY	West Hollywood, CA		
Honolulu, HI	Portland, OR	White Plains, NY		
Houston, TX	Portsmouth, NH	Winnetka, IL		
Indian Wells, CA	Rye, NY	Yonkers, NY		
Laguna Beach, CA	Santa Barbara, CA	(Highland Park, TX – under consideration)		





GAS-POWERED LANDSCAPE EQUIPMENT POLICIES

Environment & Sustainability Committee

August 1, 2022

Susan Alvarez, P.E. Assistant Director Office of Environmental Quality and Sustainability





Agenda Information Sheet

File #: 22-1615

Item #: D.

Environmental Commission Update [Kathryn Bazan, Chair, Environmental Commission]



City of Dallas

Agenda Information Sheet

File #: 22-1616

Item #: E.

Bachman Lake Dredging Update

Terry Lowery, Director, Dallas Water Utility; Matthew Penk, Assistant Director, Dallas Water Utility; Marc Cottingame, Engineering Program Administrator, Dallas Water Utility

Memorandum

CITY OF DALLAS

DATE July 25, 2022

¹⁰ Honorable Chair and Members of the Environment & Sustainability Committee

SUBJECT Bachman Lake Dredging Update

In 2016, City Council authorized a feasibility study that yielded three alternatives for Bachman Lake. A Task Force made up of City staff and council district appointed representatives evaluated the alternatives and recommended to "Maintain the Lake." This recommendation was briefed to the Mobility Solutions, Infrastructure and Sustainability Committee on April 8, 2019, who voted to approve the recommendation. Dredging improvements were bid in June 2021 and a construction contract was awarded to Renda Environmental, Inc. on October 27, 2021.

The contractor began removing debris from the lake in February 2022 and initiated hydraulic dredging in June. Approximately 400 tons of debris has been removed from the lake and shoreline as the contractor is encountering large amounts of trash and plastic bags. The dredge barge is working eastward toward the narrow area of the lake where deposits are thickest, and islands of sediment have formed. Dredged material is screened and dewatered before being hauled for disposal. The Contractor is hauling the material to privately owned land to dry, test, and mix with native soil to produce a potential low-cost product for public use. If successful, this effort will eliminate disposal of the dredged material in local landfills.

The contractor's staging area is located at the Bachman Lake parking lot off Shorecrest Drive and the dewatering site is located on City of Dallas property between Denton Drive and Harry Hines Boulevard. Water removed from the dredged silt is clarified and pumped back into Bachman Lake.

The project is anticipated to take about 12 months to complete and will remove approximately 370,000 cubic yards of accumulated sediment. Sediment removal will restore the lake to recreational levels and prevent invasive vegetation, improving water quality. Park users have been advised to keep clear of the barge and floating pipe during the project. The latest information on the Bachman Lake Dredging Project can be found on the project website at https://bachmanlakedam.com.

If you have any questions, please contact Terry Lowery, Director of Dallas Water Utilities.

Vintet Black

C:

Kimberly Bizor Tolbert Deputy City Manager

T.C. Broadnax, City Manager Chris Caso, City Attorney Mark Swann, City Auditor Bilierae Johnson, City Secretary Preston Robinson, Administrative Judge Jon Fortune, Deputy City Manager

Majed A. Al-Ghafry, Assistant City Manager M. Elizabeth (Liz) Cedillo-Pereira, Assistant City Manager Robert Perez, Assistant City Manager Carl Simpson, Assistant City Manager Jack Ireland, Chief Financial Officer Genesis D. Gavino, Chief of Staff to the City Manager Directors and Assistant Directors



Agenda Information Sheet

File #: 22-1618

Item #: F.

City Forestry Quarterly Update Carl Simpson, Assistant City Manager

Memorandum



DATE August 1, 2022

^{TO} Honorable Members of the Environment & Sustainability Committee: Paula Blackmon (Chair), Paul Ridley (Vice Chair), Carolyn King Arnold, Adam Bazaldua, Jaime Resendez, Jaynie Schultz, Chad West

SUBJECT City Forestry Quarterly Update

The City Forestry Taskforce (Forestry Taskforce) has been working on several initiatives since the June 6th Briefing to the Environment and Sustainability Committee meeting. This memo serves as an overview of actions taken during this time.

Partnering Sessions

The City met with multiple departments and our local, state, federal, and non-profit partners/stakeholders in June as part of our Quarterly Partnering Session. The focus of this meeting was to address the confirmation of the Emerald Ash Borer (EAB) within the City of Dallas, discuss upcoming planting activities for the fall, and to brainstorm ways to continue to diversify the tree canopy.

EAB discussions included an overview of the City's approach to assess and treat, and the development of education and outreach materials and videos for use by the City and others. All material produced by the City is reviewed and approved by the Texas A&M Forest Services (TFS) to ensure accurate and consistent messaging. Several non-profits have offered to distribute all materials to their members and volunteer groups, and to work with the private community of arborists and nurseries. The group discussed the ability of non-profits or non-municipal entities to provide funding assistance to residential property owners for treatment, removals, and potential replacement.

Emerald Ash Borer Update

Staff from various departments met with the TFS on site at Camp Broadway to observe the impact of EAB infestation five years after the initial confirmation. This visit provided an opportunity to review TFS outreach and education efforts, how to increase our partnerships, and explore the next steps. In conjunction with the TFS, the City will continue to assess and inventory the existing ash canopies on public property and treat when significant ash or grove of ash is present. TFS confirmed the approach and is encouraged by the number of actions taken by the City and is using our EAB Action Plan and planting plans as a template for other communities. However, TFS has stressed that it is important to recognize the long-term strategies as the EAB will likely be prevalent for the next decade and that planting new and diverse canopies is integral to the overall health of urban forests for future generations.

The staff has been assessing and inventorying the ash canopies in areas most at risk for infestation (Northwest, West, and Southeast) and will be moving strategically through the City over the next six months. To date, staff is primarily seeing weather-related damage to the ash population that will warrant additional follow-up assessments over time but has identified and will be treating certain significant ash trees over the next month in these areas. All work is inputted into Tree Keeper.

It has been determined that updates to Article X to address EAB will require Zoning Ordinance Advisory Committee (ZOAC), City Plan Commission (CPC), and City Council. This action is anticipated to occur in August for ZOAC, and September/October for CPC and City Council. The requested actions will:

- Modify the definitions of Class 3 tree and Unprotected tree to remove Arizona ash from Class 3 to Unprotected
- Amend acceptable plant materials to prohibit nursery stock ash trees from required landscaping and city property to allow for control of regulated landscaping and city tree species
- Amend Reforestation Fund definition of "natural deforestation event" to include invasive insect under Texas Department of Agriculture (TDA) determination to allow for providing trees to damaged private property
- Include the provision of defense to prosecution for vulnerable or threatened tree species as determined by the TDA to allow for removal of protected ash prior to infestation, as needed

Public Education and Outreach Efforts

Efforts to publicize and encourage residents and businesses to utilize the City Forestry website continue through our social media campaign, Council newsletters, and our public, private and non-profit partners. Over 2,200 people have viewed the website, which was soft launched in March 2022 and officially launched in May 2022.

Community meetings were held in July with interested residents to provide information on EAB by the City of Dallas. Several non-profit partners also held informational meetings with their members to provide an overview of EAB and instructions on how to tell if an ash tree is on your private property.

EAB water bill inserts have been prepared and will be in the August billing insert. In addition, the City's electronic billboard messaging contract includes an EAB message that will run during the next several months. Also, the website continues its updates with information for the general public.

City staff and TFS will participate in a series of filmed PSA and panel discussions on Urban Forestry and EAB in August for use on public channels, websites, and social media. The short PSAs will be a future One Dallas Update.

The City–Wide Forestry Technical Team will be conducting trainings with all Code Compliance staff to train them on EAB to better educate residents during community meetings and presentations. Also, the team will partner closely with CCS's Citizens Code Academy and the Community Clean Trash–Off program to increase messaging on EAB to residents.

Annual training's such as Park Maintenance, Arborist School and Community Forester Academy all include EAB training and updates.

Tree Assessments and Survey

City staff has completed training associated with Tree Keeper and has begun to utilize the assessment and inventory software as part of the daily activities related to inspections and inventory. Additionally, the Forestry Taskforce has been working with the Fund Development Unit in the Office of Government Affairs to seek funding opportunities for tree inventory and assessment of City of Dallas properties. Several options are being pursued, including a direct Congressional appropriation via a Community Project request in the House budget and grant opportunities.

Fall Planting Efforts

Branch Out Dallas, the program providing 2600 trees for residents in Dallas, is scheduled for Dallas Arbor Day on November 5, 2022. This program will be open for registration on September 1 and more information will be shared as we move closer to the overall program.

Branching Out Dallas, the program for public parks and open space has finalized the fall planting schedule will be planting 300 trees, and Texas Tree Foundation are in the planning stages for Cool School Program. As a reminder, the reforestation fund provides supports for these two programs and has provided 1700 trees in FY22 with a similar level of support in FY23.

c.

Carl Simpson Assistant City Manager, City of Dallas

Chris Caso, City Attorney Mark Swann, City Auditor Bilierae Johnson, City Secretary Preston Robinson, Administrative Judge Kimberly Bizor Tolbert, Deputy City Manager Jon Fortune, Deputy City Manager Majed A. Al-Ghafry, Assistant City Manager M. Elizabeth (Liz) Cedillo-Pereira, Assistant City Manager Robert Perez, Assistant City Manager Jack Ireland, Chief Financial Officer Genesis D. Gavino, Chief of Staff to the City Manager Directors and Assistant Directors



City of Dallas

Agenda Information Sheet

File #: 22-1642

Item #: G.

Environmental Justice Update

[Paul White II, Superintendent, Air, Soil, & Groundwater Division, Office of Environmental Quality & Sustainability; Lori Trulson, Senior Environmental Coordinator, Office of Environmental Quality & Sustainability]

Memorandum



DATE August 1, 2022

Honorable Members of the Environment & Sustainability Committee: Paula Blackmon (Chair), Paul Ridley (Vice Chair), Carolyn King Arnold, Adam Bazaldua, Jaime Resendez, Jaynie Schultz, Chad West

SUBJECT Environmental Justice Updates

The Office of Environmental Quality & Sustainability (OEQS) has previously provided information on work being done regarding several sites in Dallas that have produced environmental justice and community public health concerns. This memorandum will serve as a status update on several of these sites:

Former Blue Star Site

Recent activities at the former Blue Star property include the following:

- Surface soil screening was performed on May 6, 2022, to supplement prior investigative work and inform the placement of additional soil borings.
- Sixteen additional soil borings were completed on May 10, 2022, which confirmed no elevated lead concentrations in soil extended off-site to the north, east, or south.
- Oncor was contacted in June 2022 to allow additional investigation to the west.
- On July 11, 2022, five (5) additional soil borings were completed in the west adjacent Oncor right-of-way with none of these exceeding residential criteria of 500 mg/Kg.
- The assessment report is anticipated to be submitted to the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program in September 2022.

Lane Plating, U.S. Environmental Protection Agency (EPA) Superfund Site

The EPA is planning additional sampling near the Lane Plating Superfund Site. The plan is to install five additional monitoring wells for further characterization of the groundwater. Two of the proposed monitor-well locations are on City of Dallas property. The drilling will likely occur the week of September 12, 2022, and samples will be collected the following week.

Texas Vermiculite Facility Site

The former site of the Texas Vermiculite Facility may contain asbestos. The operator of that facility, W. R. Grace & Co.-Conn. (WR Grace), is working with the EPA to test for and remediate the presence of possible asbestos at the property and the surrounding area.

The WR Grace Texas Vermiculite plant operated from 1953-1992 and processed vermiculite, a mineral containing asbestos, into a variety of products including fire retardant and insulation materials. The plant was dismantled sometime during 2001 or 2002.

EPA sent out 30 access agreements for 60 properties. 40 agreements have been signed totaling 90% of the square footage within the study area. 38 properties have been sampled. The remaining two properties are on Oncor and Dallas, Garland & Northeastern (DGNO) Railroad properties.

The EPA attempted to obtain access agreements on several occasions:

- Three separate mailers were sent to the surrounding community on November 8, 2021, December 16, 2021, and February 28, 2022.
- Phone calls were made continuously on a weekly basis to property owners from November 8, 2021, through March 2, 2022.
- Two in-person visits were performed with support from Singleton United on March 2, 2022, and March 22, 2022.
- Three separate community meetings were held to solicit more people to sign access agreements. Two were virtual and one was in-person.

Soil samples were found at, or more than, soil clearance standard (asbestos >.25%) on seven (7) properties. Because these seven (7) properties exceed the standard, they will require soil removal followed by backfill with clean soil and sod. The EPA anticipates removal work beginning at the site in early September 2022 with a goal of completing all properties by November 2022. The EPA will continue to share information as it becomes available.

General Aniline & Film (GAF) Materials Corporation

Deputy Mayor Pro Tem Omar Narvaez and community members are having conversations with GAF related to their plans to vacate the site. Discussions are ongoing.

<u>Contacts</u>

If you have questions, or need additional information, please contact OEQS staff: Carlos Evans, Director, 214-670-1642 Paul White II, Superintendent – Air, Soil, and Groundwater Division, 214-948-4189 Lori Frauli Trulson, Senior Environmental Coordinator, 214-671-8967

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M. Elizabeth (Liz) Cedillo-Pereira, J.D. Assistant City Manager, City of Dallas

cc: T.C. Broadnax, City Manager Chris Caso, City Attorney Mark Swann, City Auditor Bilierae Johnson, City Secretary Preston Robinson, Administrative Judge Genesis Gavino, Chief of Staff to the City Manager Majed A. Al-Ghafry, Assistant City Manager Jon Fortune, Assistant City Manager Robert Perez, Assistant City Manager Dr. Eric A. Johnson, Chief of Economic Development and Neighborhood Services Jack Wade Ireland Jr., Chief Financial Officer Kimberly Tolbert, Deputy City Manager Directors and Assistant Directors



City of Dallas

Agenda Information Sheet

File #: 22-1643

Item #: H.

OEQS Environmental Legislative Priorities [Pharr Andrews, Senior Climate Coordinator, Office of Environmental Quality & Sustainability]

Memorandum



DATE August 1, 2022

Honorable Members of the Environment & Sustainability Committee: Paula Blackmon (Chair), Paul Ridley (Vice Chair), Carolyn King Arnold, Adam Bazaldua, Jaime Resendez, Jaynie Schultz, Chad West

SUBJECT OEQS Legislative Priorities

The 88th Session of the Texas Legislature will convene in January 2023 and many issues affecting local governments will be considered. This memorandum provides information on recommendations the Office of Environmental Quality and Sustainability submitted to the Office of Government Affairs for possible inclusion in the City of Dallas Legislative Program. Items included in the adopted legislative program will be submitted the Texas Legislature for their consideration.

As background, In May 2020, the City adopted the Comprehensive Environmental and Climate Action Plan (CECAP) that established the pathway to guide the city towards addressing climate and environmental risk with effective, equitable, and common-sense solutions. The CECAP has established a goal to reduce the City of Dallas greenhouse gas emissions by 43 percent by 2030 and 100% by 2050. The following recommended environmental legislative priorities support the actions in the City's CECAP:

- Support legislation related to batch plants that require, for example: buffers between the plant and neighborhoods; onsite air monitoring; controls on stacks; annual inspections.
- Support legislation related to grid improvements and distributed energy resources (e.g., battery, solar, wind).
- Supporting legislation related to climate and climate mitigation and adaptation actions.
- Supporting legislation that advances the use of electric vehicles and EV infrastructure.
- Supporting legislation that advances environmental justice, such as: incentives for infrastructure investment in populations disproportionately impacted by pollution; enhanced community engagement by State agencies; and fund an Office of Environmental Justice in the Office of the Public Interest Counsel.
- Support legislation that encourages the donation of pre-consumer edible food from food service vendors directly to those in need.
- Prevent the narrowing of the definition of State waters.

- Support legislation that expands public participation/community involvement in State decision-making processes.
- Support legislation that expands producer responsibility.
- Support legislation that advances the reduction of harmful greenhouse gas emissions.
- Support legislation that bans the disposal into landfills of certain recyclable and organic materials.
- Support legislation to update substandard home stock (e.g., weatherization, energy efficiency, health and safety upgrades).
- Support legislation that promotes clean energy job creation and training.
- Support legislation that bans single use food containers (e.g., polystyrene).
- Support legislation that ensures greater coordination between TCEQ departments when issuing permits.
- Support legislation that requires and incentivizes the recycling of certain construction, remodeling, and demolition debris.
- Support legislation that encourages the use of alternative modes of transportation.
- Support legislation that requires the incorporation of reusable and recyclable materials into municipal road construction and maintenance projects.
- Support legislation that encourages the pickup and delivery of food and organic waste from food service vendors for composting.
- Support legislation that allows per ton surcharges on materials disposed in landfills to fund a variety of waste reduction and diversion activities.

The Office of Government Affairs is currently reviewing recommendations from all City departments. An update on the City of Dallas Legislative Program will be presented to the Legislative Ad Hoc Committee August 2, 2022. The final program will be presented to the full Council during the first quarter of FY23. If you have questions, or need additional information, please contact Carlos Evans, OEQS Director (214-670-1642), Susan Alvarez, OEQS Assistant Director (214-671-9505) or Sr. Climate Coordinator, Pharr Andrews (214-670-3291).

ENVS Briefing Memo: OEQS Legislative Priorities August 1, 2022 Page | 3

M. Elizabeth (Liz) Cedillo-Pereira, J.D. Assistant City Manager, City of Dallas

cc: T.C. Broadnax, City Manager Chris Caso, City Attorney Mark Sw ann, City Auditor Bilierae Johnson, City Secretary Preston Robinson, Administrative Judge Genesis Gavino, Chief of Staff to the City Manager Majed A. Al-Ghafry, Assistant City Manager Jon Fortune, Assistant City Manager Robert Perez, Assistant City Manager Dr. Eric A. Johnson, Chief of Economic Development and Neighborhood Services Jack Wade Ireland, Jr, Chief Financial Officer Kimberly Tolbert, Deputy City Manager Directors and Assistant Directors



File #: 22-1619

Item #: I.

Environment & Sustainability Committee Priorities for Upcoming Fiscal Year



File #: 22-1590		Item #: 37.
STRATEGIC PRIORITY:	Environmental & Sustainability	
AGENDA DATE:	August 10, 2022	
COUNCIL DISTRICT(S):	All	
DEPARTMENT:	Office of Environmental Quality & Sustainability	
EXECUTIVE:	M. Elizabeth Cedillo-Pereira	

<u>SUBJECT</u>

Authorize (1) the acceptance of a grant from the Texas Commission on Environmental Quality (TCEQ) for the Air Pollution Compliance Program (Contract No. 582-23-40125) in the amount of \$2,525,585.00 to continue to provide investigation services and complaint response within the City of Dallas for the period September 1, 2022 through August 31, 2027; (2) the receipt and deposit of funds in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund; (3) the establishment of appropriations in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund; (4) a required local match in the amount of \$1,243,944.85 over the five year period; and (5) execution of the contract with TCEQ for the Air Pollution Compliance Program and all terms, conditions, and documents required by the agreement - Not to exceed \$3,769,529.85 - Financing: Texas Commission on Environmental Quality Grant Funds (\$2,525,585.00) and General Fund (\$1,243,944.85) (subject to annual appropriations)

BACKGROUND

Since 1967, the City of Dallas has worked with the Texas Commission on Environmental Quality (TCEQ) to support clean air monitoring and enforcement of air quality regulations through a set of annually renewed contracts for services.

Under this contract, TCEQ funds the City's Air Pollution Compliance Program. In the City's Air Pollution Compliance Program, City environmental specialists conduct periodic inspections and site visits to industries and business in Dallas that have the potential to emit pollutants, as defined in the Dallas City Code. These include manufacturing facilities, fueling stations, paint-and-body shops, and other industrial sites. The City's environmental specialists also respond to citizen complaints of odor, smoke or other airborne pollutants. Dallas residents receive enhanced service as a result of this program.

This action will authorize the acceptance of a grant from the TCEQ in an amount not to exceed \$2,525,585.00 over five years to continue the Air Pollution Compliance Program to provide investigation services and complaint response within the City of Dallas for the period September 1, 2012 to August 31, 2027. Under this contract, TCEQ reimburses 67 percent of the City's costs.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On August 22, 2018, City Council authorized Contract No. 582-19-90042 with the Texas Commission on Environmental Quality to accept state grant funds to continue the Air Pollution Compliance Program to provide investigation services and complaint responses, for a four-year period for the period September 1, 2018 through August 31, 2022, by Resolution No. 18-1137.

The Environmental Commission was briefed on the City of Dallas Regulated Air Quality Programs on February 11, 2022.

The Environment & Sustainability Committee was briefed on the "Regulatory Air Quality Program" and "Non-Regulatory Air Quality Programs" on March 7, 2022.

FISCAL INFORMATION

Fund	FY23	FY24	Future Years
Texas Commission on Environmental Quality Grant Funds	\$505,117.00	\$505,117.00	\$1,515,351.00
General Fund	\$248,788.97	\$248,788.97	\$ 746,366.91
Total	\$753,905.97	\$753,905.97	\$2,261,717.91

WHEREAS, there is a continuing need for the City of Dallas to provide investigation services and complaint responses within the City of Dallas; and

WHEREAS, the City of Dallas Office of Environmental Quality has been approved by the Texas Commission on Environmental Quality (TCEQ) to receive grant funds not to exceed \$2,525,585.00 per year to accomplish air pollution control investigations within the city of Dallas; and

WHEREAS, the total amount to be reimbursed under this agreement shall not exceed 67 percent of the City's total cost for its local air pollution program investigations; and

WHEREAS, the remaining 33 percent of the Air Pollution Compliance Program costs are to be funded by the City as matching funds, not to exceed \$1,243,944.85; and

WHEREAS, on August 22, 2018, City Council authorized Contract No. 582-19-90042 with the Texas Commission on Environmental Quality (TCEQ) to provide investigation services and complaint responses, for a four-year period for the period September 1, 2018 through August 31, 2022, with state grant funds, in an amount not to exceed \$2,020,468.00, by Resolution No. 18-1137; and

WHEREAS, it is now necessary to authorize a grant from the Texas Commission on Environmental Quality (Contract No. 582-23-40125) to accept state grant funds in an amount not to exceed \$2,525,585.00 to continue the Air Pollution Compliance Program to provide investigative services and complaint responses, for a five-year period September 1, 2022 through August 31, 2027, in an amount not to exceed \$2,525,585.00.

Now, Therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That the City Manager is hereby authorized to accept a grant from the Texas Commission on Environmental Quality (TCEQ) for the Local Air Pollution Program (Contract No. 582-23-40125) in the amount of \$2,525,585.00 to provide investigation services and complaint response within the City of Dallas for the period of September 1, 2022 through August 31, 2027; and a required local match in the amount of \$1,243,944.85 over the five year period; and execution of the contract with TCEQ for the Air Pollution Compliance Program and all terms, conditions, and documents required by the agreement, approved as to form by the City Attorney,

SECTION 2. That the Chief Financial Officer is hereby authorized to receive and deposit funds in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund, Fund S387, Department MGT, Unit 295C, Revenue Code 6516.

SECTION 3. That the City Manager is hereby authorized to establish appropriations in an amount not to exceed \$2,525,585.00 in the TCEQ 22-27 Local Air Pollution Compliance Program Fund, Fund S387, Department MGT, Unit 295C, Object 3099.

SECTION 4. That the Chief Financial Officer is hereby authorized to disburse a local match in an amount not to exceed \$1,243,944.85 from the General Fund, Fund 0001, Department MGT, Unit 4298, Object 5011.

SECTION 5. That the Chief Financial Officer is hereby authorized to disburse funds in an amount not to exceed \$2,525,585.00 from the TCEQ 22-27 Local Air Pollution Compliance Program Fund, Fund S387, Department MGT, Unit 295C, Object 3099 to reimburse General Fund, Fund 0001, Department MGT, Unit 4298, Object 5011, for expenses incurred.

SECTION 6. That the City Manager is hereby authorized to reimburse the granting agency any expenditure identified as ineligible. The City Manager shall notify the appropriate City Council Committee of any expenditure identified as ineligible not later than 30 days after the reimbursement.

SECTION 7. That the City Manager shall keep the appropriate City Council Committee informed of all final granting agency monitoring report not later than 30 days after receipt of the report.

SECTION 8. That this contract is designated as Contract No. OEQ-2022-00019780.

SECTION 9. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.



File #: 22-1591		ltem #: 38.
STRATEGIC PRIORITY:	Environmental & Sustainability	
AGENDA DATE:	August 10, 2022	
COUNCIL DISTRICT(S):	All	
DEPARTMENT:	Office of Environmental Quality & Sustainability	
EXECUTIVE:	M. Elizabeth Cedillo-Pereira	

<u>SUBJECT</u>

Authorize the **(1)** acceptance of a grant from the U.S. Environmental Protection Agency through the Texas Commission on Environmental Quality (TCEQ) (Contract No. 582-23-40028, CFDA Nos. 66.034 and 66.605) in the amount of \$96,707.48 to operate the ambient air monitoring station in Rockwall County and air quality monitoring of the Particulate Matter (PM) 2.5 network, for the period September 1, 2022 through August 31, 2023; **(2)** receipt and deposit of funds in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Monitoring Program Fund; **(3)** establishment of appropriations in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Air Monitoring Program Fund; and **(4)** execution of the contract and all terms, conditions, and documents required by the agreement - Not to exceed \$96,707.48 - Financing: Texas Commission on Environmental Quality Grant Funds

BACKGROUND

Since 1967, the City of Dallas has worked with the TCEQ and its predecessor agencies to support clean air monitoring and enforcement of air quality regulations through a set of renewing contracts for services. There are three contracts under which TCEQ funds the City's Ambient Air Monitoring Group to monitor local air quality and also purchase and maintain necessary equipment.

This action addresses Contract No. 582-23-40028 for monitoring of PM 2.5 and Rockwall Ambient Air Monitoring. The City's Air Specialists collect sample specimens from six PM samplers in Dallas County as well as the Continuous Air Monitoring Station (CAMS) in Rockwall County which monitors for ozone and meteorological data. This program is of importance because of the serious health effects associated with exposure to fine particulates, also TCEQ requested that the City of Dallas operate the Rockwall (Rockwall County) continuous ambient air monitoring station as a part of the City's and Dallas/Fort Worth region's ambient air monitoring network. TCEQ purchased and installed major components of the station and will maintain these components at their expense, including all hardware and equipment required for the facility to be operational.

Authorization of this contract will allow for the City to accept TCEQ funds for FY 2023 and enable the City to continue the Rockwall/PM2.5 Ambient Air Monitoring Program. TCEQ reimburses the City of Dallas 100 percent of the cost associated to maintain the program.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On August 22, 2018, City Council authorized Contract No. 582-19-90038 with the Texas Commission on Environmental Quality to accept state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2018 through August 31, 2019, by Resolution No. 18 -1136.

On August 28, 2019, City Council authorized the first amendment to Contract No. 582-19-90038 with the Texas Commission on Environmental Quality to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2019 through August 31, 2020, by Resolution No. 19-1518.

On August 26, 2020, City Council authorized the fourth amendment to Contract No. 582-19-90038 with the Texas Commission on Environmental Quality to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2020 through August 31, 2021, by Resolution No. 20-1248.

On August 25, 2021, City Council authorized the sixth amendment to Contract No. 582-19-90038 with the Texas Commission on Environmental Quality to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2021 through August 31, 2022, by Resolution No. 21-1375.

The Environmental Commission was briefed on the City of Dallas Regulated Air Quality Programs on February 11, 2022.

The Environment & Sustainability Committee was briefed on the "Regulatory Air Quality Program" and "Non-Regulatory Air Quality Programs" on March 7, 2022.

FISCAL INFORMATION

Fund	FY 2022	FY 2023	Future Years
Texas Commission on Environmental Quality Grant Funds	\$96,707.48	\$0.00	\$0.00

WHEREAS, there is a continuing need for the City of Dallas to operate an air pollution control program; and

WHEREAS, there is a continuing need for an air pollution monitoring site in Rockwall County; and

WHEREAS, on August 22, 2018, City Council authorized Contract No. 582-19-90038 with the Texas Commission on Environmental Quality (TCEQ) to accept state grant funds to conduct the Rockwall/Particulate Matter 2.5 (PM2.5) Ambient Air Monitoring Program for the period September 1, 2018 through August 31, 2019, with state grant funds, in an amount not to exceed \$96,707.48, by Resolution No. 18-1136; and

WHEREAS, on April 8, 2019, the TCEQ authorized the second amendment to the Rockwall/PM2.5 Contract No. 582-19-90038 granting a no cost, scope of work change; and

WHEREAS, on August 27, 2019, the TCEQ authorized the third amendment to Contract No. 582-19-90038 to extend the expiration date of the FY 2019 contract by 90 days; and

WHEREAS, on August 28, 2019, City Council authorized the first amendment to Contract No. 582-19-90038 with the TCEQ to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2019 through August 31, 2020, in an amount not to exceed \$96,707.48, from \$96,707.48 to \$193,414.96, by Resolution No. 19-1518; and

WHEREAS, on August 5, 2020, the TCEQ authorized the fifth amendment to Contract No. 582-19-90038 to extend the expiration date of the FY 2020 contract by 180 days; and

WHEREAS, on August 26, 2020, City Council authorized the fourth amendment to Contract No. 582-19-90038 with the TCEQ to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2020 through August 31, 2021, in an amount not to exceed \$96,707.48, from \$193,414.96 to \$290,122.44, by Resolution No. 20-1248; and

WHEREAS, on August 25, 2021, City Council authorized the sixth amendment to Contract No. 582-19-90038 with the TCEQ to accept additional state grant funds to conduct the Rockwall/PM2.5 Ambient Air Monitoring Program for the period September 1, 2021 through August 31, 2022, in an amount not to exceed \$96,707.48, from \$290,122.44 to \$386,829.92, by Resolution No. 21-1375; and

WHEREAS, it is now necessary to authorize acceptance of a grant from the Texas Commission on Environmental Quality (Contract No. 582-23-40028) to operate the ambient air monitoring station in Rockwall County and air quality monitoring of the particulate matter (PM) 2.5 network for the period September 1, 2022 through August 31, 2023, in an amount not to exceed \$96,707.48; and

Now, Therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That the City Manager is hereby authorized to accept a grant from the U.S. Environmental Protection Agency through the Texas Commission on Environmental Quality (TCEQ) (Contract No. 582-23-40028, CFDA Nos. 66.034 and 66.605) in the amount of \$96,707.48 to operate the ambient air monitoring station in Rockwall County and air quality monitoring of the particulate matter (PM) 2.5 network for the period September 1, 2022 through August 31, 2023; and execution of the contract and all terms conditions, and documents required by the agreement, approved as to form by the City Attorney.

SECTION 2. That the Chief Financial Officer is hereby authorized to receive and deposit funds in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Air Monitoring Program Fund, Fund F713, Department MGT, Unit 296C, Revenue Code 6506.

SECTION 3. That the City Manager is hereby authorized to establish appropriations in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Air Monitoring Program Fund, Fund F713, Department MGT, Unit 296C, Object 3099.

SECTION 4. That the Chief Financial Officer is hereby authorized to disburse funds in an amount not to exceed \$96,707.48 in the TCEQ 22-23 Rockwall and PM 2.5 Air Monitoring Program Fund, Fund F713, Department MGT, Unit 296C, Object 3099.

SECTION 5. That the City Manager is hereby authorized to reimburse the granting agency any expenditure identified as ineligible. The City Manager shall notify the appropriate City Council Committee of any expenditures identified as ineligible not later than 30 days after the reimbursement.

SECTION 6. That the City Manager shall keep the appropriate City Council Committee informed of all final granting agency monitoring reports not later than 30 days after the receipt of the report.

SECTION 7. That this contract is designated as Contract No. OEQ-2022-00019681.

SECTION 8. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.



File #: 22-1592		ltem #: 39.
STRATEGIC PRIORITY:	Environmental & Sustainability	
AGENDA DATE:	August 10, 2022	
COUNCIL DISTRICT(S):	All	
DEPARTMENT:	Office of Environmental Quality & Sustainability	
EXECUTIVE:	M. Elizabeth Cedillo-Pereira	

<u>SUBJECT</u>

Authorize the **(1)** first amendment to the contract with the Texas Commission on Environmental Quality (TCEQ) for the Whole Air Monitoring Program (Contract No. 582-21-22370, CFDA No. 97.091) to accept additional grant funds in an amount not to exceed \$425,924.25 from the U.S. Environmental Protection Agency passed through the TCEQ, to continue the Whole Air Monitoring Program for the period September 1, 2022 through August 31, 2023; **(2)** receipt and deposit of funds in an amount not to exceed \$425,924.25 in the TCEQ 22-23 Whole Air Monitoring Program Fund; **(3)** establishment of appropriations in an amount not to exceed \$425,924.25 in the TCEQ 22-23 Whole Air Monitoring Program Fund; and **(4)** execution of the contract and all terms, conditions, and documents required by the agreement - Not to exceed \$425,924.25, from \$581,027.03 to \$1,006,951.28 - Financing: Texas Commission on Environmental Quality Grant Funds

BACKGROUND

Since 1967, the City of Dallas has worked with the TCEQ and its predecessor agencies, to support clean air monitoring and enforcement of air quality regulations through a set of renewing contracts for services. There are currently three contracts under which TCEQ funds the City's Ambient Air Monitoring Group to monitor local air quality and also purchase and maintain necessary equipment.

This action addresses Contract No. 582-21-22370 which ensures the monitoring of biological contaminates that could be associated with a bioterrorist attack on Dallas County. The TCEQ supports the Department of Homeland Security National Whole Air Monitoring Network which began in February 2003 in Texas. The TCEQ in turn, contracts with the City to operate the Whole Air Monitoring Network of whole air samplers at various locations throughout Dallas County. Authorization of this contract will allow for the City to accept TCEQ funds for the period of September 1, 2022 to August 31, 2023 and enable the City to continue the Whole Air Monitoring Program. TCEQ reimburses the City of Dallas 100 percent of the cost associated to maintain the program.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On August 22, 2018, City Council authorized the acceptance of a grant from the Texas Commission on Environmental Quality for the Whole Air Monitoring Program for the period of September 1, 2018 to August 31, 2019, by Resolution No. 18-1135.

On August 28, 2019, City Council authorized the first amendment of grant funds from the U.S. Environmental Protection Agency passed through TCEQ (Contract No. 582-19-90030, CFDA No 97.091) to conduct the Whole Air Monitoring Program for the period September 1, 2019 to August 31, 2020, by Resolution No. 19-1259.

On August 26, 2020, City Council authorized the third amendment of grant funds from the U.S. Environmental Protection Agency passed through TCEQ (Contract No. 582-19-90030, CFDA No 97.091) to conduct the Whole Air Monitoring Program for the period September 1, 2020 through April 30, 2021, by Resolution No. 20-1247.

On April 28, 2021, City Council authorized the acceptance of a grant from the U.S. Environmental Protection Agency passed through the Texas Commission on Environmental Quality (TCEQ) for the Whole Air Monitoring Program for the period of May 1, 2021 to August 31, 2022, by Resolution No. 21-0699.

The Environmental Commission was briefed on the City of Dallas Regulated Air Quality Programs on February 11, 2022.

The Environment & Sustainability Committee was briefed on the "Regulatory Air Quality Program" and "Non-Regulatory Air Quality Programs" on March 7, 2022.

FISCAL INFORMATION

Fund	FY 2022	FY 2023	Future Years
Texas Commission on Environmental Quality Grant Funds	\$425,924.25	\$0.00	\$0.00

WHEREAS, there is a continuing need to operate an air pollution control program and a network of monitors sampling for Whole Air contaminants; and

WHEREAS, on August 22, 2018, City Council authorized the acceptance of a grant from the Texas Commission on Environmental Quality for the Whole Air Monitoring Program for the period of September 1, 2018 to August 31, 2019, in an amount of \$475,000.00 and a grant agreement by Resolution No. 18-1135; and

WHEREAS, on August 27, 2019, the Texas Commission on Environmental Quality authorized the second amendment to the Whole Air Monitoring Contract No. 582-19-90030 granting a 90-day extension of the FY19 contract; and

WHEREAS, on August 28, 2019, City Council authorized the first amendment of grant funds from the U.S. Environmental Protection Agency passed through the Texas Commission on Environmental Quality (Contract No. 582-19-90030, CFDA No. 97.091) to conduct the Whole Air Monitoring Program for the period of September 1, 2019 to August 31, 2020, in an amount of \$475,000.00 and a grant agreement by Resolution No. 19-1259; and

WHEREAS, on August 26, 2020, City Council authorized the third amendment of grant funds from the U.S. Environmental Protection Agency passed through the Texas Commission of Environmental Quality (Contract No. 582-19-90030, CFDA No 97.091) to continue the Whole Air Monitoring Program for the period of September 1, 2020 through April 30, 2021, by Resolution No. 20-1247; and

WHEREAS, on April 28, 2021, City Council authorized the acceptance of a grant from the U.S. Environmental Protection Agency passed through Texas Commission on Environmental Quality (Contract No. 582-21-22370) for the Whole Air Monitoring Program for the period of May 31, 2021, to August 31, 2022, in an amount of \$581,027.03 and a grant agreement by Resolution No. 21-0699; and

WHEREAS, it is now necessary to authorize the first amendment of grant funds from the U.S. Environmental Protection Agency passed through the Texas Commission of Environmental Quality (Contract No. 582-21-22370) for the Whole Air Monitoring Program for the period September 1, 2022 through August 31, 2023, in an amount not to exceed \$425,924.25, increasing the contract amount from \$581,027.03 to \$1,006,951.28.

Now, Therefore,

BE IT RESOLVED BY CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That the City Manager is hereby authorized to execute the first amendment of a contract with the Texas Commission on Environmental Quality (TCEQ) for the Whole Air Monitoring Program (Contract No. 582-21-22370, CFDA No. 97.091) to accept additional grant funds in an amount not to exceed \$425,924.25 from the U.S. Environmental Protection Agency passed through the TCEQ, to continue the Whole Air Monitoring Program for the period September 1, 2022 through August 31, 2023; and execute all terms, conditions, and documents required by the agreement, approved as to form by the City Attorney.

SECTION 2. That the Chief Financial Officer is hereby authorized to receive and deposit grant funds in an amount not to exceed \$425,924.25 in the TCEQ FY 22-23 Whole Air Monitoring Program Fund, Fund F714, Department MGT, Unit 297C, Revenue Code 6506.

SECTION 3. That the City Manager is hereby authorized to establish appropriations in an amount not to exceed \$425,924.25 in the TCEQ FY 22-23 Whole Air Monitoring Program Fund, Fund F714, Department MGT, Unit 297C, Object 3099.

SECTION 4. That the Chief Financial Officer is hereby authorized to disburse funds in the TCEQ FY 22-23 Whole Air Monitoring Program Fund, Fund F714, Department MGT, Unit 297C, Object 3099.

SECTION 5. That the City Manager is hereby authorized to reimburse the granting agency any expenditure identified as ineligible. The City Manager shall notify the appropriate City Council Committee of expenditures identified as ineligible not later than 30 days after the reimbursement.

SECTION 6. That the City Manager shall keep the appropriate City Council Committee informed of all final granting agency monitoring reports not later than 30 days after the receipt of the report.

SECTION 7. That this contract is designated as Contract No. OEQ-2022-00019667.

SECTION 8. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.



File #: 22-1537		ltem #: 10.
		ncm #. 10.
STRATEGIC PRIORITY:	Transportation & Infrastructure	
AGENDA DATE:	August 10, 2022	
COUNCIL DISTRICT(S):	All	
DEPARTMENT:	Department of Equipment and Fleet Management	
EXECUTIVE:	Dr. Robert Perez	

<u>SUBJECT</u>

Authorize (1) the acceptance of a grant from the Environmental Protection Agency through the North Central Texas Council of Governments for an award through the "Clean Fleets North Texas 2020 Call for Projects" (Project No. TRN6875, CFDA No. 66.039, Federal Award ID No. 01F56701) (to purchase replacement vehicles and equipment to reduce Nitrogen Oxides emissions in the amount of \$109,116.00 for the period August 11, 2022 through February 26, 2023); (2) the receipt and deposit of grant funds in an amount not to exceed \$109,116.00 in the Clean Fleets North Texas 2020 Fund - Award 2; (3) the establishment of appropriations in an amount not to exceed \$109,116.00 in the Clean Fleets North Texas 2020 Fund - Award 2; (4) a required local match in the amount of \$255,640.00 from Equipment Notes Series 2021 Fund; and (5) execution of the grant agreement and all terms, conditions, and documents required by the grant agreement - Total not to exceed \$364,756.00 - Financing: North Central Texas Council of Governments Grant Funds (\$109,116.00) and Equipment Notes Series 2021 Fund (\$255,640.00)

BACKGROUND

In October 2021, the Department of Equipment and Fleet Management applied for funding under the Clean Fleets North Texas 2020 Call for Projects from the North Central Texas Council of Governments. This \$109,116.00 grant award represents partial funding for two replacement vehicles for the City of Dallas that will be assigned to the Department of Public Works. These two vehicles include two projects/activities for two 5/6 cubic yard dump trucks. The award funds approximately 30 percent of the cost of a replacement vehicle or equipment. The remaining funds are matched through the Equipment Notes Series 2021 Fund.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On November 11, 2021, City Council authorized the acceptance of Award 1 from the Clean Fleets North Texas 2020 Call for Projects in the amount of \$385,704.00, by Resolution No. 21-1808.

File #: 22-1537

On August 25, 2021, City Council authorized the preparation of plans and the payment of potential future costs and expenses for the issuances of General Obligation Refunding and Improvement Bonds, Series 2020, Certificates of Obligation, Series 2020, and Equipment Notes, Series 2020, by Resolution No. 21-1358.

FISCAL INFORMATION

Fund	FY2022	FY2023	Future Years
North Central Texas Council of Governments Grant Funds	\$109,116.00	\$0.00	\$0.00
Equipment Notes Series 2021 Fund	\$255,640.00	\$0.00	\$0.00
Total	\$364,756.00	\$0.00	\$0.00

WHEREAS, the North Central Texas Council of Governments offered grant awards for the replacement of older and less environmentally friendly diesel vehicles and equipment through the "Clean Fleets North Texas 2020 Call for Projects"; and

WHEREAS, the City desires to lower its production of Nitrogen Oxides emissions and develop "greener" policies, practices and action plans.

Now, Therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That the City Manager is hereby authorized to accept a grant from the Environmental Protection Agency through the North Central Texas Council of Governments for an award through the "Clean Fleets North Texas 2020 Call for Projects" (Project No. TRN6875, CFDA No. 66.039, Federal Award ID No. 01F56701) to purchase replacement vehicles and equipment to reduce Nitrogen Oxides emissions in the amount of \$109,116.00 for the period August 11, 2021 through February 26, 2023; provide a required local match in the amount up to \$255,640.00; and execution of the grant agreement and all terms, conditions, and documents required by the grant agreement, approved as to form by the City Attorney.

SECTION 2. That the Chief Financial Officer is hereby authorized to receive and deposit grant funds in an amount not to exceed \$109,116.00 into the Clean Fleets North Texas 2020 Fund – Award 2, Fund F711, Department EFM, Unit 104E, Revenue Code 6506.

SECTION 3. That the City Manager is hereby authorized to establish appropriations in an amount not to exceed \$109,116.00 in the Clean Fleets North Texas 2020 Fund – Award 2, Fund F711, Department EFM, Unit 104E, Object 4740.

SECTION 4. That the Chief Financial Officer is hereby authorized to disburse funds in an amount not to exceed \$109,116.00 from the Clean Fleets North Texas 2020 Fund – Award 2, Fund F711, Department EFM, Unit 104E, Object 4740.

SECTION 5. That the Chief Financial Officer is hereby authorized to disburse a required local match of funds in the amount of \$255,640.00 from the Equipment Notes Series 2021 Fund, Fund 0772, Department EFM, Unit E446, Object 4740.

SECTION 6. That the City Manager is hereby authorized to reimburse to the granting agency any expenditure identified as ineligible. The City Manager shall notify the appropriate City Council Committee of expenditures identified as ineligible not later than 30 days after the reimbursement.

August 10, 2022

SECTION 7. That the City Manager shall keep the appropriate City Council Committee informed of all final North Central Texas Council of Governments monitoring reports not later than 30 days after the receipt of the report.

SECTION 8. That the City Manager or his designee is authorized to provide additional information, make adjustments, and take other actions related to the implementation of the grant as may be necessary to satisfy the North Central Texas Council of Governments.

SECTION 9. That this contract is designated as Contract No. EFM-2022-00019810.

SECTION 10. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.