

Navigating PFAS Regulations

Trinity River Authority of Texas



Agenda

01

Intro Into TRA

02

What Is PFAS?

03

Regulatory Timeline

04

**TRA's Proactive
PFAS Initiatives**

05

TRA's PFAS Survey

06

**Survey Distribution &
Challenges**



01

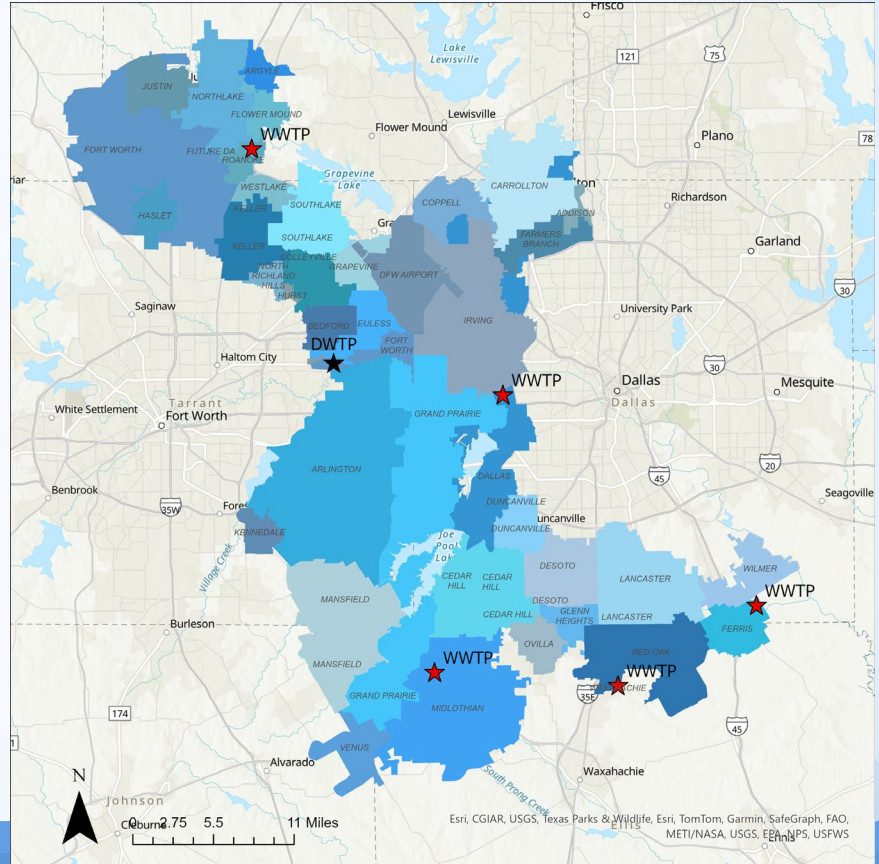
Trinity River Authority of Texas

Trinity River Authority of Texas

TRA provides wholesale water and wastewater treatment services

Northern Region:

- 5 WWTPs & 1 drinking water treatment plant
- Each plant serves multiple municipalities; 40+ total



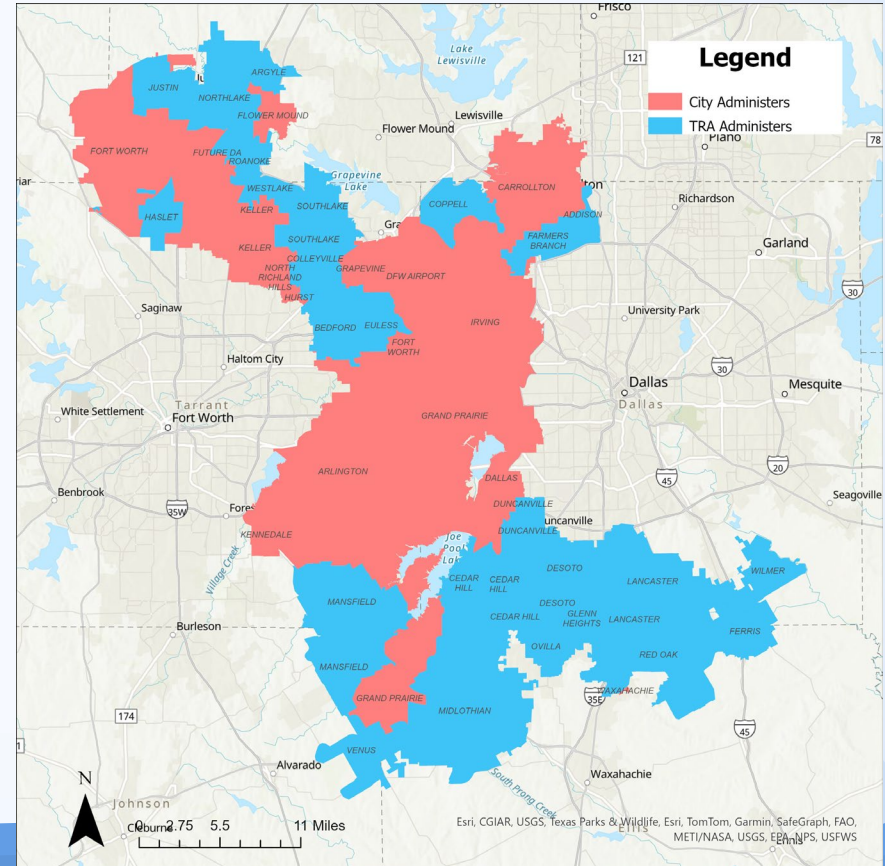
Trinity River Authority of Texas

Unique relationship with our customer cities:

- TRA holds TPDES permit = Control Authority
- Customer holds Ordinance = Legal Authority

TRA and its customer cities work together to oversee the pretreatment programs:

- Some customer cities administer their own pretreatment program
- Some customer cities enlist TRA to administer the pretreatment program on their behalf.





02

What is PFAS?

What is PFAS?

Prevalence

In a wide range of consumer and industrial products. **Over 12,000** have been identified.

Creation

First appeared as non-stick coatings in the 1940's. Do not occur naturally.

Persistence

Do not naturally break down. Known as **"forever chemicals"**.

Exposure

We use PFAS containing products and ingest, inhale, or rub PFAS into our skin.

Problem

Detected in **99%** of the population's blood. Linked to many different health concerns, including cancer.

Detection

PPM=1 drop in 13 gallons
PPB=1 drop in 10,000 gallons
PPT=1 drop in 20 Olympic swimming pools.

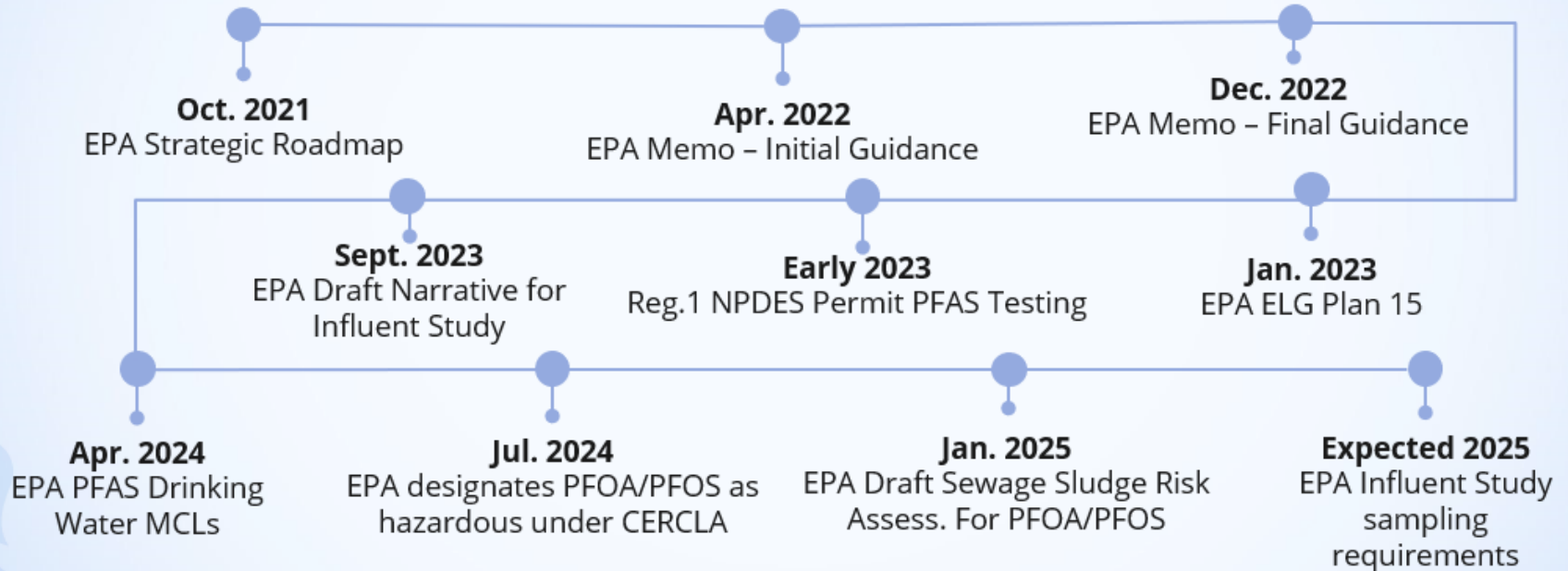




03

PFAS Regulatory Timeline

PFAS Regulatory Timeline





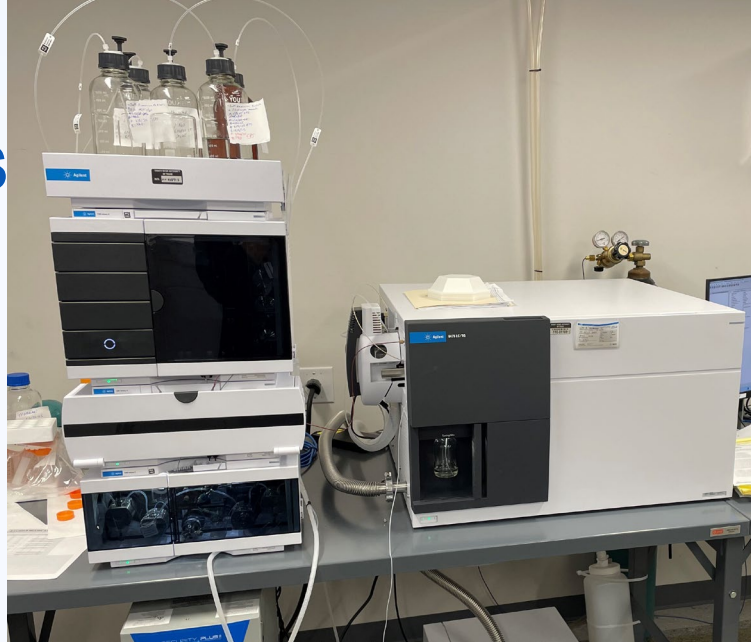
04

TRA Proactive Initiatives

TRA Proactive Initiatives

PFAS Lab Equipment

- Capable of testing 40 PFAS in water, wastewater, and biosolids
- Methods 533, 537.1 & 1633 (in-house)
- Method 1621 (3rd party lab)
- PFAS analysis available to utilities across Texas
- E-mail PFAStesting@trinityra.org for more info



Sampling

- Quarterly sampling at each plant & throughout collection systems
- Developed PFAS sampling plan for consistency
- Dedicated personnel for PFAS sampling
- Tracking & trending this data

PFAS Survey

- Developed & distributed to EPA “facilities of interest”
- Very large PFAS universe
- Proactively collect needed PFAS user data so we could focus efforts
- Dedicated personnel for PFAS survey efforts

EPA Facilities of Interest

<https://echo.epa.gov/trends/pfas-tools>

Plating, Electroplating, Metal Finishing and/or Circuit Board Manufacturing

Paper and/or Packing Manufacturing

Leather Tannery, and/or Leather/Fabric/Carpet Treater

Landfill with Leachate Discharge

Centralized Waste Treatment

Manufacturers of Polytetrafluoroethylene/PTFE coatings (i.e. nonstick “Teflon”)

Use of Fire Suppression Systems with Aqueous Film Forming Foam/AFFF (Class B) or other foams

Industrial Site with Soil and/or Groundwater Contamination (including sites where AFFF was used)

Catch All: Any location where PFAS are suspected to be present in any processes, chemicals, products, by products, wastewater, or other operations.



05

TRA PFAS Survey



PFAS Evaluation Form

General Information

Per- and Polyfluoroalkyl Substances, or PFAS, is a name for a large group of man-made fluorinated compounds that are used in a wide variety of industry and consumer products worldwide because of their resistance to water, oil, and heat. PFAS are commonly found in every American household in products as diverse as clothing, furniture, adhesives, food packaging, heat-resistant non-stick cooking surfaces, cosmetics, hygiene products, paints, cleaning products, and the insulation of electrical wire. These chemicals are long-lasting and break down very slowly over time. For additional information about PFAS, please visit <https://www.epa.gov/pfas>.

Please complete and submit this form before the stipulated deadline. Please be advised that failure to submit this form will result in repeated contact by the City and/or their duly authorized representative until it has been received.

Next

PFAS Evaluation Form

* Required

General Information *(Required)*

1. Name of Facility *

Enter your answer

2. Facility Street Address *

Enter your answer

3. Facility City *

Enter your answer

PFAS Evaluation Form

* Required

Business Related Activities *(Required)*

Does the facility conduct the following manufacturing processes, or related activities?

14. Plating, Electroplating, Metal Finishing and/or Circuit Board Manufacturing *

☐ Yes

☐ No

Back

Next

Plating, Electroplating, Metal Finishing and/or Circuit Board Manufacturing

PFAS-containing chemicals (including perfluorooctane sulfonate/PFOS) have been used by electroplaters as a demister/defoamer/surfactant to control air emissions of hexavalent chromium. PFAS have also been found in wetting agents and other plating chemicals involving other metals and plastics. **Some chemicals identified as "PFOS-Free" may still contain PFAS.** Even if used many years ago, PFAS-containing chemicals may persist in plating tanks, etch tanks, sumps, air emission control systems and secondary containment pits. PFOS contamination in wastewater may be possible years after the discontinued use of PFOS-containing chemicals.

15. What types of plating are currently performed at your facility? *

Enter your answer

16. What types of plating were previously performed at your facility? Please summarize the plating activities over the last 20 years if possible. *

Enter your answer

17. Are or were demisters/defoamers/surfactants used to control air emissions or as wetting agents for any plating or etch tanks? If so, what are the names of the chemicals and amounts and concentrations used? *

Enter your answer

18. Are there any other products or chemicals that are used or generated in the plating process containing PFAS, including any fluorinated chemicals?

Look for "fluoro" in the product/chemical name and on the SDS; e.g. "fluorinated surfactant(s)" or "organic fluorosulfonate", etc. <https://comptox.epa.gov/dashboard/chemical-lists/epafpfasin/>

If so, list the name of each product/chemical and the amount and concentration used/generated. *

PFAS Evaluation Form

* Required

Facility Discharges

22. PFAS chemicals are present in a wide range of consumer and industrial products due to their resistance to grease, oil, water, and heat. These consumer and industrial products include clothing, furniture, adhesives, food packaging, heat-resistant non-stick cooking surfaces, cosmetics, hygiene products, paints, cleaning products, and the insulation of electrical wire.

Are Per-/Polyfluoroalkyl Substances (PFAS)** suspected to be present in processes, chemicals, products, byproducts, wastewater, or other operations at this facility?

*** (Reference all SDS's for chemical names including "fluoro", or visit EPA's PFAS Chemical Inventory at <https://comptox.epa.gov/dashboard/chemical-lists/epapfasinv> to enter the chemical name into the "Preferred Name" search bar.)*

- ☐ Yes; PFAS **are** suspected to be present in processes, chemicals, products, byproducts, wastewater, or other operations at this facility.
- ☐ No; PFAS are **not** suspected to be present in processes, chemicals, products, byproducts, wastewater, or other operations at this facility.
- ☐ Presence is **unknown** in processes, chemicals, products, byproducts, wastewater, or other operations at this facility.

PFAS Evaluation Form

* Required

Authorized Representative Signature

An authorized representative of the facility must sign below indicating the information provided in this survey is, to the best of your knowledge, true, accurate, and complete.

26. Authorized Representative Name *

Enter your answer

27. I agree that all information provided is accurate to the best of my knowledge. *

☐ Agree

28. Additional comments:

Enter your answer

You can print a copy of your answer after you submit

Back

Submit



06

Survey Distribution & Challenges

Creating Our PFAS Universe

Data Sources

- Acquired facility list from our mailing list provider based on:
 - Service Area ZIP Codes
 - SIC/NAICS Codes of Interest

Initial Filter

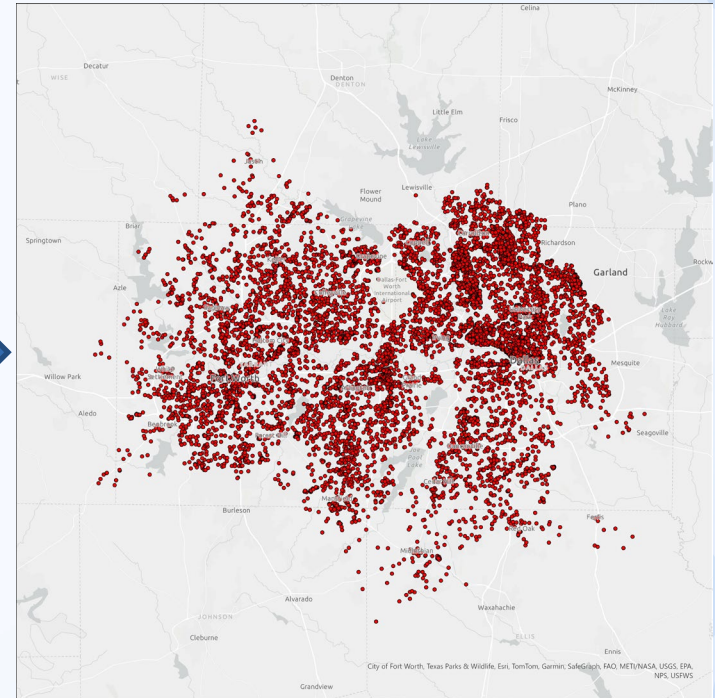
- Filtered out any facilities not within our service area using internal service area data
- Joined every facility to its corresponding WWTP using internal data

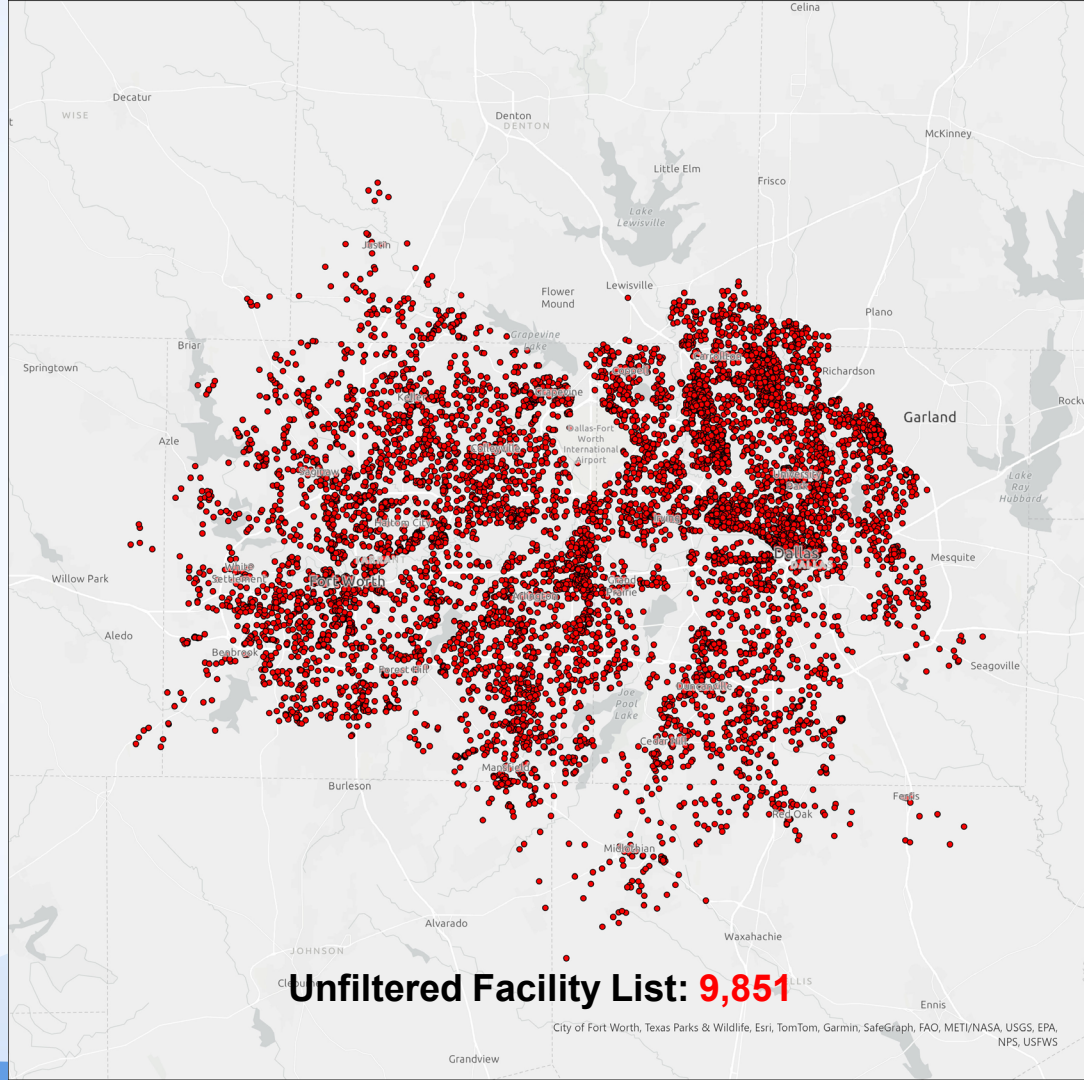
Confirm Applicability

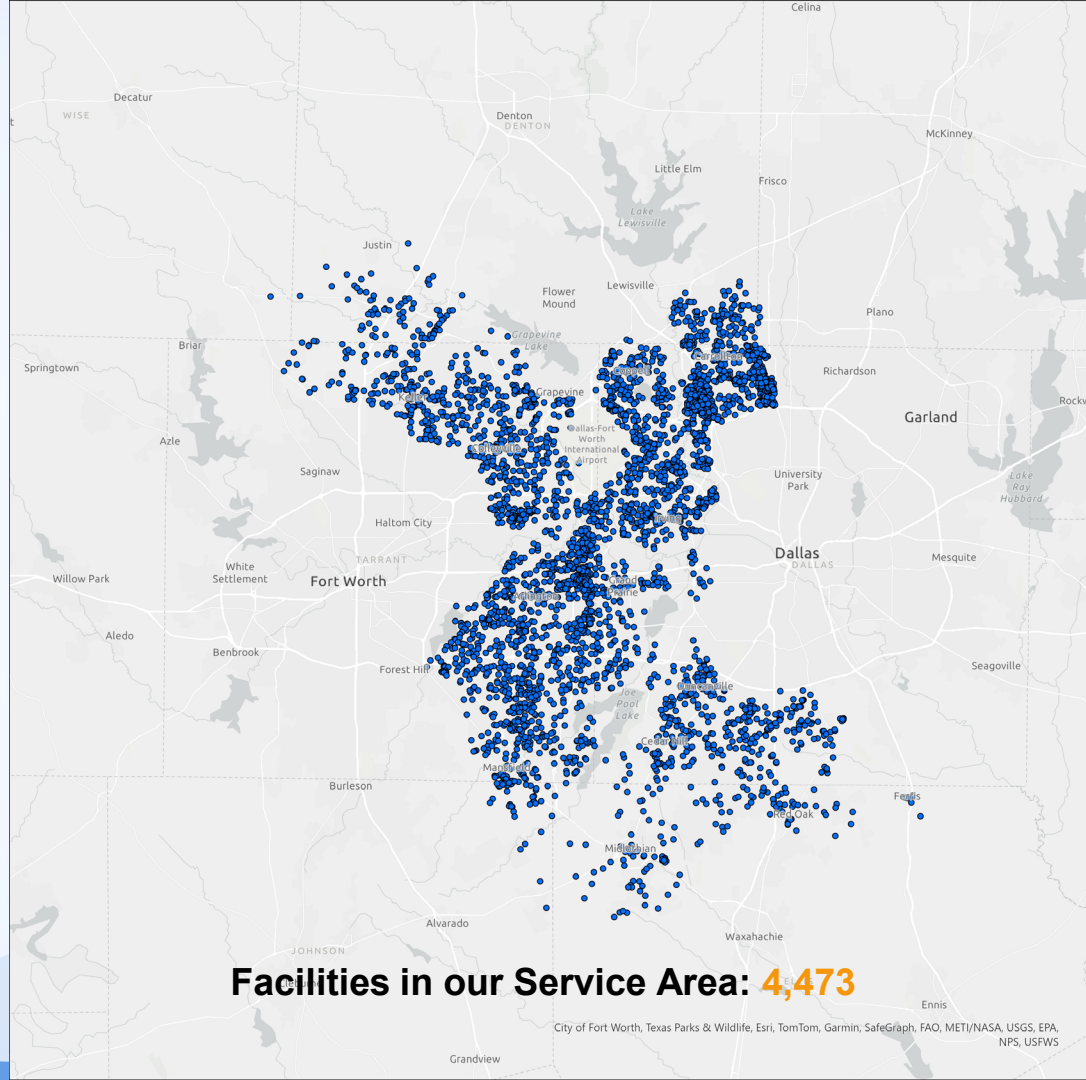
- Remove residential addresses from survey list
 - Publicly-available zoning information from customer cities
 - Web engine searching

Transform Tabular Data to Places on a Map

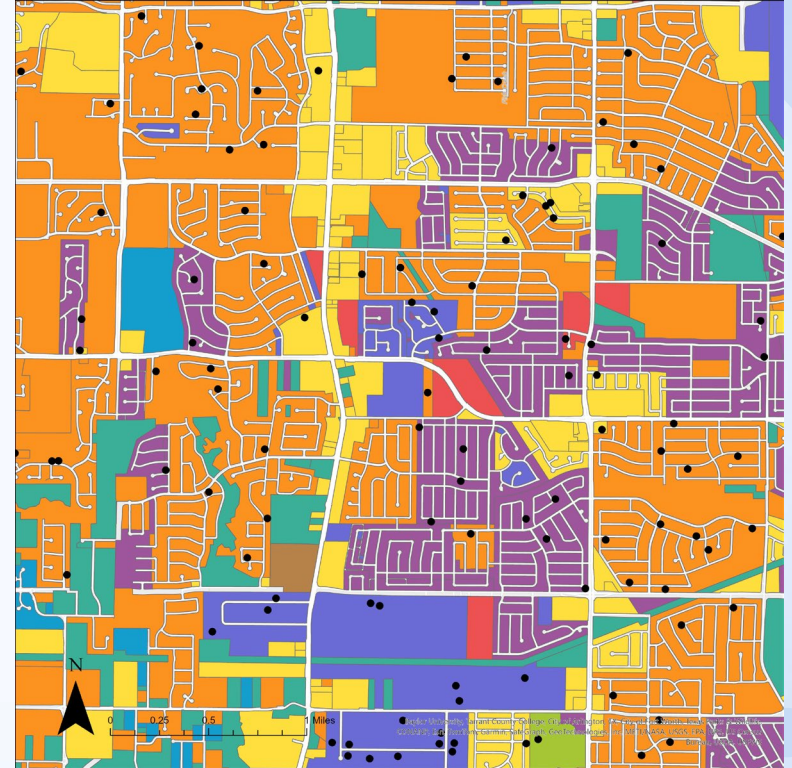
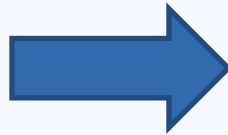
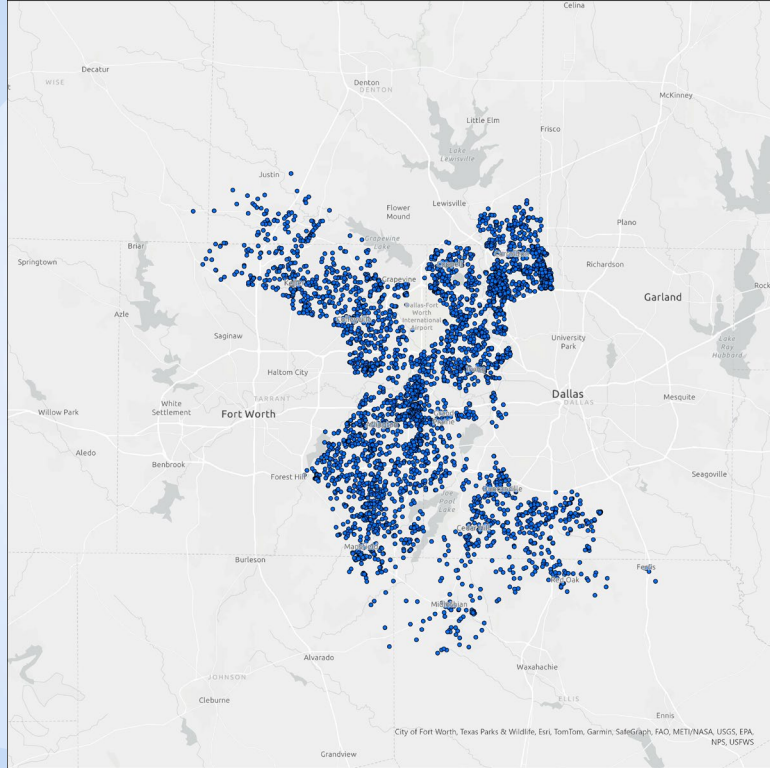
ID/NSI - COMPANY	ADDRESS	CITY	ST	ZIP	CR	DPI	ZIP4	LEGALNAME
313210 Atlas Match LLC	P O Box 348	Jaffrey	NH	03452-0348	B004	48	0348	ATLAS MATCH, L.L.C.
7004340 Mauldin Economics LLC	P O Box 1423	Stowe	VT	05672-1423	B013	23	1423	MAULDIN ECONOMICS, LLC
310632 Anne Cameron	P O Box 1153	Sharon	CT	06069-1153	B005	53	1153	ANNE CAMERON
291516 Hauck Mfg Co	P O Box 90	Lebanon	PA	17042-0090	B002	90	0090	HAUCK MFG CO
14284480 Epiroc Drilling Tools LLC	P O Box 271	Fort Loudon	PA	17224-0271	B003	71	0271	EPIROC DRILLING TOOLS LLC
325939 Walls Industries LLC	P O Box 21647	Greensboro	NC	27420-1647	B022	47	1647	WALLS INDUSTRIES LLC
572854 Sustainable Photon LLC	P O Box 323	Tignall	GA	30668-0323	B003	23	0323	SUSTAINABLE PHOTON, LLC
40263361 Leathermans Embroidery	P O Box 1423	Porte Vedra Beach	FL	32004-1423	B013	23	1423	LEATHERMAN'S EMBROIDERY
162877 Standard Industries Inc.	P O Box 6377	Mobile	AL	36660-0377	B004	77	0377	STANDARD INDUSTRIES INC.
512027 Aztec Industries Inc.	P O Box 180067	Jackson	MS	39218-0067	B001	67	0067	AZTEC INDUSTRIES, INC.
13372681 Kroger Co	P O Box 1525	Cincinnati	OH	45201-1525	B015	25	1525	THE KROGER CO
577702 Zimmer Dental Inc	P O Box 708	Warsaw	IN	46581-0708	B050	08	0708	ZIMMER DENTAL INC
322649 Darling Ingredients Inc	P O Box 3185	Melvindale	MI	48122-0185	B004	85	0185	DARLING INGREDIENTS INC.
19019106 Teltabs Broadband LLC	P O Box 3220	Naperville	IL	60566-7220	B050	20	7220	TELLABS BROADBAND LLC
587227 Clariance Inc	P O Box 259499	Chicago	IL	60625-8603	B038	99	8603	CLARIANCE, INC.
379868 Voice Of Miracles & Mission	P O Box 2544	Joplin	MO	64803-2544	B007	44	2544	VOICE OF MIRACLES & MISSION INC
332249 Atkinson Industries LLC	P O Box 268	Pittsburg	KS	66762-0268	B003	68	0268	ATKINSON INDUSTRIES LLC
334259 Bridge Purch Solutions Inc	P O Box 464	Rogers	AR	72757-0464	B004	54	0464	BRIDGE PURCHASING SOLUTIONS, INC.
2943540 Audio Technology Inc	P O Box 1708	Ponca City	OK	74602-1708	B012	08	1708	AUDIO TECHNOLOGY INC
13995824 Car Maverick LLC	4341 Lindbergh Dr Ste 200k	Addison	TX	75001				CAR MAVERICK LLC
19640345 Proterra Advertising	P O Box 96	Addison	TX	75001-0096	B001	96	0096	PROTERRA ADVERTISING
242043 Colbyco Industries LLC	P O Box 619	Addison	TX	75001-0619	B007	19	0619	COLBYCO INDUSTRIES, LLC
359964 My Cupcake Garden LLC	P O Box 724	Addison	TX	75001-0724	B009	24	0724	MY CUPCAKE GARDEN, LLC
18931437 Foreclosure Listing Service	P O Box 1007	Addison	TX	75001-1007	B012	07	1007	FORECLOSURE LISTING SERVICE INC
11641877 Steven V Tipps	P O Box 1145	Addison	TX	75001-1145	B014	45	1145	STEVEN V TIPS
7534819 Digi Point Marketing LLC	P O Box 1168	Addison	TX	75001-1168	B014	68	1168	DIGI POINT MARKETING, LLC
8092243 Details Group Companies Inc	3720 Westgate Ln Apt 329	Addison	TX	75001-1677	C061	79	1677	DETAILS GROUP OF COMPANIES INC.
8253255 Calhoun Marshala	3720 Westgate Ln	Addison	TX	75001-1758	C061	99	1758	CALHOUN MARSHALA
307621 Dinspace LLC	P O Box 1826	Addison	TX	75001-1826	B022	26	1826	DINSPACE, LLC

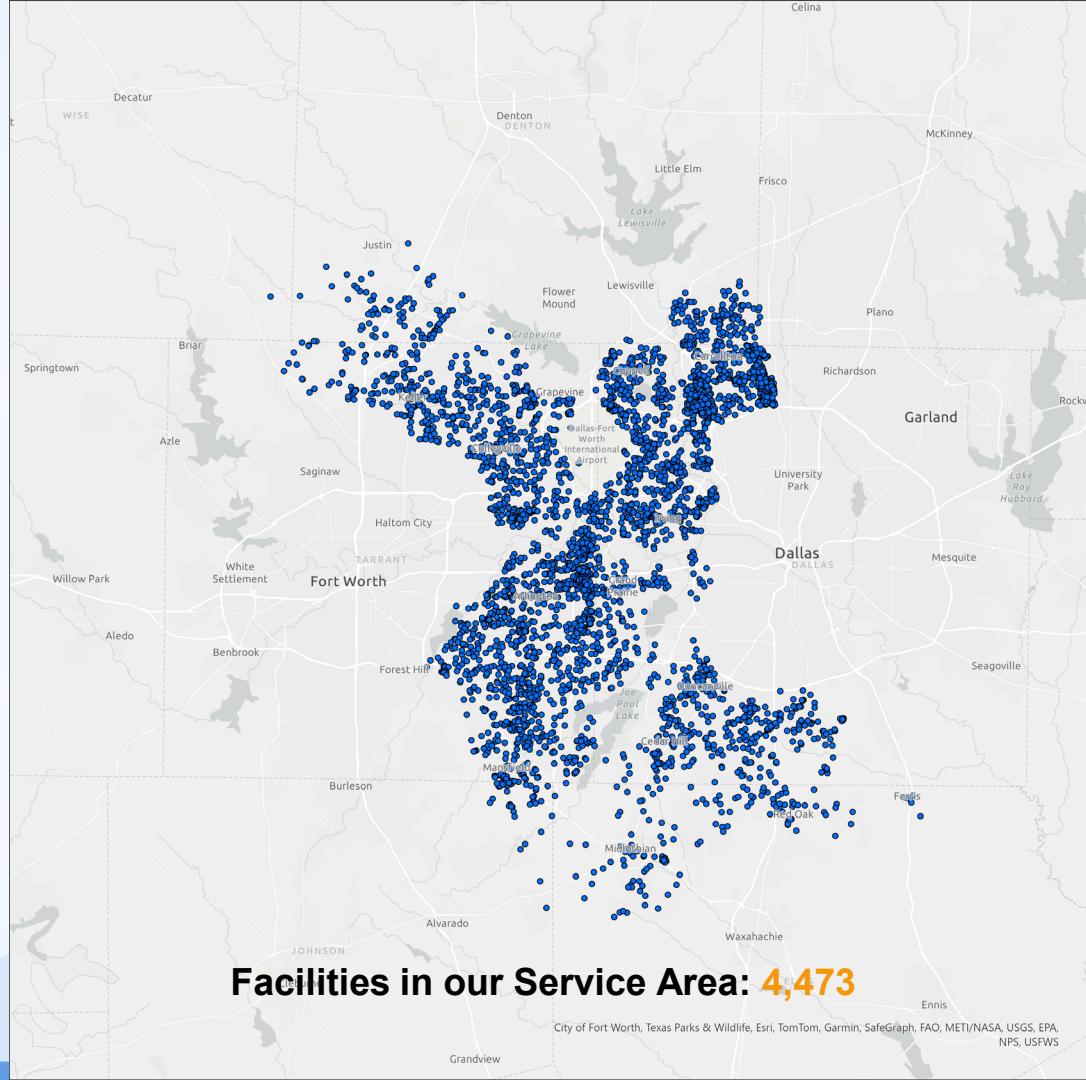


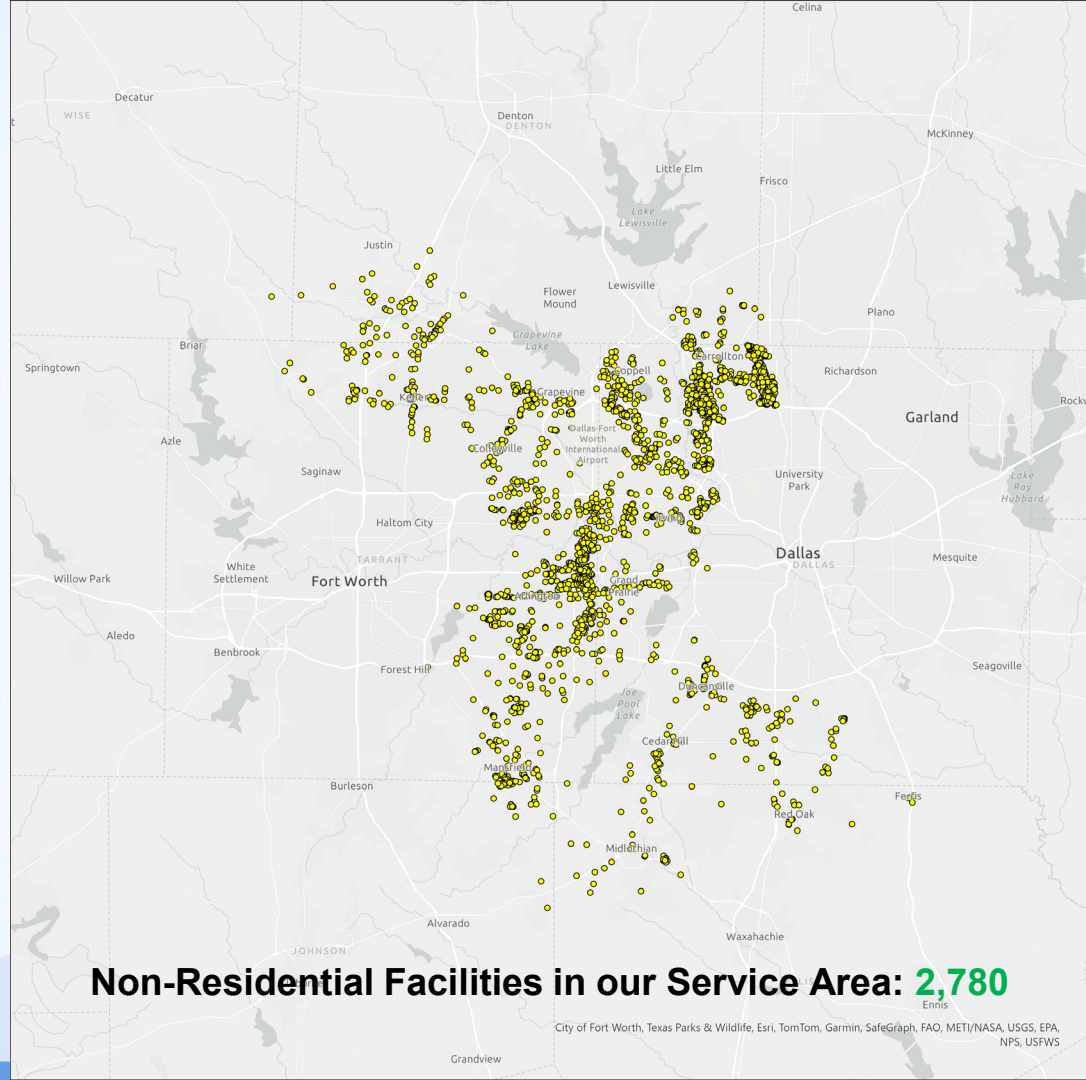




Remove Facilities in Residential Only Zones







Non-Residential Facilities in our Service Area: 2,780

City of Fort Worth, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS

Additional Facilities

Landfills

- Relied on customer cities to provide location data

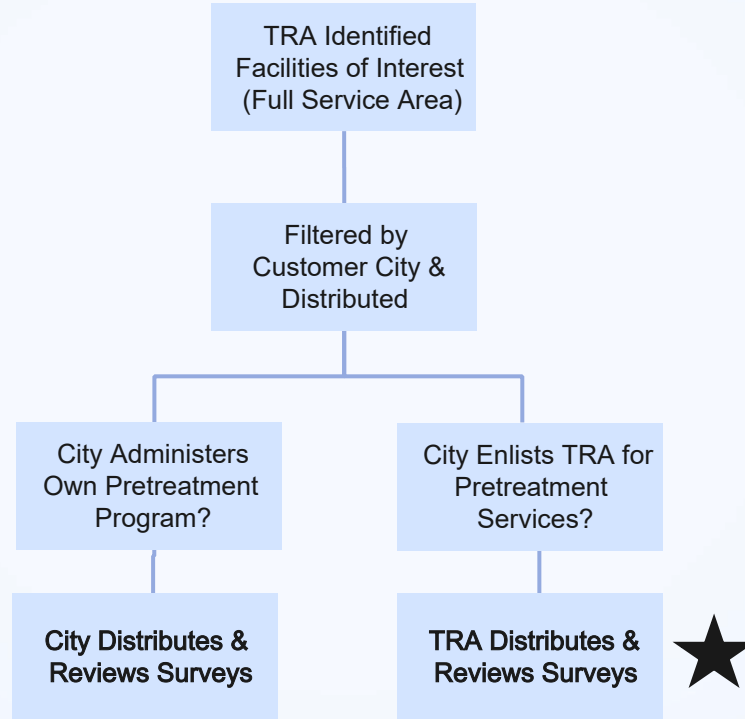
Fire Stations/Training

- Relied on customer cities to provide location data
- Lack of required reporting made it challenging to locate
- Google Searches
- EPA ECHO Tool

Airports

- 14 CFR Part 139 Airports
- Residential Landing Pads may be included

Survey Distribution Efforts



Phased Roll-out Approach

EPA Facilities of Interest

Phase I	Phase II	Phase III	Phase IV
<ul style="list-style-type: none">• Permitted SIUs	<ul style="list-style-type: none">• Manufacturers of Fluoroproducts• Chemical and Hazardous Waste Management• Paper Mills and Products• Landfills• Fire Suppression, Fire Training & Response	<ul style="list-style-type: none">• Other Chemical Manufacturers• Textile/Fabric Mills• Leather/Tanning• Electronics Manufacturing (Printed Circuit, Semiconductors)• Military/National Defense	<ul style="list-style-type: none">• Paint and Coating Manufacturing• Petroleum and Gas Manufacturing• Car Washes, Automotive, etc.• Other Small Businesses

Challenges in Distribution



Missing Contact Info

- E-mails not included in the facility spreadsheet
- Could not eliminate physical mail out
- E-mails were added after submission



Unclear Service Area

- Some facility addresses fell under one city, but drained through a neighboring city
- Customer cities were asked to review facilities for accuracy



User Confusion

- Some facilities don't know what the survey is asking or needing



No Response

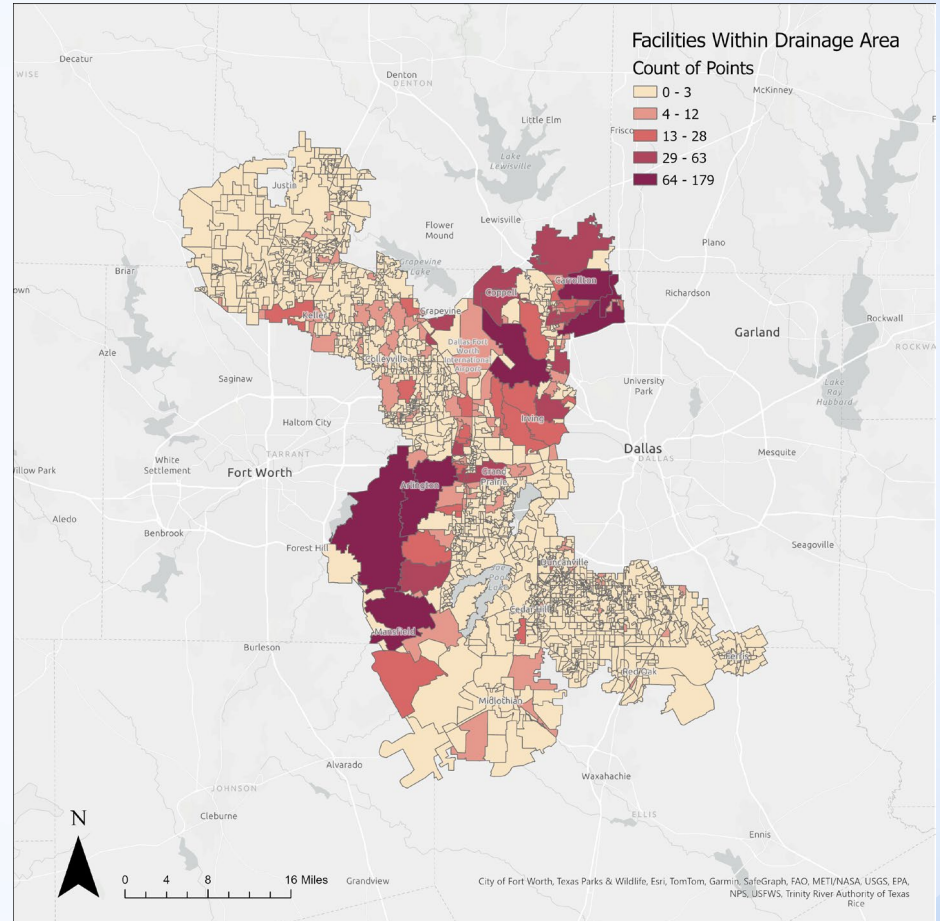
- Some facilities don't respond
- Requires in-person visit
- Electronic format with QR code increased participation
- Also lead to cost savings related to distribution

Survey Review & Categorization

High	Mentioned in 4-5 of the lists used by the EPA to determine categories of concern. Categories of high, proven concern as explained by case studies were also included in this classification. Process wastewater discharged.
Moderate	Mentioned in 2-3 of Lists used by the EPA to determine categories of concern. PFAS likely present in products. Process wastewater discharged.
Low	Mentioned in 0-1 of Lists used by the EPA to determine categories of concern. Shows potential to discharge process wastewater based on survey responses.
None	Facility discharges wastewater from restrooms only, is a commercial or sales office, or is a residential address.

PFAS Goals

- Use collections system sampling data and PFAS Survey data to identify hot spots of PFAS contribution within our system
- Identify biggest PFAS contributors so we can focus limited resources when industrial PFAS regulations are released
- Proactively minimize PFAS contribution from industrial and commercial users through BMPs



Thank You

Speaker Contact Info:

Gigi Garcia
Environmental Specialist
Ph: (972)975-4323
E: garciagj@trinityra.org

CREDITS: This presentation template was created by **Slidesgo**, and includes icons by **Flaticon**, and infographics & images by **Freepik**

