



# PUBCAP Meeting

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● ● ● Wednesday, May 15, 2024



# Call Open Meeting To Order

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# Approval of Minutes

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# Old Business

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# New Business

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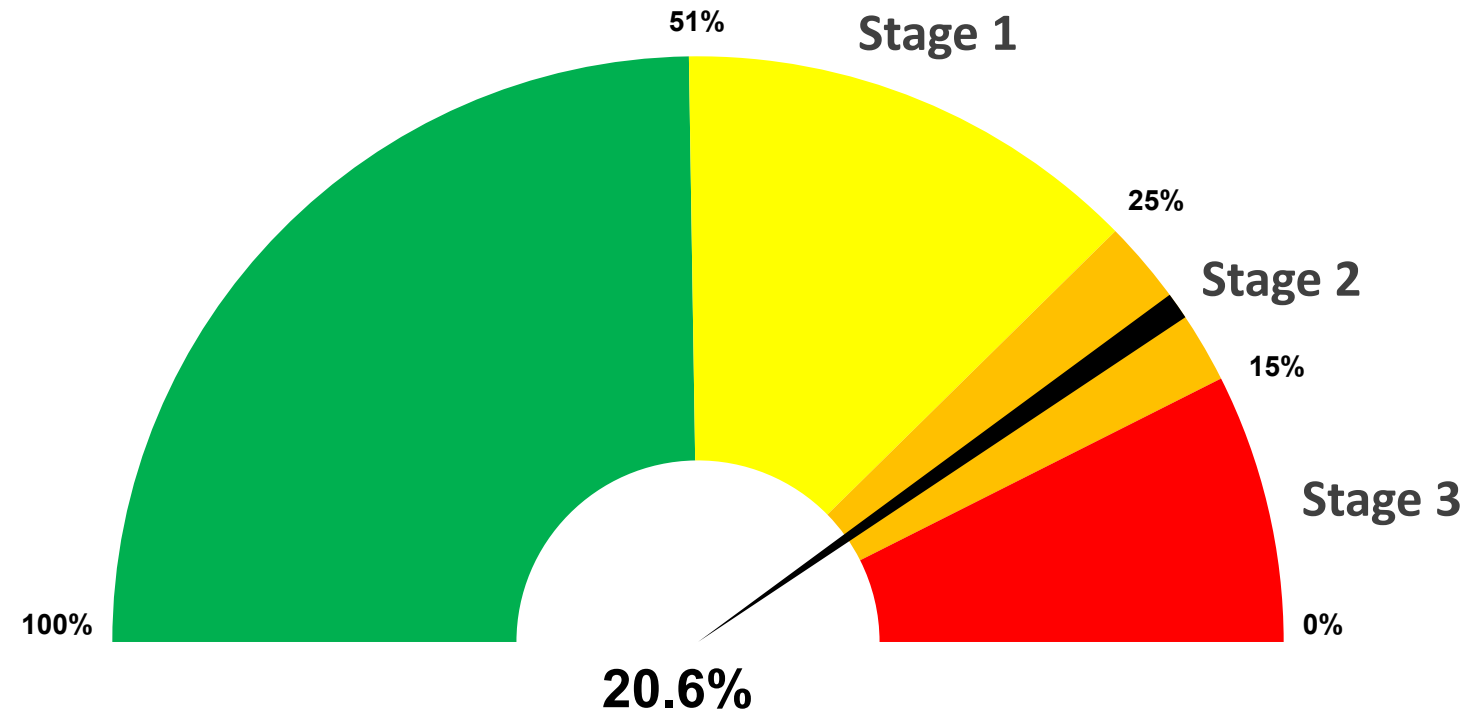


# Drought Update

MAY 15, 2024

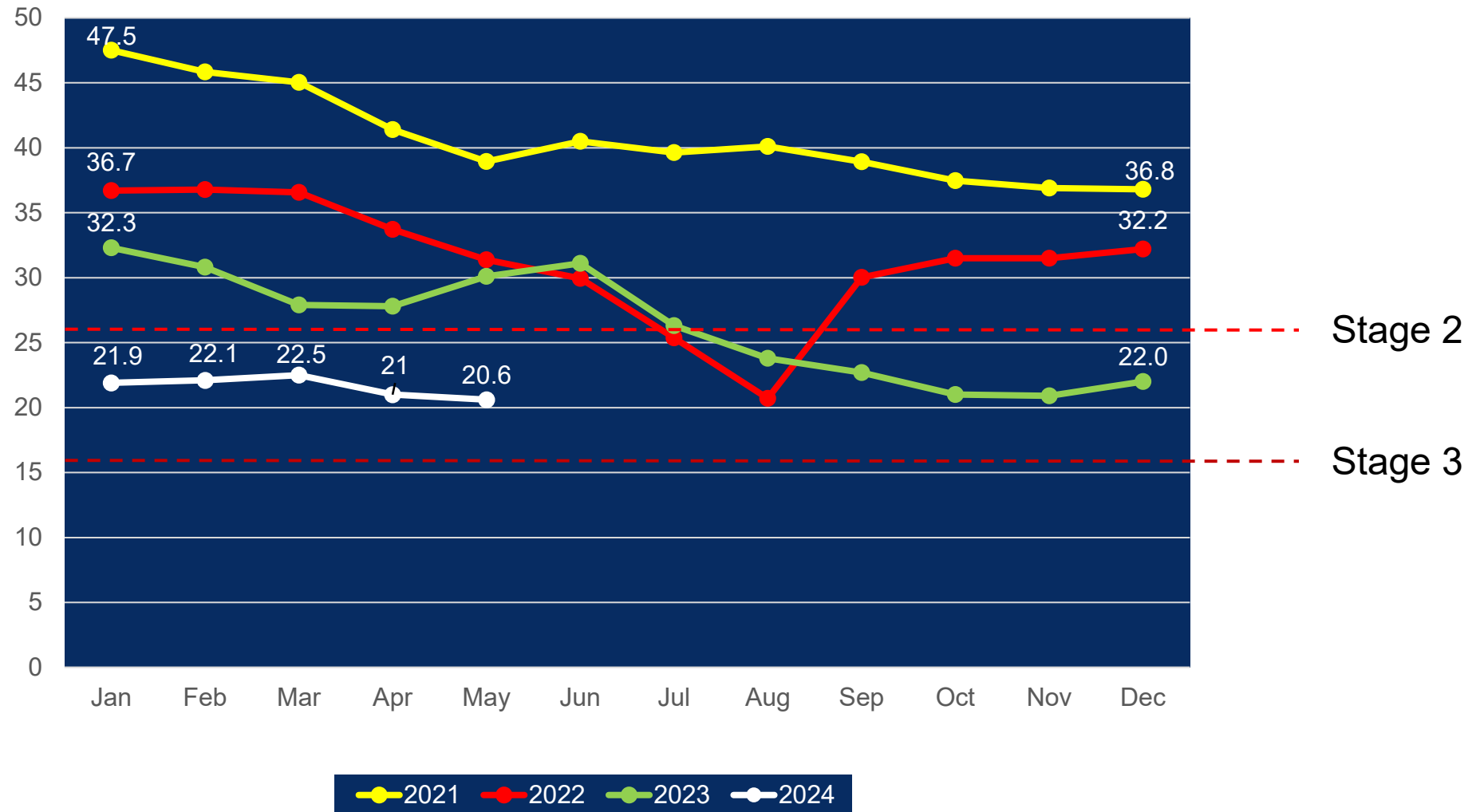
PUBLIC UTILITIES BOARD CONSUMER ADVISORY PANEL

# Drought Stage Meter



U.S. Combined ownership at Amistad and Falcon Reservoirs  
May 4, 2024 = 20.6%

## U.S. Combined Ownership at Amistad/Falcon



### Previous 3 Readings

21.0% - April 27, 2024

21.4% - April 20, 2024

21.7% - April 13, 2024

## **National Weather Service May to July 2024 Outlook: For the Lower Rio Grande Valley/Deep S. Texas Region**

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- Forecast indicate above average temperatures with above average evaporation rates and little to no soil moisture retention.
- Stage 2 water conservation continues, worsening conditions are likely through early summer.
- Sufficient inflows from Mexican tributaries remain unlikely May – July.
- Water Crisis in May or June is likely for agriculture and some municipalities.
- Cameron County issued a disaster declaration on April 15, 2024.
- 2024 Hurricane Season begins June 1.



B R O W N S V I L L E  
**PUBLIC UTILITIES BOARD**

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**EVERY DROP COUNTS!**

Learn more about drought at:



**[brownsville-pub.com/drought-resources](https://brownsville-pub.com/drought-resources)**



# Project SHARE Scholarship

MIGUEL COLLIS, DIGITAL INFORMATION PLATFORMS MANAGER

# Mission

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BPUB's annual project share scholarship program aims to support deserving high school graduates in their pursuit of higher education. This directly reflects BPUB's commitment to the transformative power of education. Over the past 17 years, BPUB has awarded roughly \$163,500 in scholarships to 177 recipients.

**17**

Total Years

**177**

Recipients

**\$163,500**

Total Scholarships Awarded



# Application Requirements

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1. Fill out the online application
2. Must reside in a household that receives service from BPUB
3. Must be graduating high school during the 2023 - 2024 school year
4. Must attend an accredited university in the United States

# Scholarship

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10 \$2K

scholarships awarded each year to Brownsville-area high schools  
graduating students

The scholarship amount has been increased from \$1,000 to \$2,000 to better assist  
students.

# 2024 Scholarship Recipients

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Name	School
Chloe Mares	James Pace Early College High School
Larissa Araiza	Homer Hanna High School
Rebecca Loera	Los Fresnos High School
Mia Navar Calderon	Hanna Early College High School
America A. Rangel	Rivera Early College High School
Sandra Marie Salazar	Gladys Porter Early College High School
Brianna Barajas	Veterans Memorial High School
Diya Aneesh	IDEA Frontier College Preparatory
Abigail N Rodriguez	Rivera ECHS
Kendra Rivera	Veterans Memorial Early College School



# Questions?



# **PRETREATMENT DEPARTMENT**

CITY OF BROWNSVILLE  
NON-DOMESTIC WASTEWATER  
PRETREATMENT ORDINANCE  
NO. 2020-795-G

May 15, 2024

● ● ● PUBCAB MEETING

# Why is the Pretreatment Program Required?

- ❖ To satisfy compliance with applicable State and Federal laws required by the Clean Water Act of 1977 (33 U.S.C. § 1251 et seq.) and the General Pretreatment Regulations for Existing and New Sources of Pollution (40 C.F.R. Part 403).
- ❖ To protect the health, safety and general welfare of the general public and POTW personnel.
- ❖ To enable the Publicly Owned Treatment Works (POTW)/Brownsville Public Utilities Board (BPUB) to comply with Texas Pollutant Discharge Elimination System (TPDES: WQ0010397003 & WQ0010397005) permit conditions (EPA I.D. No. TX0071340), sludge use and disposal requirements and other Federal and State Laws.

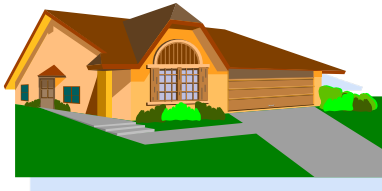


# Publicly Operated Treatment Works

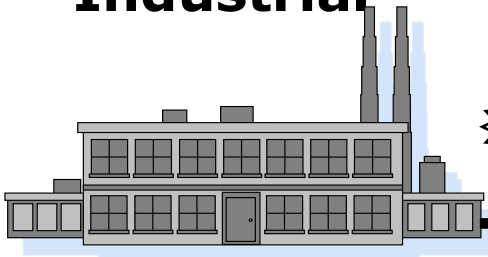
**Commercial**



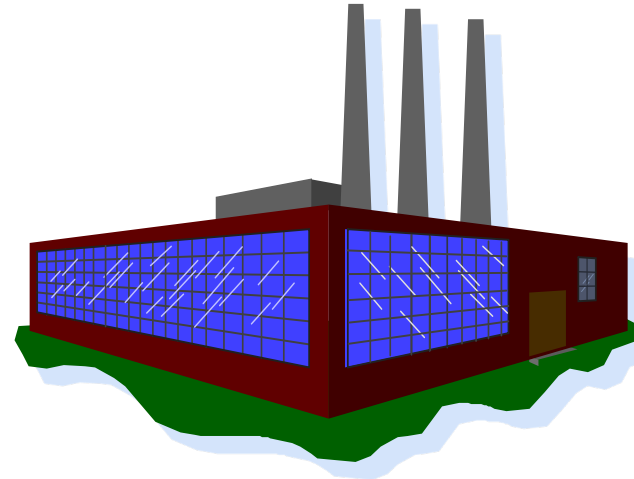
**Residential**



**Industrial**

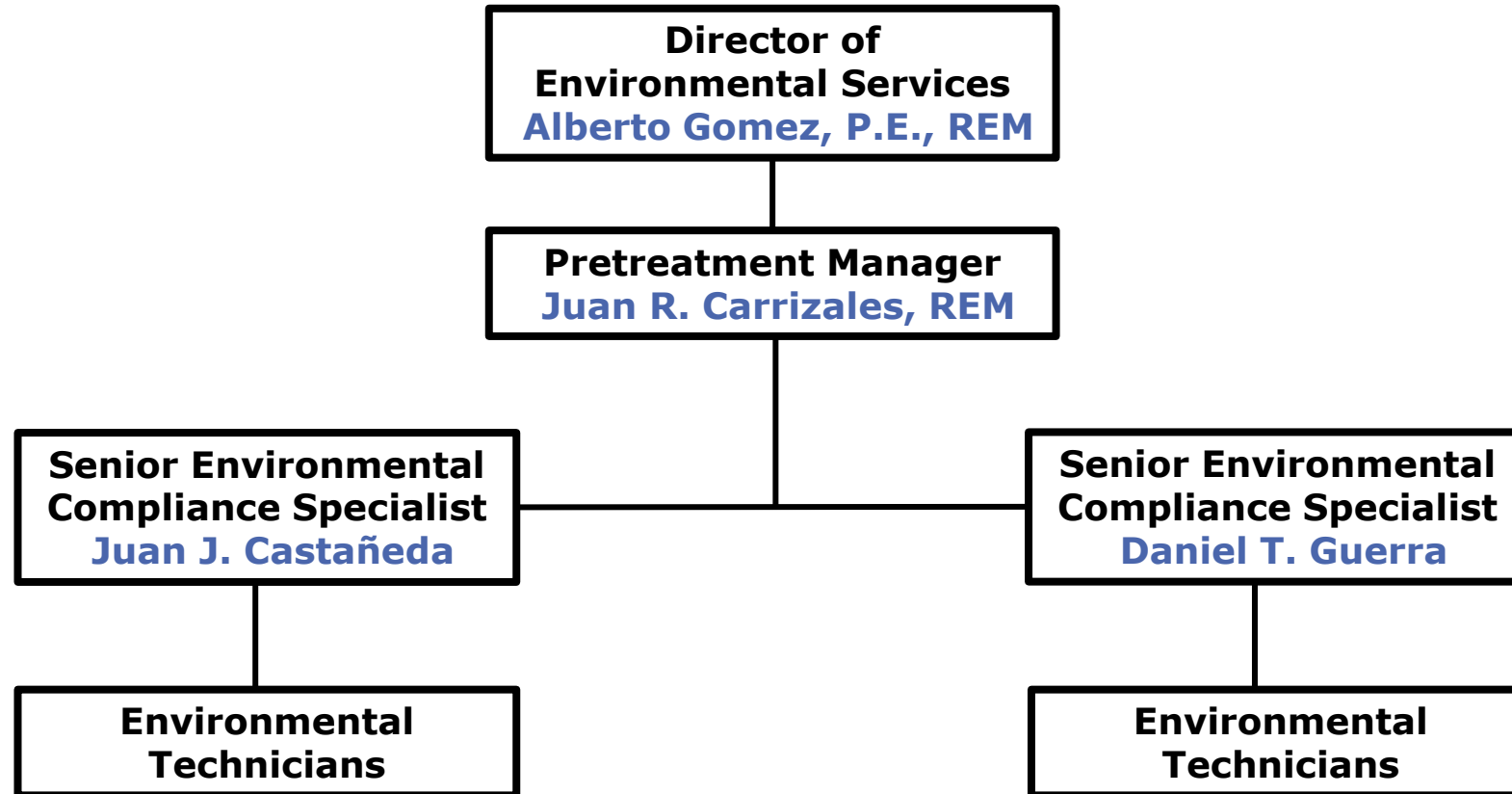


**Wastewater Treatment Plant**



 Lift Station

# Pretreatment Department





# Pretreatment Department Duties

- ❖ Prevent the introduction of pollutants into the City of Brownsville sanitary sewer system and our two wastewater treatment plants
- ❖ Assist industries to ensure compliance with Federal, State and Local pretreatment requirements
- ❖ Protect the welfare of the general public
- ❖ Protect the welfare of our BPUB team

# Pretreatment Department Duties

- ❖ Inspections & Investigations
- ❖ Facility auditing and wastewater sampling
- ❖ Pre-development meetings, site plan review, and approvals
- ❖ Investigate and report sewer overflows
- ❖ Comply with state and federal regulations
- ❖ Enforcement actions

# Pretreatment Department Duties

- ❖ City of Brownsville Non-Domestic Wastewater Pretreatment Ordinance: 2020-795-G
- ❖ Regulate Industrial User Wastewater Discharge
  - Industrial Discharge Permit (Effluent Limits)
  - Monitoring (Compliance & Surcharge sampling)
  - Inspections
  - Enforcement
    - Notice of Violation
    - Show Cause Hearing
    - Administrative Order
    - Administrative Fines (Surcharge Monitoring Program)
    - Wastewater service cancelation

EPA

TCEQ

BPUB

INDUSTRIES

# Pretreatment Department Duties

- ❖ Pretreatment year April 1- March 31
- ❖ 10 entities under our Industrial Pretreatment Permitting Program classified as SIU
- ❖ Significant Industrial Users
  - Rich Products/ Sea Pack
  - Trico
  - National Electric Coil
- ❖ Industrial users
  - Manufacturing facilities
  - Medical centers and Dentistry's
  - Warehouses
  - Transportation brokers
  - Mechanic shops

# Fats, Oils and Grease (FOG)



# What is FOG?

**Fats**

**Oils**

**Grease**

- **Baking goods**
- **Butter, lard, shortening**
- **Cooking oil**
- **Fats and oil from cooked meats**
- **Food scraps (solids)**
- **Gravy**
- **Mayonnaise**
- **Salad dressing**
- **Sauces**
- **Dairy Products**

# The Effects of FOG

- Causes of sewer backups and/or blockages which may cause sanitary sewer overflows (SSOs)
- SSO violations
- Costly to clean up
- Odor, nuisance, health hazards and environmental impact
- May require plumbing services



# Service Request Calls (SRC)

## Historical Data

Service Request Calls due to Grease in Residential and Commercial Areas:

- Brownsville experienced 731 SRC's in 2012 Prior to the SSO Initiative Program
- By 2016 the yearly average of SRC's was reduced to 417
- The yearly number of SRC's has been steadily decreasing since!
- 2020: 130
- 2021: 184
- 2022: 171
- 2023: 205
- 2024: 76 Service Request Calls (as of April 30th)

Since 2013, the number of SR Calls has been reduced by upwards of 85%



# TCEQ & BPUB SSO Agreement / SSO Initiative

## TCEQ SSO Agreement requirements

- Inspected ~70% of all grease interceptors/traps within the City of Brownsville
- Annual inspections for 2023: 715 unique inspections (not including follow ups)
- \* Quarterly reporting to TCEQ - SSO Questionnaire: Response to SR Calls (Educational Fliers), Inspections/NOV/Approvals, Presentations, Staff Training, etc.
- \* Public Outreach initiatives - FOG Best Management Practices (BMP's)
  - Workshops/Public Presentation
  - Newspaper/Website
  - Customer Site Visits – Recommend BMP's
  - Billboards (F.O.G Info)

# SR Calls – Grease in Sewer System





# SR Calls – Grease in Sewer System





# SR Calls – Grease in Sewer System





# SR Calls – SSO Events



# Categorizing FOG

## **Residential**



Domestic  
Not Regulated

## **Commercial**



Non-Domestic  
Regulated



# Residential FOG

Fats, Oils, and Grease are widely considered to be the leading cause of sewer problems

- ❖ Identify areas with sewer-grease problems
- ❖ Offer Outreach Presentations to community
- ❖ Door to door distribution of door hangers
- ❖ Reduce number of Sanitary Sewer Overflows (SSOs)

# Best Management Practices (BMP)

## Reducing FOG

- ❖ Wipe or scrape dishes before washing
- ❖ Remove grease or oil from pans with paper towel before washing
- ❖ Dispose of food scraps in trash
- ❖ Garbage disposals do not remove FOG
- ❖ Never pour grease down the drain
- ❖ Collect all cooking grease and liquid oils from pots, pans, and fryers into a covered container
- ❖ Encourage neighbors and friends to help keep fats, oils and grease out of the sewer system





# Disposable Not Flushable



Trash the wipes  
Not your plumbing

- ❖ Convenience wipes are not “Flushable”, including:
  - Baby wipes
  - Hygienic wipes
  - Cleaning and disinfectant wipes
  - Toilet bowl scrubbers
  - Paper towels

# Wipes, Rags & Fibers at BPUB Lift Stations



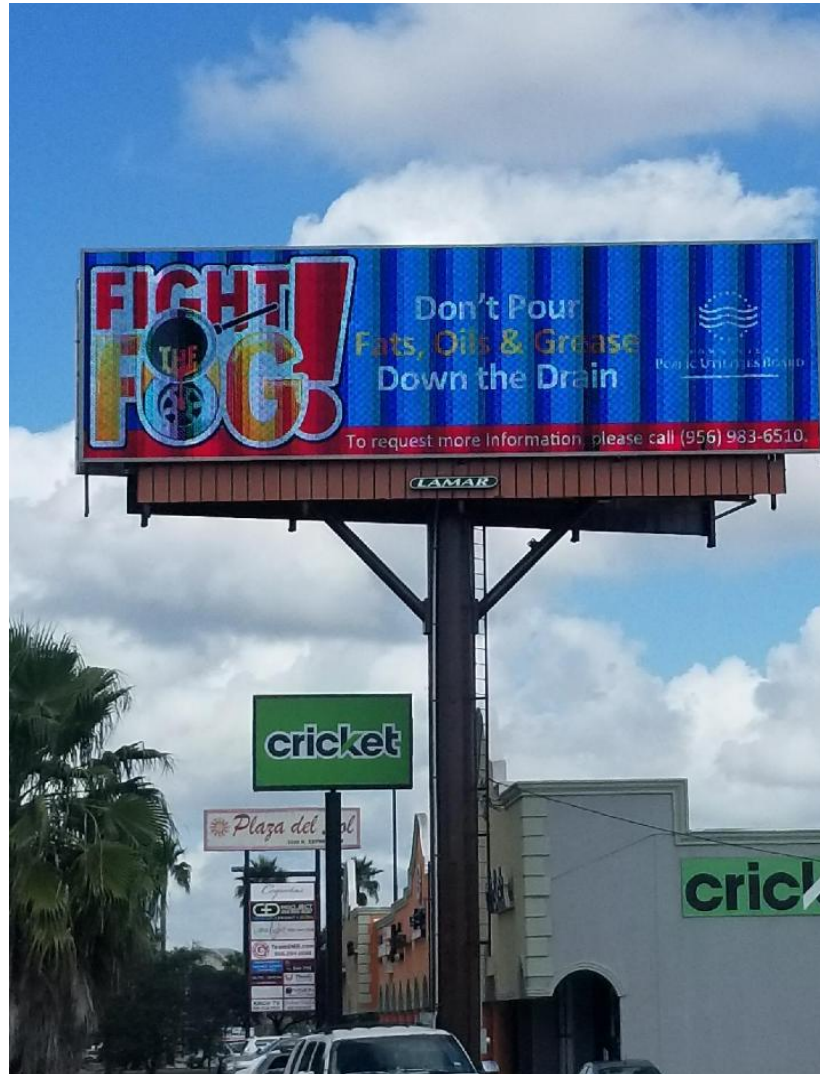
- ❖ Pump trips due to debris
- ❖ Actuation floats weighed down by FOG and fiber material
- ❖ Foreign material
- ❖ Causes Sanitary Sewer Overflows (SSOs)

# B PUB Public Outreach

The collage illustrates various public outreach initiatives by the Brownsville Public Utilities Board (B PUB). It includes a video on the by-products of cooking (fats, oils, and grease), a website page featuring 'Hector the Inspector' as a public ambassador, search results for FOG campaigns, and a video about employee availability for presentations.



# BPUB Public Outreach





# BPUB Public Outreach





# BPUB Public Outreach



**Save Your Drains  
Bag the Grease**

**Grease is a Problem**  
Grease makes its way into city sanitary pipes when you dispose of cooking products such as oil, butter, dairy products, and other products used in everyday cooking through your kitchen sink.

**How Grease Affects You!**  
Grease disposed through your kitchen sink clogs drains and creates sewer backups. Blocked sewer pipes cause raw sewage overflow in your house, your neighbor's house, parks & streets. Commercial kitchen or cooking staff should be especially vigilant about disposing of grease properly. Grease may lead to an expensive cleanup and plumbing repair bill that must be paid by you.

**How to prevent it?**  
**WIPE** or scrape your dishes before washing!  
**REMOVE** grease or oil from your pans with a paper towel before washing.  
**DISPOSE** of food scraps in the trash, and minimize garbage grinder usage.  
**NEVER** pour grease or oil down the drain.

**Keep your drains Grease Free**  
Cool down grease and collect it in a container. Then dispose of it in the trash. For more information, please call the Grease Abatement Program at (956) 983-6515.

**BROWNSVILLE  
PUBLIC UTILITIES BOARD**



## Watch what you flush

*Disposable does not  
always mean flushable*

When putting them in drains or flushing them down, some materials **get stuck in sewer pipes**. This causes sewer overflows – an unpleasant public health hazard that is prohibited under state and federal regulations.

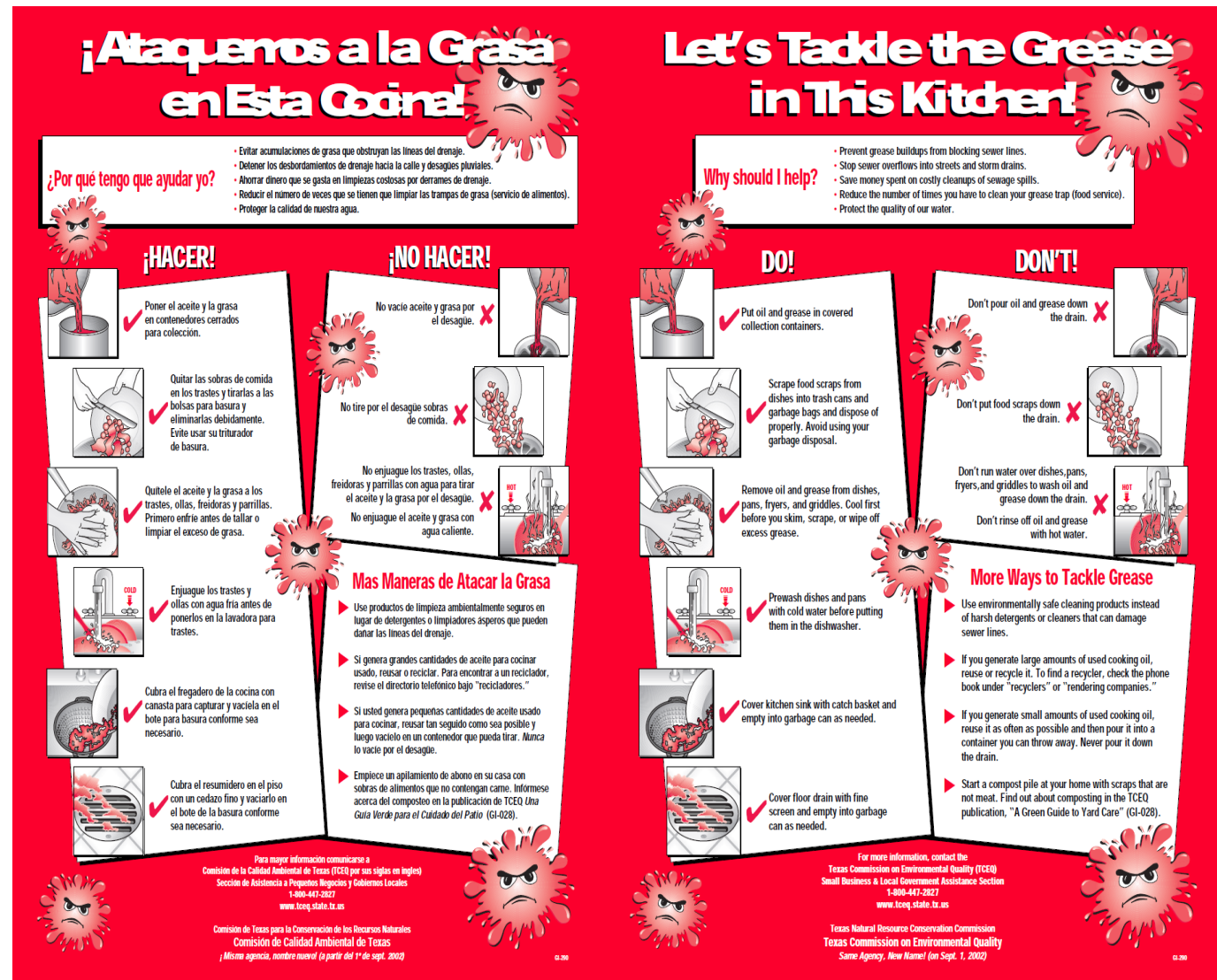
Please **DO NOT** put in drains or flush down:

- Cleaning wipes and baby wipes, they do not dissolve
- Paper towels
- Kitty litter
- Plastic or latex items
- Needles

*Thank you for being kind to your sewer lines.*



1425 Robinhood Drive / P.O. Box 3270 • Brownsville, Texas 78523-3270 • [www.brownsville-pub.com](http://www.brownsville-pub.com)



**¡Ataquemos a la Grasa en Esta Cocina!**

**¿Por qué tengo que ayudar yo?**

- Evitar acumulaciones de grasa que obstruyan las líneas del drenaje.
- Detener los desbordamientos de drenaje hacia la calle y desagües pluviales.
- Ahorrar dinero que se gasta en limpiezas costosas por derrames de drenaje.
- Reducir el número de veces que se tienen que limpiar las trampas de grasa (servicio de alimentos).
- Proteger la calidad de nuestra agua.

**¡HACER!**

- ✓ Poner el aceite y la grasa en contenedores cerrados para colección.
- ✓ Quitar las sobras de comida en los trastes y tirarlos a las bolsas para basura y eliminarlos debidamente. Evite usar su triturador de basura.
- ✓ Quitele el aceite y la grasa a los trastes, ollas, freidoras y parrillas. Primero enfríe antes de tallar o limpiar el exceso de grasa.
- ✓ Enjuague los trastes y ollas con agua fría antes de ponerlos en la lavadora para trastes.
- ✓ Cubra el fregadero de la cocina con canasta para capturar y vacíela en el bote para basura conforme sea necesario.
- ✓ Cubra el resumiendo en el piso con un cedazo fino y vacíelo en el bote de la basura conforme sea necesario.

**¡NO HACER!**

- ✗ No vacíe aceite y grasa por el desagüe.
- ✗ No tire por el desagüe sobras de comida.
- ✗ No enjuague los trastes, ollas, freidoras y parrillas con agua para tirar el aceite y la grasa por el desagüe.
- ✗ No enjuague el aceite y la grasa con agua caliente.

**Mas Maneras de Atacar la Grasa**

- ▶ Use productos de limpieza ambientalmente seguros en lugar de detergentes o limpiadores asperos que pueden dañar las líneas del drenaje.
- ▶ Si genera grandes cantidades de aceite para cocinar usado, reusar o reciclar. Para encontrar a un reciclador, revise el directorio telefonico bajo "recicladores."
- ▶ Si usted genera pequeñas cantidades de aceite usado para cocinar, reusar tan seguido como sea posible y luego vacíelo en un contenedor que pueda tirar. Nunca lo vacíe por el desagüe.
- ▶ Emplee un apilamiento de abono en su casa con sobras de alimentos que no contengan carne. Infórmese acerca del composteo en la publicación de TCEQ Una Guía Verde para el Ciudadano del Patio (GI-028).

Para mayor información comuníquese a:  
Comisión de la Calidad Ambiental de Texas (TCEQ) por sus siglas en inglés  
Sección de Asistencia a Pequeños Negocios y Gobiernos Locales  
1-800-447-2827  
[www.tceq.state.tx.us](http://www.tceq.state.tx.us)

Comisión de Texas para la Conservación de los Recursos Naturales  
Comisión de Calidad Ambiental de Texas  
¡Misma agencia, nombre nuevo! (a partir del 1º de sept. 2002)

**Let's Tackle the Grease in This Kitchen!**

**Why should I help?**

- Prevent grease buildups from blocking sewer lines.
- Stop sewer overflows into streets and storm drains.
- Save money spent on costly cleanups of sewage spills.
- Reduce the number of times you have to clean your grease trap (food service).
- Protect the quality of our water.

**DO!**

- ✓ Put oil and grease in covered collection containers.
- ✓ Scrape food scraps from dishes into trash cans and garbage bags and dispose of properly. Avoid using your garbage disposal.
- ✓ Remove oil and grease from dishes, pans, fryers, and griddles. Cool first before you skim, scrape, or wipe off excess grease.
- ✓ Prewash dishes and pans with cold water before putting them in the dishwasher.
- ✓ Cover kitchen sink with catch basket and empty into garbage can as needed.
- ✓ Cover floor drain with fine screen and empty into garbage can as needed.

**DON'T!**

- ✗ Don't pour oil and grease down the drain.
- ✗ Don't put food scraps down the drain.
- ✗ Don't run water over dishes, pans, fryers, and griddles to wash oil and grease down the drain.
- ✗ Don't rinse off oil and grease with hot water.

**More Ways to Tackle Grease**

- ▶ Use environmentally safe cleaning products instead of harsh detergents or cleaners that can damage sewer lines.
- ▶ If you generate large amounts of used cooking oil, reuse or recycle it. To find a recycler, check the phone book under "recyclers" or "rendering companies."
- ▶ If you generate small amounts of used cooking oil, reuse it as often as possible and then pour it into a container you can throw away. Never pour it down the drain.
- ▶ Start a compost pile at your home with scraps that are not meat. Find out about composting in the TCEQ publication, "A Green Guide to Yard Care" (GI-028).

For more information, contact the  
Texas Commission on Environmental Quality (TCEQ)  
Small Business & Local Government Assistance Section  
1-800-447-2827  
[www.tceq.state.tx.us](http://www.tceq.state.tx.us)

Texas Natural Resource Conservation Commission  
Texas Commission on Environmental Quality  
Same Agency, New Name! (on Sept. 1, 2002)

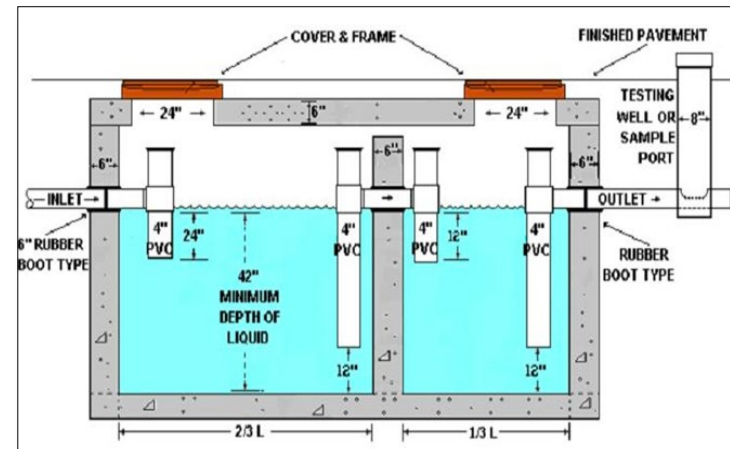
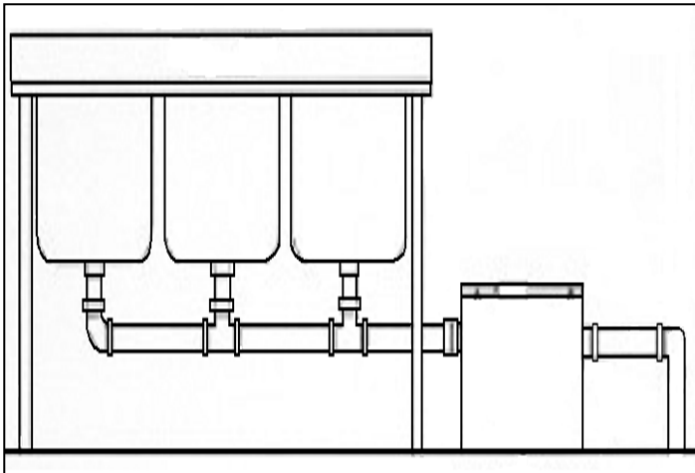
# Commercial FOG

## City of Brownsville Non-Domestic Wastewater Pretreatment Ordinance No. 2020-795-G

- Regulate generation and disposal of FOG and any type of petroleum-based pollutants.
- 1060 Food Service Establishments (FSEs)
- Objectives:
  - ✓ Reduce number of Sanitary Sewer Overflows (SSOs)
  - ✓ Reduce loading on POTW
  - ✓ Comply with local, federal and state regulations

*Applies to non-domestic users discharging into BPUB sanitary sewer*

# Commercial FOG Abatement Unit





# Commercial FOG Abatement Unit



# Questions?

*BPUB Pretreatment Department*  
(956) 983-6510



# Integrated Resource Plan

MAY 15, 2024

# Integrated Resource Plan

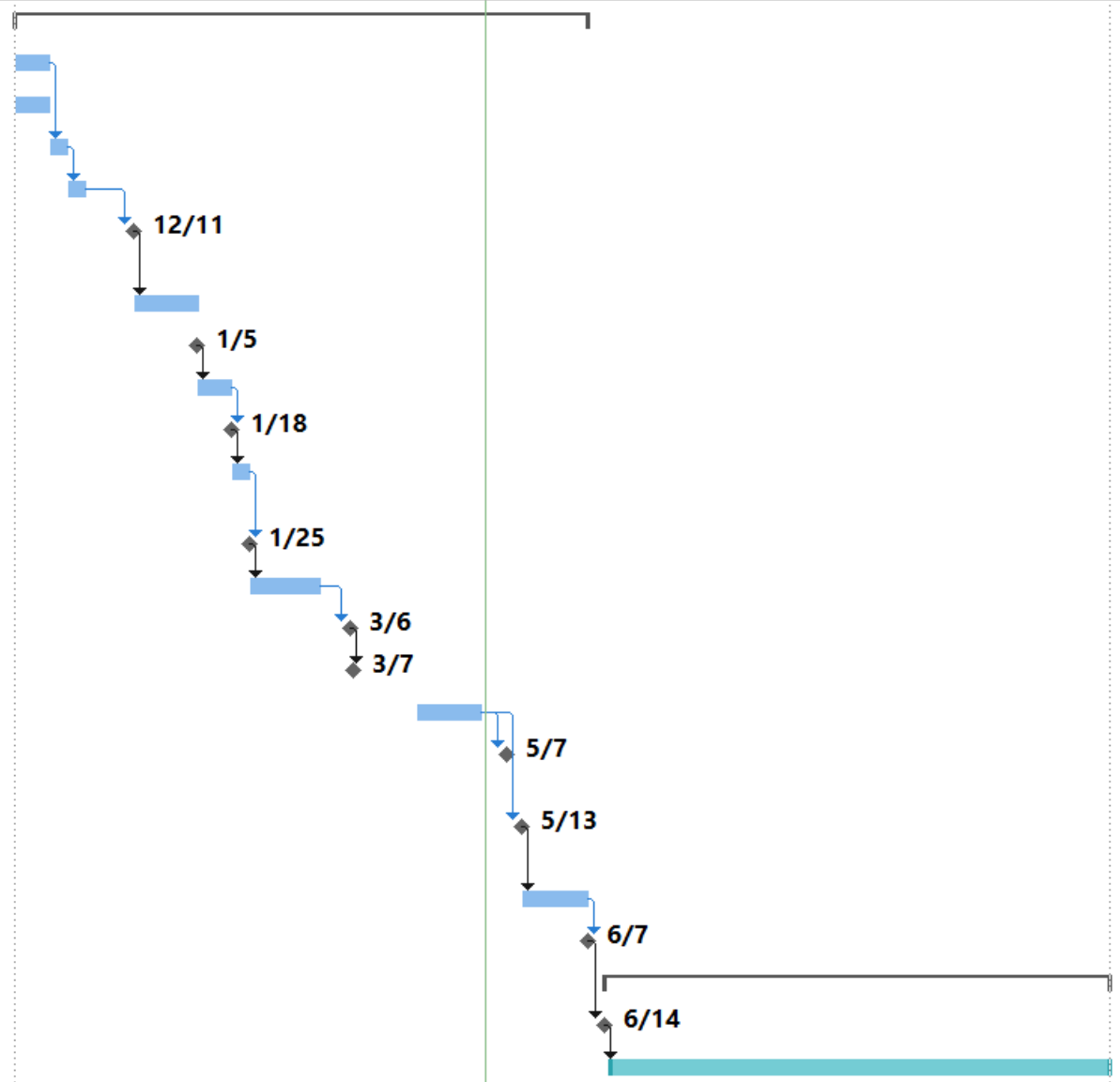
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An IRP is a planning tool. The IRP consists of:

1. Long-Term Load Forecast
2. Long-Term Market Price Forecast
3. Assessment of Existing Generation
4. Identify New Potential Resources

# Integrated Resource Plan

<b>▲ RFP</b>	<b>Wed 10/25/23</b>	<b>Fri 6/7/24</b>
Draft RFP	Wed 10/25/23	Tue 11/7/23
Determine direct recipients	Wed 10/25/23	Tue 11/7/23
RFP review by management	Wed 11/8/23	Tue 11/14/23
Refine RFP	Wed 11/15/23	Tue 11/21/23
RFP and timeline presented to Board	Mon 12/11/23	Mon 12/11/23
Refine RFP	Mon 12/11/23	Fri 1/5/24
RFP issued	Fri 1/5/24	Fri 1/5/24
Respondent review time	Fri 1/5/24	Thu 1/18/24
Last day to submit questions	Thu 1/18/24	Thu 1/18/24
Responses to questions prepared	Fri 1/19/24	Thu 1/25/24
Responses to questions issued	Thu 1/25/24	Thu 1/25/24
Respondent proposal prep time	Fri 1/26/24	Thu 2/22/24
Proposals due	Wed 3/6/24	Wed 3/6/24
Proposals acknowledgment	Thu 3/7/24	Thu 3/7/24
Proposals evaluated	Mon 4/1/24	Fri 4/26/24
Present recommendation to Finance Committee	Tue 5/7/24	Tue 5/7/24
Board approval of contract award	Mon 5/13/24	Mon 5/13/24
Contract negotiations	Mon 5/13/24	Fri 6/7/24
Contract Execution	Fri 6/7/24	Fri 6/7/24
<b>▲ Project Execution</b>	<b>Fri 6/14/24</b>	<b>Tue 12/31/24</b>
Kickoff Meeting	Fri 6/14/24	Fri 6/14/24
Conduct project	Mon 6/17/24	Tue 12/31/24



# Integrated Resource Plan

Workshop #1	Introduction and overview to the IRP process/stakeholder interaction
Workshop #2	Review input assumptions and planning analysis methodologies
Workshop #3	Define resource plan and evaluation criteria
Workshop #4	Review resource planning results and short-term action plan

# Questions

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- Discussion



# Power Supply Resource Options

MAY 15, 2024



# Power Supply Resource Economics

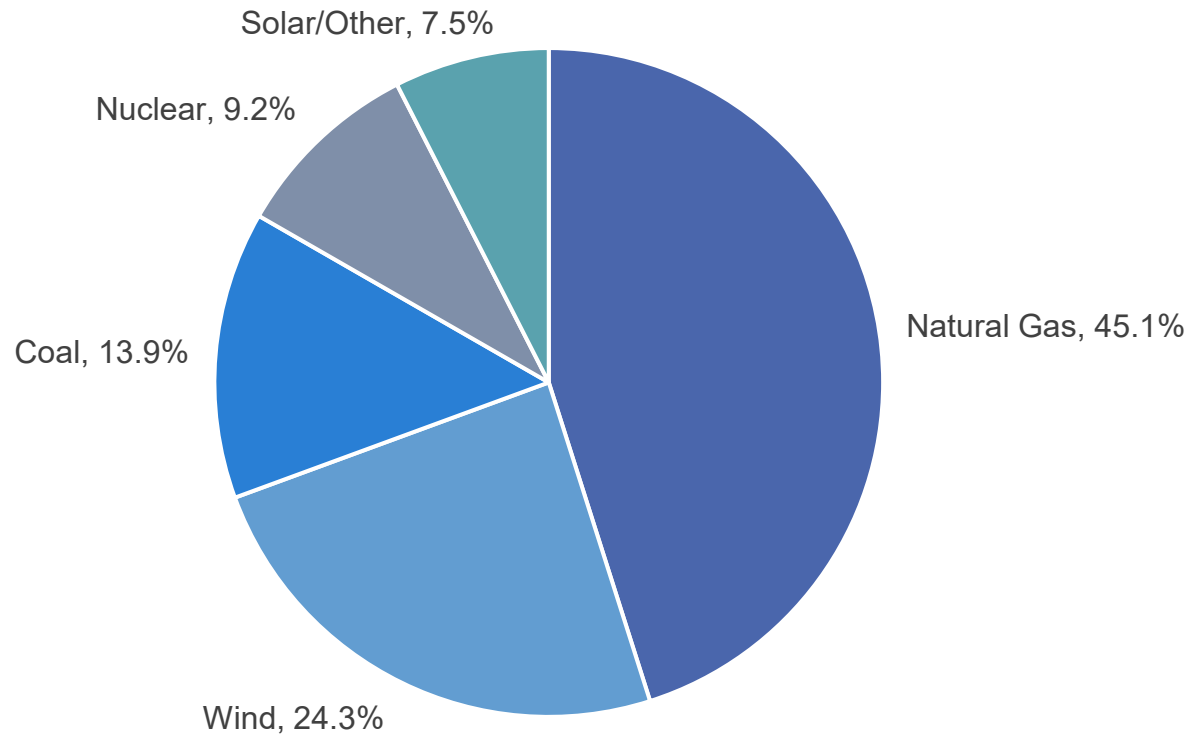
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- ERCOT is responsible for balancing supply (resources) and demand (load)
- BPUB (Load Serving Entity) must provide power to customers – all of which is purchased from the ERCOT wholesale market (Resource Entity)
- BPUB uses the revenue produced from selling power to offset the cost of buying power
- The goal of BPUB's Power Supply portfolio is to provide that power to the customer at the lowest possible cost
- The challenge we are addressing with our power supply resources:

***What combination of resources produces the greatest economic value for BPUB customers?***

# Power Supply Resources in ERCOT

ERCOT Energy Sources - 2023



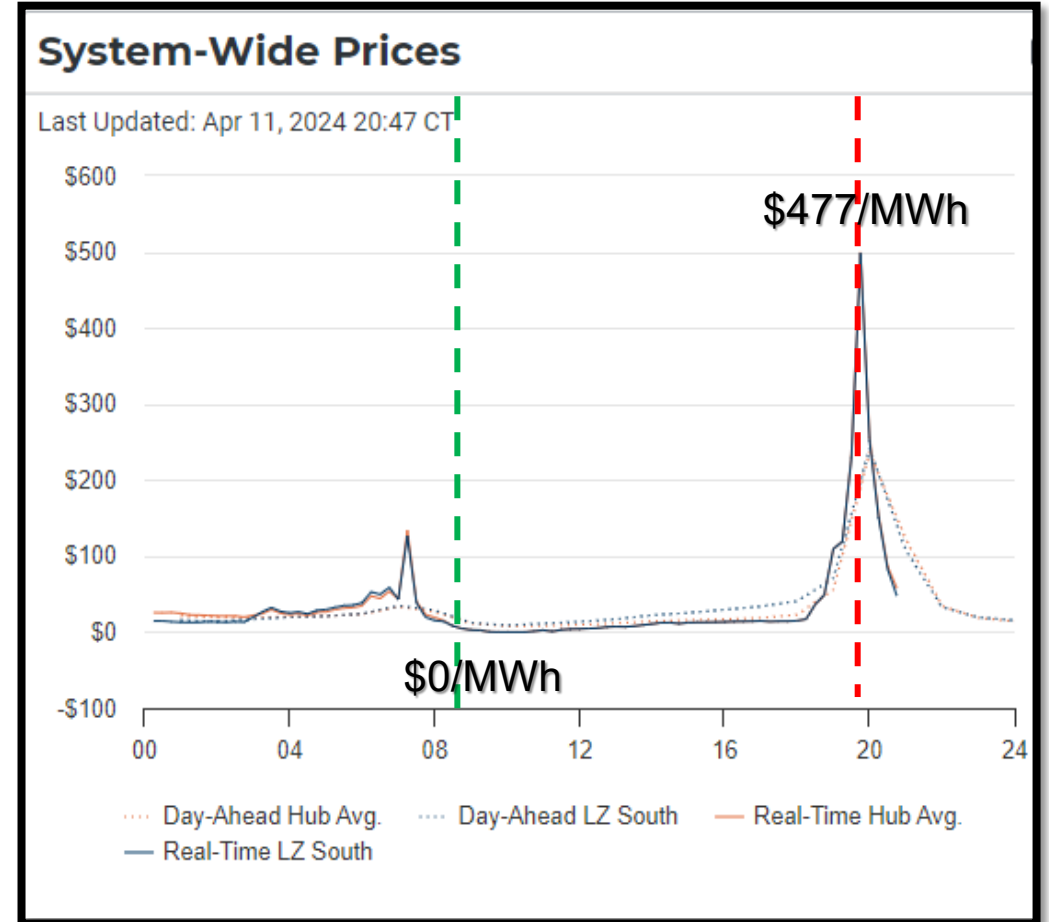
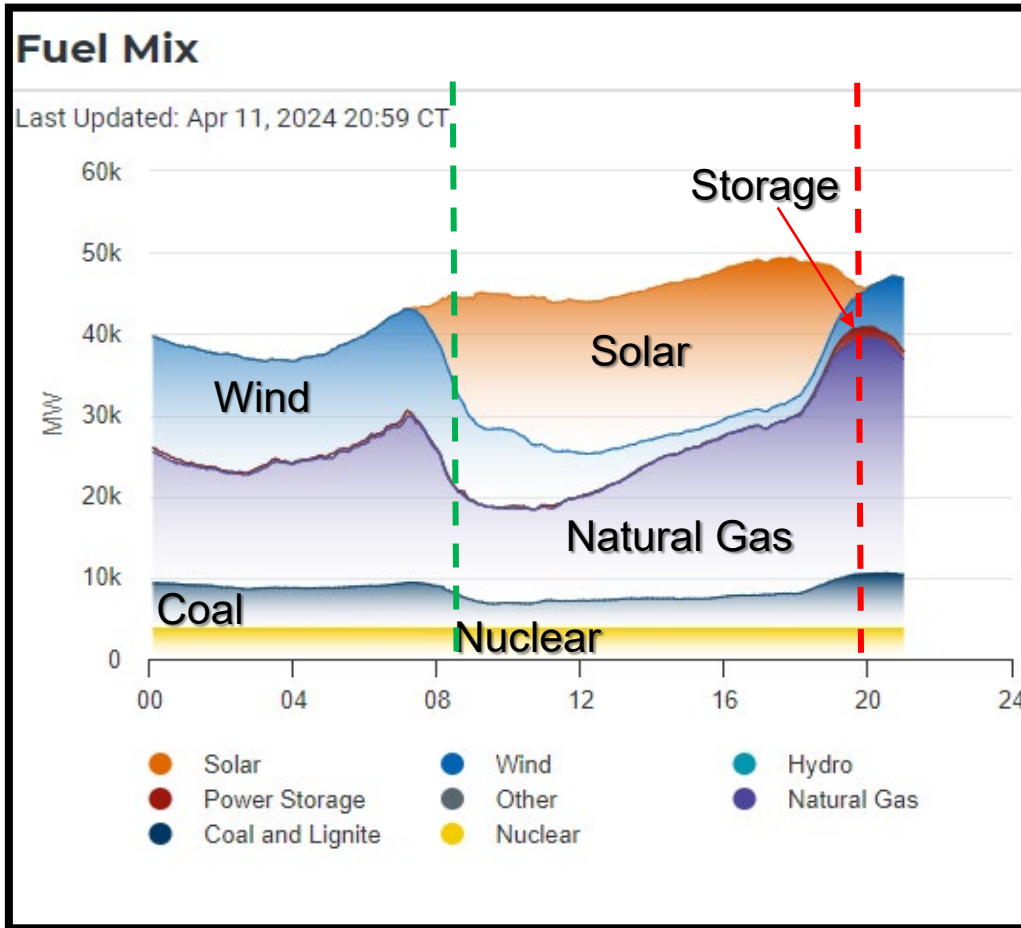
Other includes:

- Solar
- Hydro
- Petroleum coke
- Biomass
- Landfill gas
- Distillate fuel oil
- Net imports

Source: ERCOT

Note: While solar is currently a small portion, it is the fastest growing resource type.

# Power Resource Dispatch in ERCOT



# Power Supply Resource Options

## Advantages/Disadvantages by Production Type

Resource	Advantages	Disadvantages
Natural Gas	Fully dispatchable (controllable), highly reliable	Emissions, volatile price of fuel, environmental regulation risks
Coal	Fully controllable, highly reliable	Emissions, difficult to permit, environmental regulation risks, more expensive to build than natural gas
Nuclear	Minimal emissions, highly reliable	Less operating flexibility, very high development and construction cost, public perceptions, waste management, regulatory risks
Wind	Cheap, availability of credits and other funding support	Not dispatchable, tends to produce more when it's not needed, land-use issues
Solar	Costs are rapidly falling, availability of credits and other funding support, tends to produce when most needed	Not dispatchable, the amount of land needed for utility-scale can cause land-use issues
Battery	Can supplement wind and solar to enhance reliability, cost are rapidly falling, availability of credits and other funding support	Complexity of installation, short duration resource
Demand Side Management	Finding ways to reduce load at peak times can sometimes be the cheapest incremental resource	Complexity in defining and implementing the program, best for commercial customers. Sometimes viewed as ineffective for lower-income customers who may have limited ability to reduce residential usage (very little impact)

# Power Supply Resource Options

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## Advantages/Disadvantages by Development/Contracting Approach

Approach	Advantages	Disadvantages
Self Develop (build)	Autonomy, control	Complexity and development risks, manpower requirements
Partial Ownership of Existing or New Facility	Shared risk, economies of scale of larger facilities, operating responsibility reduced or eliminated	Reduced control, ongoing oversight responsibility, risk of disputes
Power Purchase Agreement (PPA)	Simplicity, fully customizable, fixed price options, eliminates internal operations risk	Risk of supplier default (credit risk)

# Power Supply Resource Options

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## Advantages/Disadvantages by PPA Type

Approach	Advantages	Disadvantages
Fixed price, full requirements (load shaped)	Minimizes price and volume risk, simplicity	May be expensive since the supplier is taking most of the risk, risk of supplier default is higher than other types of PPAs, risk that lower cost options become available (buyers remorse)
Fixed price, fixed volume	Shared risk, economies of scale of larger facilities, operating responsibility reduced or eliminated	Residual volume risk

# Economic Behavior of Resource Types

- Understanding power supply economics starts with understanding ERCOT
- The net power supply costs for any given ERCOT utility is governed by the following general equation:

**Net Power Supply Costs =**

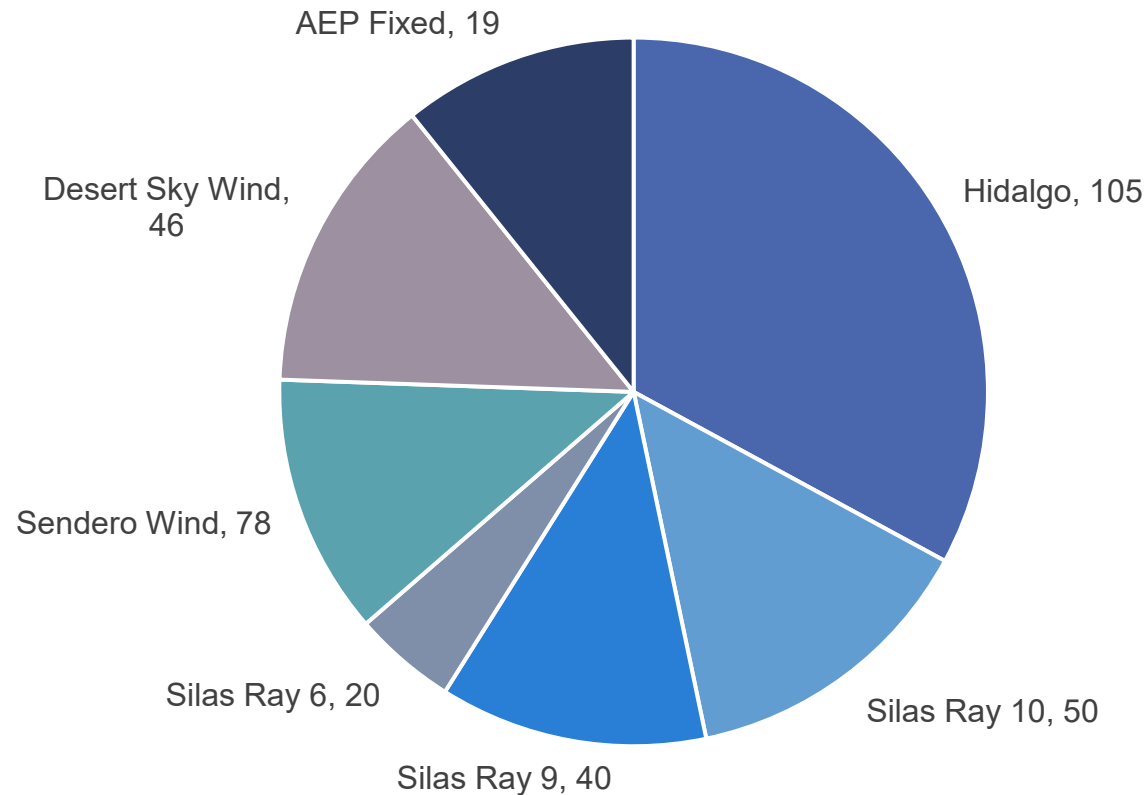
**ERCOT Net Charges      +      Resource Variable Costs      +      Fixed Costs**

ERCOT Net Charges	Resource Variable Costs	Fixed Costs
+ ERCOT fixed charges	Generation Fuel Cost x Heat Rate	Generation Financing Costs
+ Load MWhr x Market Price of Load Zone	Generation Variable Non-Fuel Cost	Generation Depreciation
+ Net Congestion Costs	Purchase Price of PPAs	
- Resource Energy x Market Price at Resource Node		

# BPUB Current Resources

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Nameplate Capacity in Megawatts





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# Questions ???



# Public Comments

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# Next Meeting Date

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JUNE 2024



# Adjournment

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