

Resource Conservation Council Meeting

March 11, 2021

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1. Welcome and Introductions

Member Roll Call – Please unmute your phone to state your presence.

Guests – Please submit your name and organization into the chat box.

2. Notification of Conflicts of Interest.

Steve Massey, Chair of the Resource Conservation Council (RCC), will request RCC representatives with a potential conflict of interest relating to an agenda item to notify the RCC of the conflict of interest.

Action Items

3. Meeting Summary. The November 12, 2020 meeting summary will be presented for approval.

➡ Members: Please unmute your phone to vote.

Action Items

4. FY22-23 Solid Waste Grant Program – Grant Application Guidelines and Call for Projects Timeline.

Kathy Fonville, Vice Chair, will present the Grant Selection Subcommittee's recommended [Grant Application Guidelines](#) and Call for Projects Timeline to the RCC for approval.

DRAFT - Anticipated FY22/23 Call for Projects Timeline

Event	Timeline (FY22/23)	Past Timeline (FY20/21)
RCC Meeting – Approve Call for Projects (CFP) Criteria & Discuss Options for Regional Projects	March 11, 2021	August 6, 2019
Call for Projects Opens	April 7, 2021	October 14, 2019
Grant Application Webinar & Technical Assistance	April – May 2021	Sept – Dec 2019
Call for Projects Closes	May 26, 2021	January 6, 2020
RCC Meeting – Approve Regional Project Selections Resolutions/Court Orders Submitted to NCTCOG	June 26, 2021	February 6, 2020
Scoring Sessions (Grant Selection) & Private Sector Review	July 2021	January 2021
RCC Meeting - Approve Project Recommendations and Solid Waste Program Budget	August 2021	February 13, 2020
NCTCOG Executive Board - Approve Project Recommendations and Solid Waste Program Budget	September 23, 2021	March 26, 2020
Execute FY22 Interlocal Agreements	October 2021	April 2020
Execute FY23 Interlocal Agreements	September 2022	September 2020
Deadline for FY22 Project Completion	October 2022	March 2021
Deadline for FY23 Project Completion	March 2023	March 2021

Discussion Item

4. The RCC will discuss topics and budgets for FY22-23 regional projects.

- The Grant Selection Subcommittee:
 - Recommends that no waste characterization assessments be funded for FY22-23
 - Discussed priority topics:
 - Organic waste (food, yard, biosolids)
 - Waste Disposal Capacity
 - Recycling
- Other topics of importance?

Presentation

5. Third Waste Characterization Assessment Results.

Burns and McDonnell, Inc. will present the results of the October 2020 waste characterization assessment that was performed in association with the Regional Recycling Survey and Education Campaign.

Waste and Recycling Characterization Results

February 18, 2021

Resource Conservation
Council

Scott Pasternak
Eric Weiss



Waste Characterization Study Methodologies

	2018	2019	2020
Participating Cities	10	8	9
Trash Samples	50	49	50
Recycling Samples	None; used MRF audit data	44	50
Material Categories	31	34	34

- ▶ Study methodology changes between 2018 and 2019/2020
 - Two cities unable to participate in 2019; one unable to participate in 2020
 - Included hand-sorting of recycling in 2019 and 2020
 - Added e-commerce OCC, pizza boxes, and polypropylene (#5 plastic) categories in 2019 to provide additional perspective

Participating Cities Involvement

Cities
Dallas
Fort Worth
Denton
Arlington
Garland
Grand Prairie
Irving
Frisco
Mesquite*
Allen*
Weatherford

- ▶ Collected samples and tracked pickups
- ▶ Transported and delivered samples
- ▶ Represented a range of solid waste collection programs varying by
 - Size of program
 - Set out type (e.g. cart, bags)
 - Collection frequency (e.g. weekly, every other week)
- ▶ Thank you for your effort this year!

*unavailable to participate in 2020 sorting event

Waste Delivery



Hand-Sorting Material



Fines Screens



Weight Data Collection



Carts From Participating Cities



Waste and Recycling Characterization Data Analysis

- ▶ Regional analysis replicated 2019 to provide
 - Waste and recycling composition
 - Contamination rate
 - Capture rate
 - Value of material disposed
- ▶ Hand-sorting recycling allowed additional analysis on participating cities including
 - Individual waste and recycling composition
 - Participating cities' capture rate

Data Analysis Limitations

Year over Year Comparison

- ▶ 2018 recycling data based on MRF audits
- ▶ 2019/2020 recycling data based on hand-sort
- ▶ Cannot directly compare region-wide and participating cities capture rates

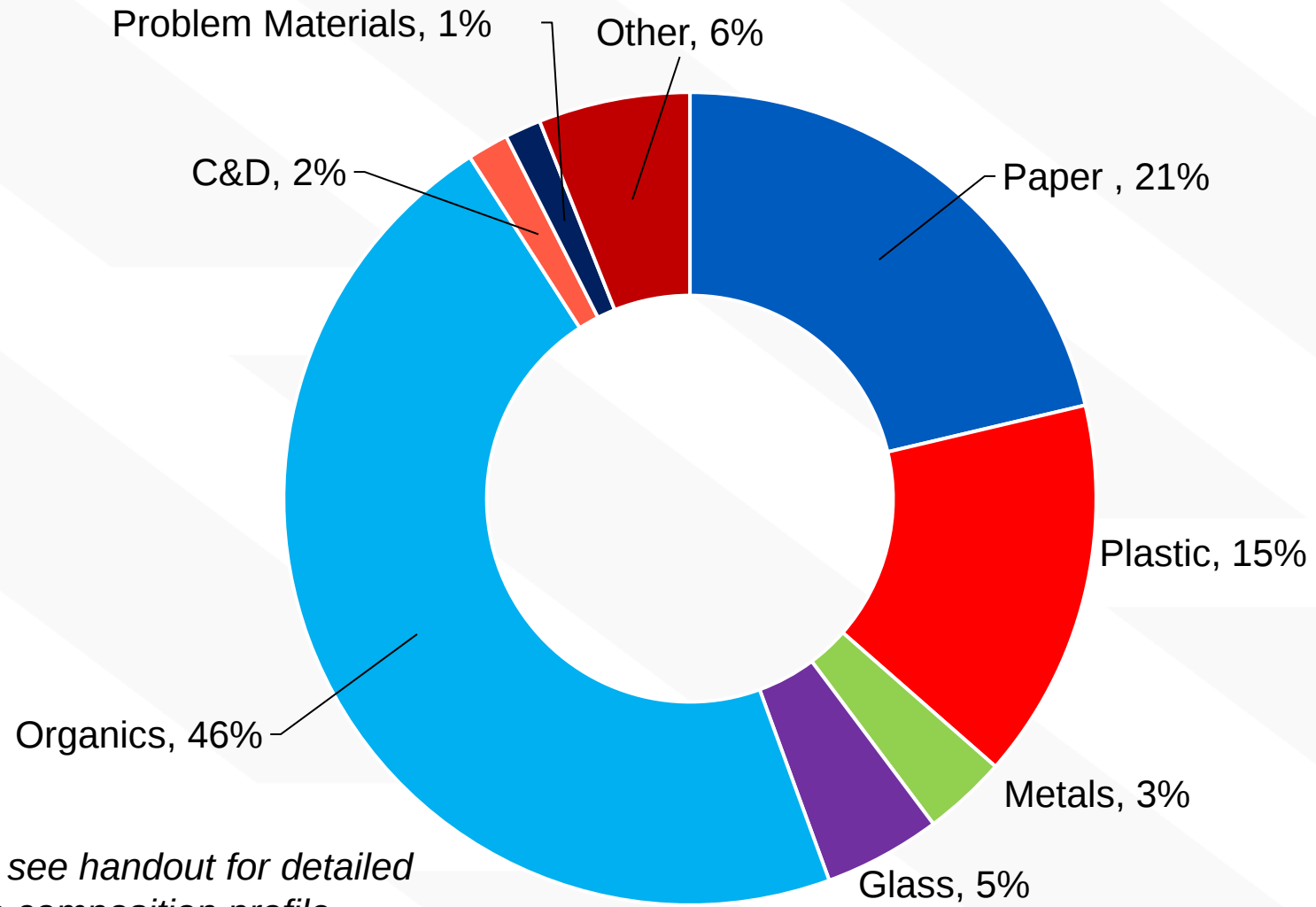
Extrapolating Data

- ▶ Individual city composition / capture rate cannot be extrapolated due to small sample size
- ▶ Hand-sorted recycling contamination higher than MRF audits

Effectiveness of Regional Campaign

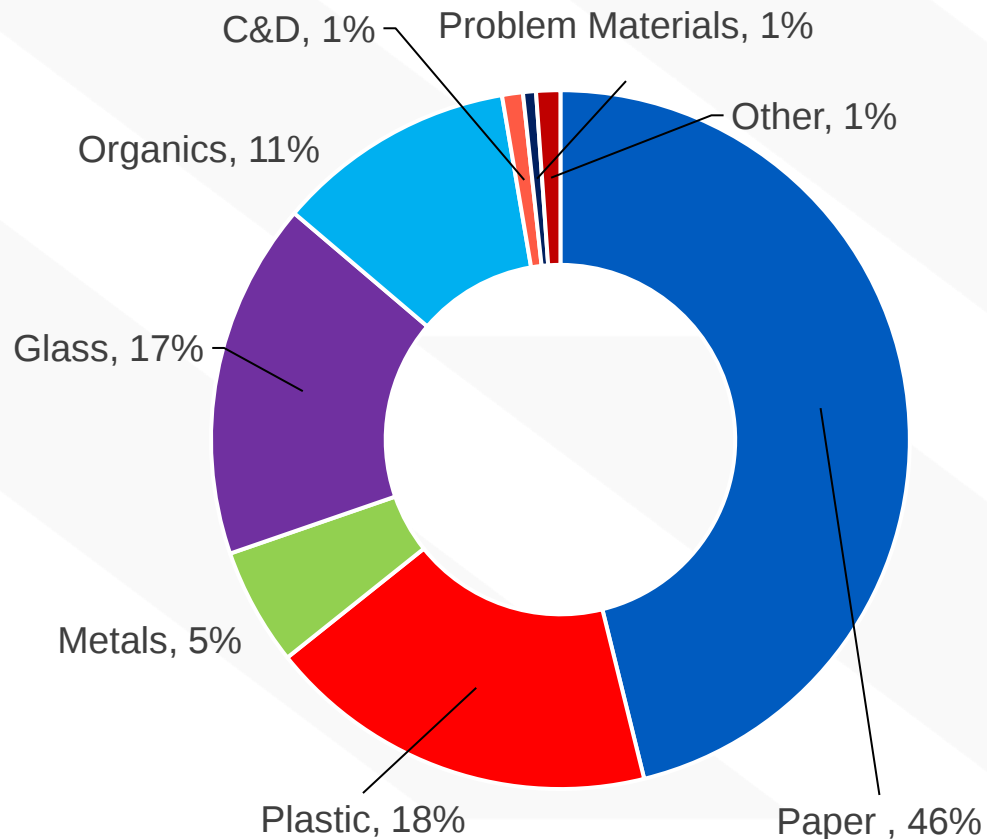
- ▶ Behavior change requires sustained campaign
- ▶ Individual cities adopting campaign critical
- ▶ Behavior change occurs at the source of recycling

2020 Regional Garbage Composition



Note: see handout for detailed waste composition profile

2020 Regional Recycling Composition



Note: see handout for detailed waste composition profile

Regional contamination rate
estimated at 30%

Includes following material categories:

- ▶ Non-recyclable OCC
- ▶ Other non-recyclable paper
- ▶ Non-recyclable plastic*
- ▶ Non-recyclable glass
- ▶ Organics*
- ▶ C&D
- ▶ Problem material
- ▶ Fines and other organics

*higher percentage than typical MRF audit due to material category differences and handling

2020 Overall Capture Rates

Capture Rate Methodology	Recycling	Garbage	Capture Rate
Participating Cities	2,500 pounds	1,732 pounds	59%
Regional	403,948 tons	1,004,157 tons	29%

- ▶ Weight of recyclables in recycling and garbage streams used to calculate overall capture rate
 - Participating cities capture rate sums material segregated during sorting event
 - Regional capture rate extrapolates garbage and recycling composition profiles across all material disposed/processed in North Central Texas
- ▶ Following slides present capture rate by material category for each methodology

2020 Participating Cities Capture Rate

Recyclable Material	2019 Participating Cities Capture Rate	2020 Participating Cities Capture Rate
Recyclable OCC	86%	84%
Mixed Paper	65%	52%
PET Containers	56%	51%
HDPE Containers - Natural	65%	58%
HDPE Containers - Colored	61%	52%
#3-#7 Containers	35%	31%
Aluminum Used Beverage Containers	63%	57%
Ferrous Metal Food Containers	44%	41%
Recyclable Glass	68%	59%
Total	69%	59%

*Note: figures calculated by compiling total weight of material segregated at the sorting event – **does not represent region-wide capture rate***

Regional Capture Rate Comparison

Recyclable Material	2019 Regional Capture Rate	2020 Regional Capture Rate	Year-over-Year Change ¹
Recyclable OCC	59%	62%	4%
Mixed Paper	34%	28%	-6%
Paper Subtotal	41%	38%	-3%
PET Containers	25%	27%	2%
HDPE Containers - Natural	28%	34%	6%
HDPE Containers - Colored	26%	26%	0%
#3-#7 Containers	11%	13%	1%
Plastic Subtotal	22%	24%	2%
Aluminum Used Beverage Containers	26%	31%	5%
Ferrous Metal Food Containers	14%	18%	4%
Metals Subtotal	20%	24%	5%
Recyclable Glass	34%	34%	-1%
Glass Subtotal	34%	34%	-1%
Total	30%	29%	-1%

Note: figures calculated by *extrapolating composition for garbage and recycling over total disposed and processed in region. **Different analysis than sample-based capture rate.***

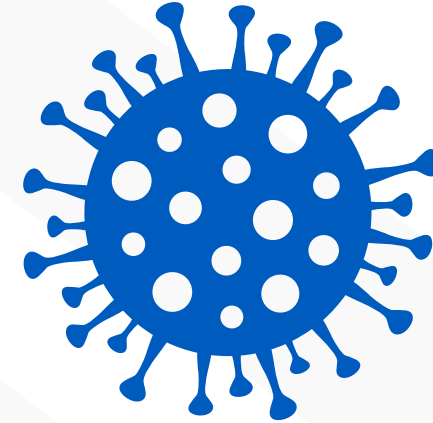
Regional Recycling Material Sold to Market

Material Category	2019	2020	Difference
Paper	\$7,939,248	\$13,089,243	\$5,149,996
Plastic	\$20,612,994	\$17,567,042	-\$3,045,952
Metal	\$14,041,083	\$17,125,674	\$3,084,591
Total	\$42,593,324	\$47,781,959	\$5,188,635

- ▶ Total value of material sold on secondary commodity market increased by \$5.1 million
- ▶ Moving five-year average (e.g. 2014-2019, 2015-2020) decreased value for most material types
- ▶ Indicates capture of high-value materials (e.g. cardboard, HDPE and aluminum cans) and decreased capture of low-value materials (i.e. mixed paper, magazines/glossy paper) impacts regional recycling market

COVID-19 Impacts

- ▶ Significant residential behavior change
 - Increased recycling and waste material generated
- ▶ Increase work and school from home
 - Decreased paper generation
 - Increased e-commerce cardboard generation
- ▶ Increase in contamination
 - Food waste contamination due to eating at home more often



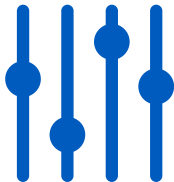
Conclusions



- ▶ Positive results between 2019 and 2020
 - Increased capture of key materials (OCC, PET, HDPE, ferrous and non-ferrous metals)
 - Increased value of material recycled by \$5.1 million
 - Decreased problem materials in recycling



- ▶ Areas for improvement
 - Work to increase overall capture rate
 - Continue to decrease contamination rate



- ▶ Leverage campaign moving forward
 - Continue coordinating key recycling messaging
 - Improve capture rates of key materials further over time
 - Decrease contamination rates entering MRFs

QUESTIONS?

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Discussion

6. 87th Texas Legislative Session.

Bill Number	Author	Topic
HB 176	Zweiner	Relating to local government prohibitions or restrictions on the sale or use of a container or package.
HB 631	Darby	Relating to local government and other political subdivision regulation of certain solid waste facilities.
HB 753	Cain	Relating to municipal solid waste management service contracts; limiting the amount of a fee.
HB 914	Hernandez	Relating to the authority of certain municipal employees to request the removal and storage of certain abandoned or illegal parked or operated vehicles.
HB 1947	Ordaz Perez	Relating to permitting of medical waste facilities by the Texas Commission on Environmental Quality



Discussion

6. 87th Texas Legislative Session.

Bill Number	Author	Topic
HB 2104	Campos	Relating to the county provision of solid waste disposal services.
HB 2708	Patterson	Relating to the use of certain fees deposited to the hazardous and solid waste remediation fee account for environmental remediation at a closed battery recycling facility site located in a municipality.
SB 594	Hinojosa	Relating to the provision of solid waste disposal services by certain counties; authorizing a fee.

- As of 3/8/2021, NCTCOG is tracking 14 bills relating to solid waste.
- The full [Legislative Matrix is available online](#) for review.

Regional Solid Waste Management Plan Update

- The Regional Management Plan Subcommittee met on December 7, 2020 and February 10, 2021
- NCTCOG released an RFP on February 9, 2021 to hire a contractor in assisting update the Regional Solid Waste Management Plans
 - Seeking local government volunteers to score proposals received, likely the week of March 22, 2021
- NCTCOG will be released the Regional Solid Waste Management Priorities, Needs, and Goals Survey on March 1, 2021 with the intention to receive feedback from the region to help guide the updates to the goals and objectives
- The Regional Management Plan Subcommittee will meet in early April 2021 to discuss the results from the survey and discuss updates to the goals and objectives
- U.S. National Recycling Goal: EPA soliciting comments on the recycling rate measurement methodology until March 8, 2021

Discussion

7. NCTCOG Updates:

- Vehicle and Equipment Funding Opportunities
- Regional Tire Disposal and Recycling Initiative
- Recycle Roundtable – next meeting: April 1, 2021 at 10AM
- COVID-19 and Waste Management Conference Calls – March 24, 2021 at 2:30PM
- Western Region Solid Waste Capacity Study
- FY2020-2021 Solid Waste Grants
- EPA Region 4 Trash Free Waters Grant

EPA Trash Free Waters Grant

- Project Goals:
 - Increase Adopt-A-Spot locations through [Trash Free Texas](#) Website
 - Provide outreach support for regional clean-up events
 - Reduce the use of plastics in restaurants
 - Share and replicate across the state
- Community Cleanup Challenge: <http://communitycleanupchallenge.com/coming-soon.php>
- Trash Free Texas Webinar: Connecting Volunteers with Litter Cleanup Locations (recording): <https://www.youtube.com/watch?v=CL9JhKV2aas&feature=youtu.be>
- TARC Presentation – March 30, 2021
- Trash Free Waters: North Central Texas Newsletter
- Project Webpage: <https://www.nctcog.org/environment-development/watershed-management/trash-free-waters-project>



Discussion Topics

7. NCTCOG Updates:

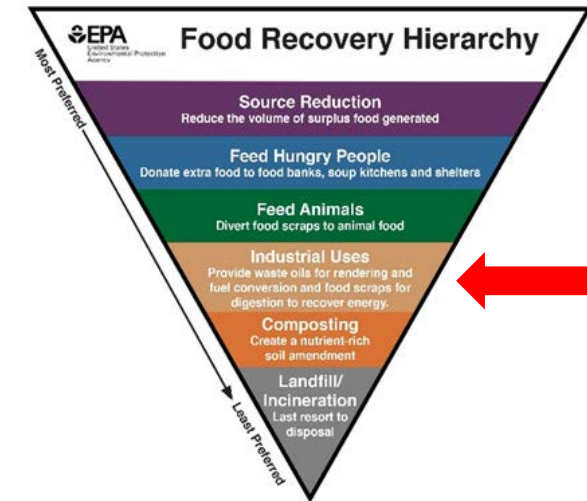
- Regional Electronics Recycling Contract:
<https://www.nctcog.org/envir/materials-management/regional-electronics-recycling-contract>
 - Which entities are using these regional contracts?
- Senate Bill 1376 Toolkit: <https://www.nctcog.org/envir/materials-management/sb-1376-resources>
- NCT Organic Waste to Fuel Feasibility Study
- Greenhouse Gas Inventory Update
- CLIDE Awards

North Central Texas Organic Waste to Fuel Feasibility Study

Why is NCTCOG interested in this Topic?

Challenges and Opportunities for North Central Texas

- Retain and Improve Landfill Capacity
 - 36 years of remaining capacity left
- Divert Food Waste and Other Organics
 - 50% of NCT waste stream is organic waste (31% food waste)
- Improve Biosolid Management
- Produce Biogas and Renewable Fleet Fuel
 - Support transition to RNG vehicles
- Reduce Greenhouse Gas and Other Emissions
- Meet zero-waste and other goals



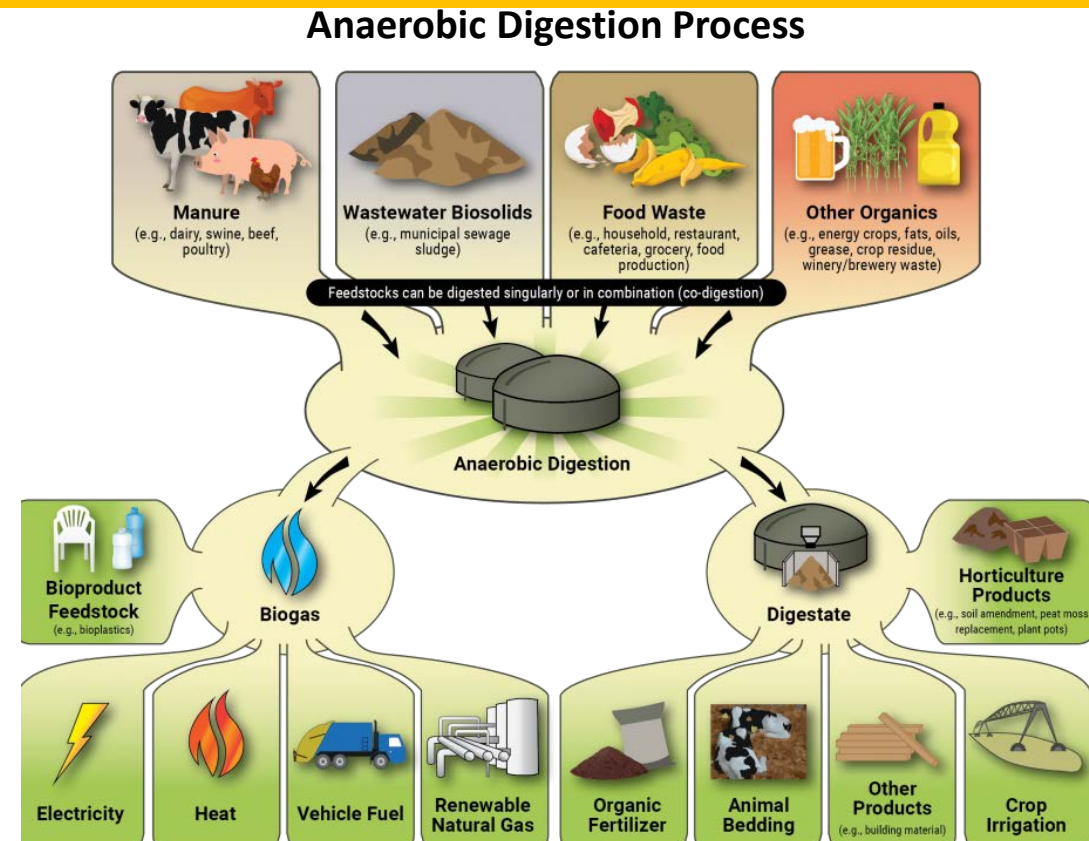
EPA Food Waste Recovery Hierarchy (Source: EPA)



EPA Non-Hazardous Waste Management Hierarchy (Source: EPA)

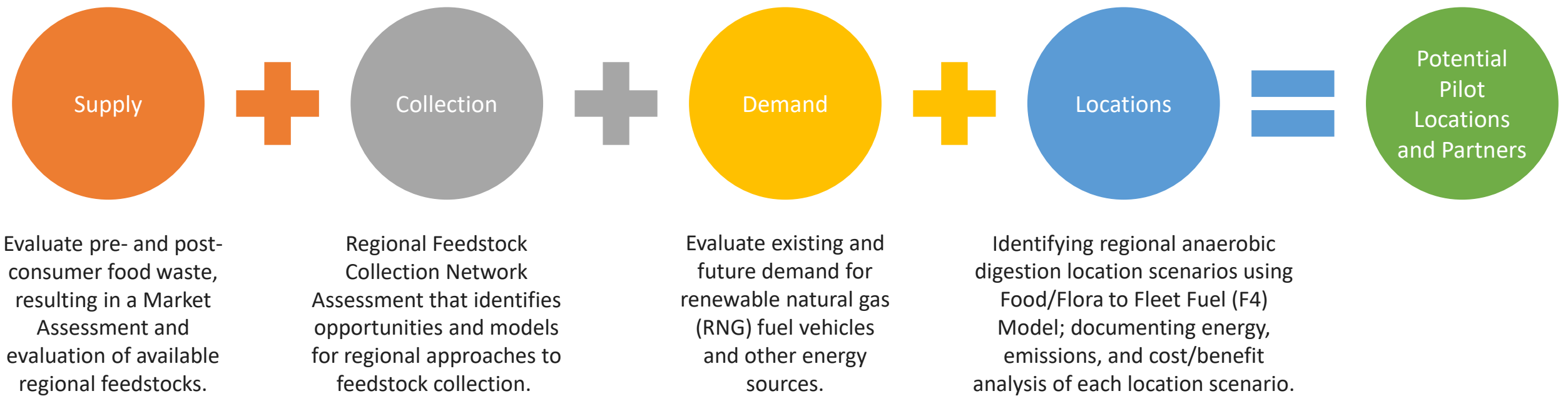
Regional Study Goals

- Advance regional efforts to divert food waste, and other organics, from landfills to preserve landfill capacity
- Increase regional renewable energy opportunities
- Evaluate the potential to reduce fleet emissions
- Identify pilot projects and partnerships to advance those projects



NCTCOG Continued Efforts

North Central Texas Organic Waste to Fuel Feasibility Study



North Central Texas Organic Waste to Fuel Feasibility Study Updates

- Adjusted the name of this effort to better reflect that all organics, including biosolids from WWTPs, as well as other organic sources will be assessed in a Feedstock Market Assessment and included in scenarios.
- North Central Texas **Organic Waste to Fuel Feasibility Study**
 - Award and initiation of work March 2021
 - Partnership between NCTCOG, DFW Clean Cities, and University of Texas at Arlington
 - Will hire a contractor in the Spring
 - Goal: Identify pilots and partnerships to move projects forward
- **Past Regional Webinars:**
 - December 9, 2020 - Food Waste, Anaerobic Digestion, and RNG Regional Efforts Roundtable ([recording and presentations available here](#))
 - March 24, 2021 – Organic Waste to RNG Regional Roundtable (recording and presentation to be posted here: <http://conservenorthtexas.org/event-archive>)

Next Steps: Establish and Convene Advisory Group with Diverse Stakeholders to Guide Study (March-May 2021)

- Municipalities
- Wastewater Provider
- School District
- Private Sector
- Industry
- Non-profit
- University (UTA) and others as appropriate



North Texas Regional Integration of Sustainability Efforts (RISE) Coalition Purpose

- Align regional partner initiatives
- Leverage regional resources and share best practices
- Provide networking and capacity building opportunities
- Identify funding opportunities for projects
- Provide mentorship
- Collaborate as a group on regional sustainability projects and initiatives

Fiscal Year 2021 Work Plan establishes regional collaborative efforts and foster peer exchange on key topics, including, but not limited to:

- Regional Emissions Assessment
- Emissions Impact Analysis and Mitigation/Adaptation Strategy Development
- Urban Heat Island Reduction Strategy Analysis
- Food Diversion and Waste Reduction Programs



Membership in the RISE Coalition

- Local government members in North Central Texas are invited to join the RISE Coalition.
- Quarterly in-person meetings are posted on the **NCTCOG Environment & Development Events Calendar** and on the RISE Coalition website.
- The Coalition is guided by Bylaws.
- A **Frequently Asked Questions** (FAQ) has been developed to clarify membership options and participation opportunities.
- Please visit the **RISE Membership** page to learn more.
 - <https://www.nctcog.org/envir/development-excellence/rise-coalition/rise-membership>

NCTCOG Regional Greenhouse Gas Emissions Inventory Program

Part 1: Regional Call for Cities to Participate in a Regional Cohort

Licenses will be available for member cities to utilize ICLEI software (ClearPath) to produce their own Greenhouse Gas (GHG) Emissions inventory using the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions.

Call for Interested Cities:

www.nctcog.org/trans/quality/air/local-regional-greenhouse-gas-emission-inventory

Opens: March 1, 2021

Closes: April 16, 2021

Requirements: NCTCOG Member City

(preference provided to RISE Coalition member cities)

For more information: Jenny Narvaez,
jnarvaez@nctcog.org, 817-608-2342

Regional Integration of Sustainability Efforts Coalition

www.nctcog.org/envir/development-excellence/rise-coalition



Regional Greenhouse Gas Emissions Inventory (GHG) Program

Part 2: NCTCOG is also conducting a Regional GHG Inventory for the 12-county Metropolitan Planning Area

- Initial step to conducting a GHG Inventory is collecting emissions sources in the region
- NCTCOG is Initiating Data Collection related to Energy, Waste, Water, and Wastewater
 - NCTCOG will be working through existing Federal, State, and Regional data
 - NCTCOG will contact individual cities, counties, special districts to provide needed data to fill gaps

Data Collection to begin March/April 2021

For reference and information, the data points for the regional GHG inventory are included on the next slide. NCTCOG will identify what is already available for the region and will be working to collect the data needed to fill the gaps.

Data Inputs for Individual City GHG Inventories (Part 1) and Regional GHG Inventory (Part 2)

No specific action is requested at this moment. The data points below are for information only. NCTCOG will be determining the appropriate process to collect this data, members who need to respond, and the process to issue surveys to fill identified data gaps for the region.

WASTE	WATER/WASTEWATER	WASTEWATER TREATMENT
Waste Sent to Combustion Facility (per facility) - Tons of Waste - Fossil CO2 (metric tons) N2O (metric tons) - CH4 (metric tons) Biologic CO2 (metric tons)	Electricity Usage and Units	Emissions from Wastewater Treatment Energy Use - Electricity Used and Units - Natural Gas Used and Units - Volume of Water Treated and Units (optional) - Population Served (optional)
Waste Sent to Landfill (per facility) Tons of Waste Landfilled	Natural Gas Usage and Units	Emissions from the Combustion of Digester Gas – Site Specific - Calculation Type Population Served - Gas Production (scf/day) Is energy recovered from combustion? - Gas Composition (%CH4) (if applicable) - Do you have gas composition or heat content? - Heat Content (btu/scf) - Wastewater generation and treatment location
Waste Sent to Compost Facility (per facility) Tons of Waste Composted	Indicators - Water Consumed (million gallons per year) (optional) - Population served (optional)	Emissions from the Combustion of Digester Gas – Population Based - Calculation Type Is energy recovered from combustion? - Population Served Wastewater generation and treatment location
Waste Transportation - Tons of Waste - Round Trip Distance to Facility (miles) - Transport Fuel	Allocation from Treatment System	Emissions from Flaring of Digester Gas - Digester Gas Produced Destruction Efficiency - Population Served Fraction of CH4 in Digester Gas - Wastewater generation and treatment location
Landfills (per facility) CH4 (metric tons)	Process Intensities - Water Consumption - Water Gallons per Day per Capita	Nitrification/Denitrification Process N2O from Wastewater Treatment - Nitrification/Denitrification as a step in the treatment process - Population Served Wastewater generation and treatment location - Industrial Commercial Discharge Multiplier
Waste Combustion Facilities (per facility) - Fossil CO2 (metric tons CO2) - CH4 (metric tons CH4) - N2O (metric tons N2O) - Biologic CO2 (metric tons CO2) - Indicators - Waste Combusted (tons)/Electricity Generated (kWh)	Energy Use - Water Source (ground, surface, etc) - Percent of total gallons from source - Gallons from source Distribution kWh/million gallons - Extraction kWh/million gallons Total kWh/million gallons - Conveyance kWh/million gallons Total kWh - Treatment kWh/million gallons	Process N2Ofrom Effluent Discharge to Rivers and Estuaries - Do you have daily N load data from your effluent discharge? - Daily N Load (kg N/day) - Population Served - Wastewater Generation and Treatment Location
Composting Facilities (per facility) - Amount of Waste Composted - Waste Type		Fugitive Emissions from Septic Systems – Population Based - Calculation Type - Population Served

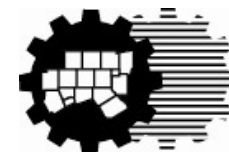
Funding Opportunities

Resource Conservation Council

March 11, 2021

Amy Hodges

Senior Air Quality Planner



**North Central Texas
Council of Governments**

NCTCOG – Available Replacement Programs

Funding Source: Environmental Protection Agency (EPA) National Clean Diesel Funding Assistance Program

Calls for Projects	Project Types	Available Funding
Clean Fleets North Texas (CFNT) 2020	Replace Heavy-Duty Diesel Vehicles and Equipment	\$494,820*
North Texas Emissions Reduction Project (NTERP) 2020	Replace High-Use Diesel Vehicles/Equipment, Rail/Switch Yard Idle Reduction Technologies	\$2,079,675

* Available from a prior EPA award. Some funding was previously awarded through CFNT 2018 and CFNT 2019 Calls for Projects.

NCTCOG – Available Replacement Programs

Program	Eligible Applicants	Eligible Activities	Old Vehicle Criteria	Funding Levels	Deadline
Clean Fleets North Texas (CFNT) 2020	Local governments or private companies that contract with local governments	Replace heavy-duty diesel vehicles and equipment	Fuel: Diesel Model Year: 1996 – 2006 (up to 2009 if replacing with electric) GVWR: >16,000 lbs.	Up to 45% if electric Up to 35% if new engine is certified to CARB Low NOx standards Up to 25% for all others	Next Deadline: April 9, 2021 Final Deadline: October 8, 2021
North Texas Emissions Reduction Project (NTERP) 2020	Private entities				

For all funding go to: www.nctcog.org/aqfunding

EPA Funding Program

Program	Eligible Applicants	Eligible Activities	Old Vehicle Criteria	Funding Levels	Deadline
Diesel Emissions Reductions Act (DERA) Clean Diesel Funding Assistance Program	Public entities	Replace or repower heavy-duty vehicles or equipment	Fuel: Diesel Model Year: older – 2009 (2010 - newer if replacing with electric or Low-NO _x) GVWR: >16,000 lbs.	Up to 45% cost if new vehicle is electric; up to 60% if repower Up to 35% cost if new is powered by engine certified to CARB optional low-NO _x standards (both CNG and LPG engines currently available); up to 50% if repower Up to 25% cost for all others; up to 40% if repower	March 16, 2021

For all funding go to: www.nctcog.org/aqfunding

For More Information

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Website

www.nctcog.org/aqfunding

Other Business

8. Future agenda items

9. Roundtable topics

Next Meeting Date:

Wednesday, May 26, 2021 at 1:30 p.m.
The meeting will be virtual. Details to follow.

Resources

- Materials Management website: <https://www.nctcog.org/envir/materials-management>
- Regional Solid Waste Management Plan: <https://www.nctcog.org/envir/materials-management/materials-management-plan>
- Solid Waste Grants: <https://www.nctcog.org/envir/materials-management/grants>
- Regional Electronics Recycling Contract: <https://www.nctcog.org/envir/materials-management/regional-electronics-recycling-contract>
- Closed Landfill Inventory: <https://www.nctcog.org/envir/materials-management/closed-landfill-inventory>

Resources

- Illegal Dumping: <https://www.nctcog.org/envir/materials-management/illegal-dumping>
- Western Region Waste Capacity Study: <https://www.nctcog.org/envir/materials-management/western-region-solid-waste-capacity-study>
- Regional Recycling Project (Know What To Throw): <https://www.nctcog.org/envir/materials-management/regional-recycling-survey-and-campaign>
- Time To Recycle: <http://www.timetorecycle.com/>

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