



# **Waste Management & Recycling Through Transfer Stations, Low-Volume Transfer Stations, and Citizens' Collection Stations**

**Lindsay Ross**

**Municipal Solid Waste Permit Section**

# Topics

1

**Waste Management  
Facility Options**

2

**Application  
Requirements for  
Facilities**

3

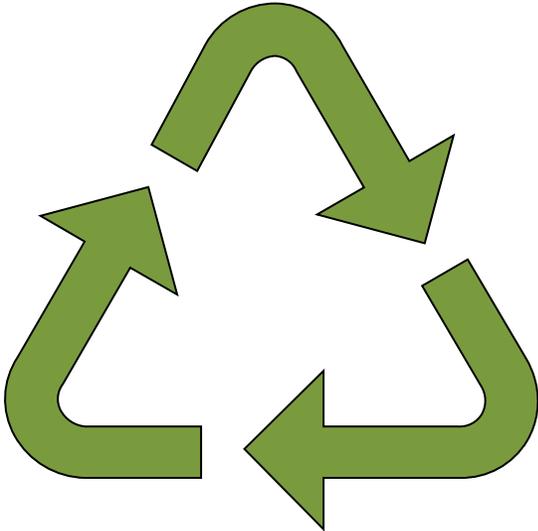
**Hub and Spoke Model**

Benefits of  
implementation

Incorporating  
recycling

Creating a hub  
and spoke  
system

# Waste Management Facility Options



# Optimizing Waste Management Through:

1 Citizens' Collection Stations

2 Low-Volume Transfer Stations

3 Transfer Stations

# Citizens' Collection Station 30 TAC 330.3(21)

**For convenience and exclusive use of local residents**

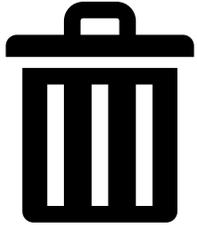
- Not used for commercial and industrial users, or collection vehicles\*

**Ideal for small communities without regular waste collection services**

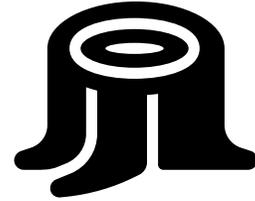
**176 Authorized**



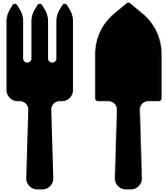
# Wastes Accepted at a Citizens' Collection Station



Household  
Waste



Brush



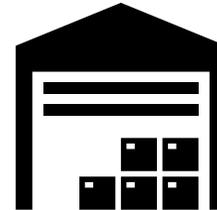
Yard Waste



Furniture



Recyclable  
Materials



Commercial Waste  
in Small Quantities\*

# Managing Waste at a Citizens' Collection Station

30 TAC 330.213

Storage of waste: one or more storage containers, bins, or trailers

Sorting of mixed waste is not allowed

Owner/Operators are responsible for maintaining the facility and ensuring waste is transported to an authorized landfill or transfer station

Annual Reporting Requirement: Operational Status by December 31



# Low-Volume Transfer Station 30 TAC 330.3(86)

**Established to store collected household waste in unincorporated areas**

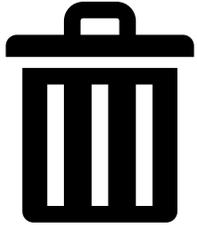
- Cannot be within the extraterritorial jurisdiction of city

**Ideal for rural areas**

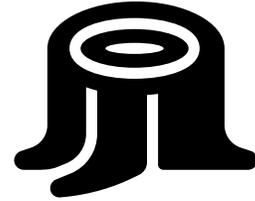
**37 Authorized**



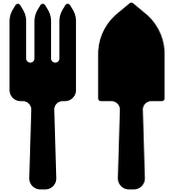
# Wastes Accepted at a Low-Volume Transfer Station



Household  
Waste



Brush



Yard Waste



Furniture



Recyclable  
Materials

# Managing Waste at a Low-Volume Transfer Station

30 TAC 330.11(f)

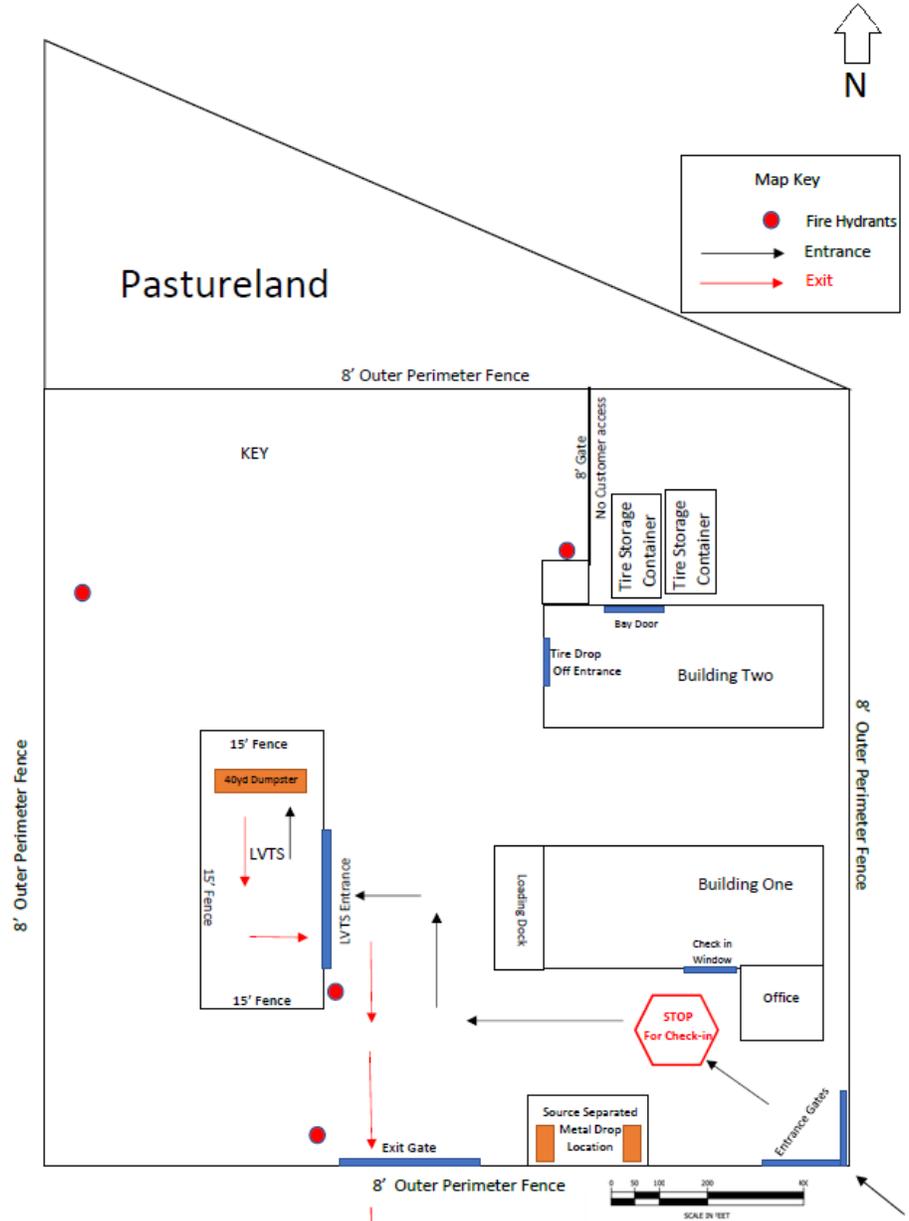
**Limited to a total storage capacity of 40 cubic yards**

**Collected Waste sent off-site to an authorized facility weekly**

**Storage of Waste: One or more storage containers, bins, or trailers**

**New Annual Reporting Requirement:  
Operational Status by December 31**

# Potential Layout of a Low-Volume Transfer Station



# Transfer Stations 30 TAC 330.3(164)

**Established to transfer waste from one transportation unit to another**

- Ideal for communities as an alternative to a landfill

**Transfer Station with a Materials Recovery Operation (30 TAC 330.9(e))**

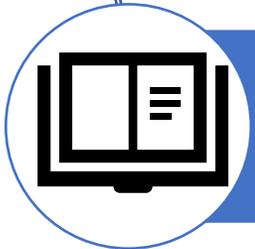
- Registration tier
- Recover recyclable materials from the waste stream



# FY2023 Data for Active Transfer Stations (1 of 2)



103 Active Transfer Stations



37 Permitted



66 Registered

# FY2023 Data for Active Transfer Stations (2 of 2)



65 Government Owned



38 Privately Owned



Diverted a Total of 628,000 Tons of Waste\*

\*Diverted Materials are taken out of the solid waste stream as recyclable materials instead of being disposal of in a landfill.

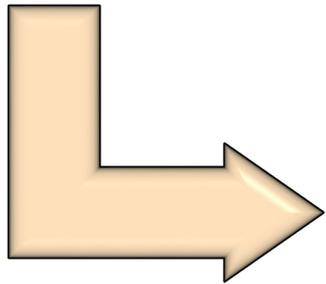
# Total Amount Diverted Waste by Transfer Stations in FY2023 by Waste Category

Waste Category	Waste Diverted (Tons)
Automotive	18.7
Shingles	53.2
Used Oil	90.5
Electronic Equipment	184.7
Tires	983.9
White Goods	1,684
Aluminum	2,910.70
Plastic	7,708.90
Plastic Bottles	14,152.70
Glass	29,453.90
Metal	34,010.70
Yard Waste or Brush	100,989.40
Construction/Demolition Waste	122,770.20
Other Materials	128,327.80
Paper/Cardboard	185,230.80

# Managing Waste at a Transfer Station

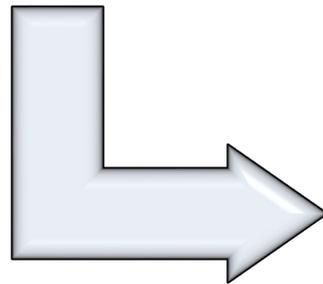
Incoming Waste

- Waste Acceptance Plan: Specific to each facility



Unloading of Waste

- Confined to Small Area



Storage of Waste

- Building, vessel, or container
- Time limits of storage

# Managing Waste

## At a Transfer Station

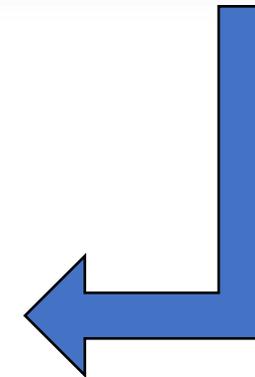
### Transfer Station Entrance



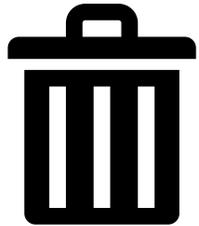
### Loading Tunnel



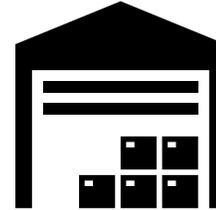
### Tipping Floor



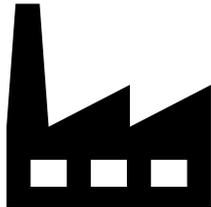
# Wastes Accepted at a Transfer Station



Household  
Waste



Commercial  
Waste



Class 2 and Class 3 Industrial Solid Waste

# Managing Waste at a Transfer Station

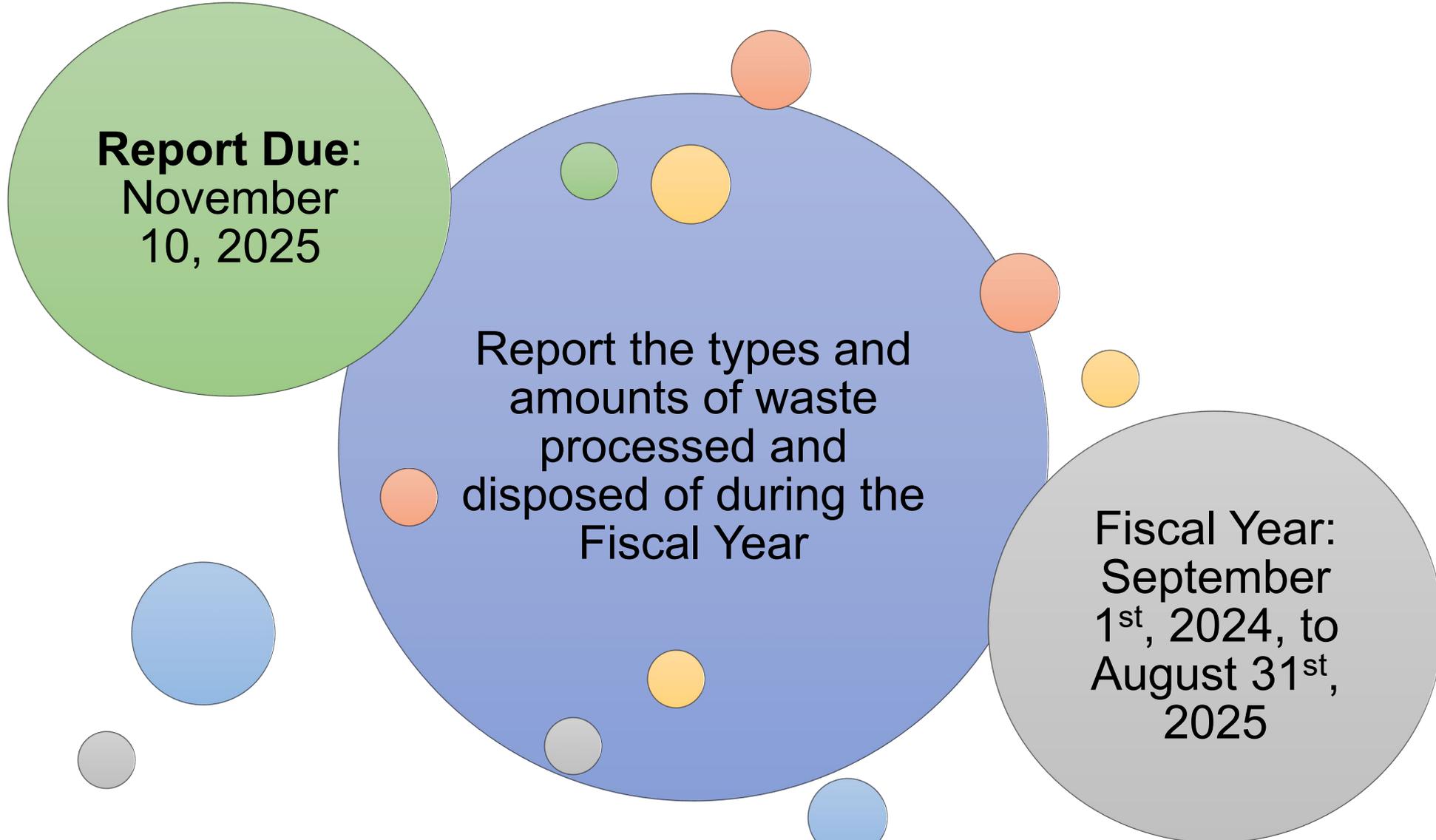
**Transfer Station with a  
Materials Recovery  
Operation\***

Recover 10% or more by weight or weight equivalent of incoming waste stream for reuse or recycling

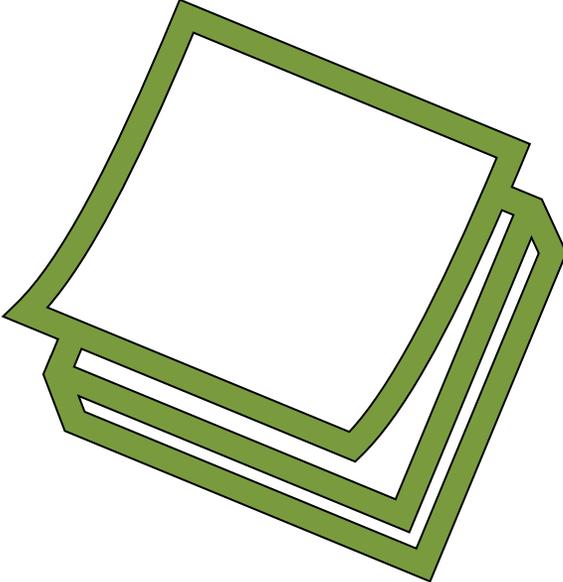
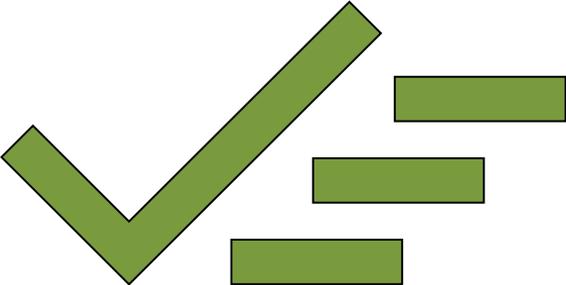
Landfill Distance: 50 miles



# Annual Reporting Requirement for Transfer Stations



# Application Requirements for Each Waste Management Facility Option



# Application Requirements for Citizens' Collection Stations

30 TAC 330.11(e)(1)

**Application Type:  
Notice of Intent (NOI)**

## Required Forms

Core Data Form(s):  
Form TCEQ-10400

Correspondence  
Cover Sheet: Form  
TCEQ-20714

NOI to Operate a  
Citizens' Collection  
Station: Form TCEQ-  
20429

# Application Requirements for Low-Volume Transfer Stations

30 TAC 330.11(f)

**Application Type:**  
Notice of Intent (NOI)

**Required Forms:**

Core Data Form(s):  
Form TCEQ-10400

Correspondence  
Cover Sheet: Form  
TCEQ-20714

NOI to Operate a  
Low-Volume Transfer  
Station: Form TCEQ-  
20370

# **Key Components of the Notice of Intent to Operate a Citizens' Collection Station Form and Low-Volume Transfer Station Form**

# Key Components (1 of 3)

## Facility Information

## Facility Owner Information

- Facility Operator information if different from facility owner

## Property Owner Information\*

- Ensure to provide an additional Core Data Form for the Property Owner if that Property Owner is different from the facility owner

# Key Components (2 of 3)

## Waste Types\*

- Ensure all the waste types the facility will accept are checked and list others if applicable

## Waste Containers

- Reusable or Nonreusable

## Identify how frequent waste will be removed

- At least once per week

# Key Components (3 of 3)

**Identify what authorized facility the waste will be taken to**

- Municipal Solid Waste Landfill or Transfer Station

**Describe how waste will be received, stored, and removed**

**Mail a notice if operating hours will be outside of 7:00 a.m. to 7:00pm, Monday through Friday**

- Citizens' collection station application only

# Additional Requirements for Low-Volume Transfer Stations

## Notify adjacent landowners\* 30 TAC 330.11(f)(3)

- By first-class mail of the intention to operated a Low-Volume Transfer Station and provide documentation

## Provide adjacent property owners list with mailing addresses\*

## Coordination Requirements 30 TAC 330.11(f)(2)

- Coordinate with county authority and provide documentation to ensure compliance with appropriate ordinances

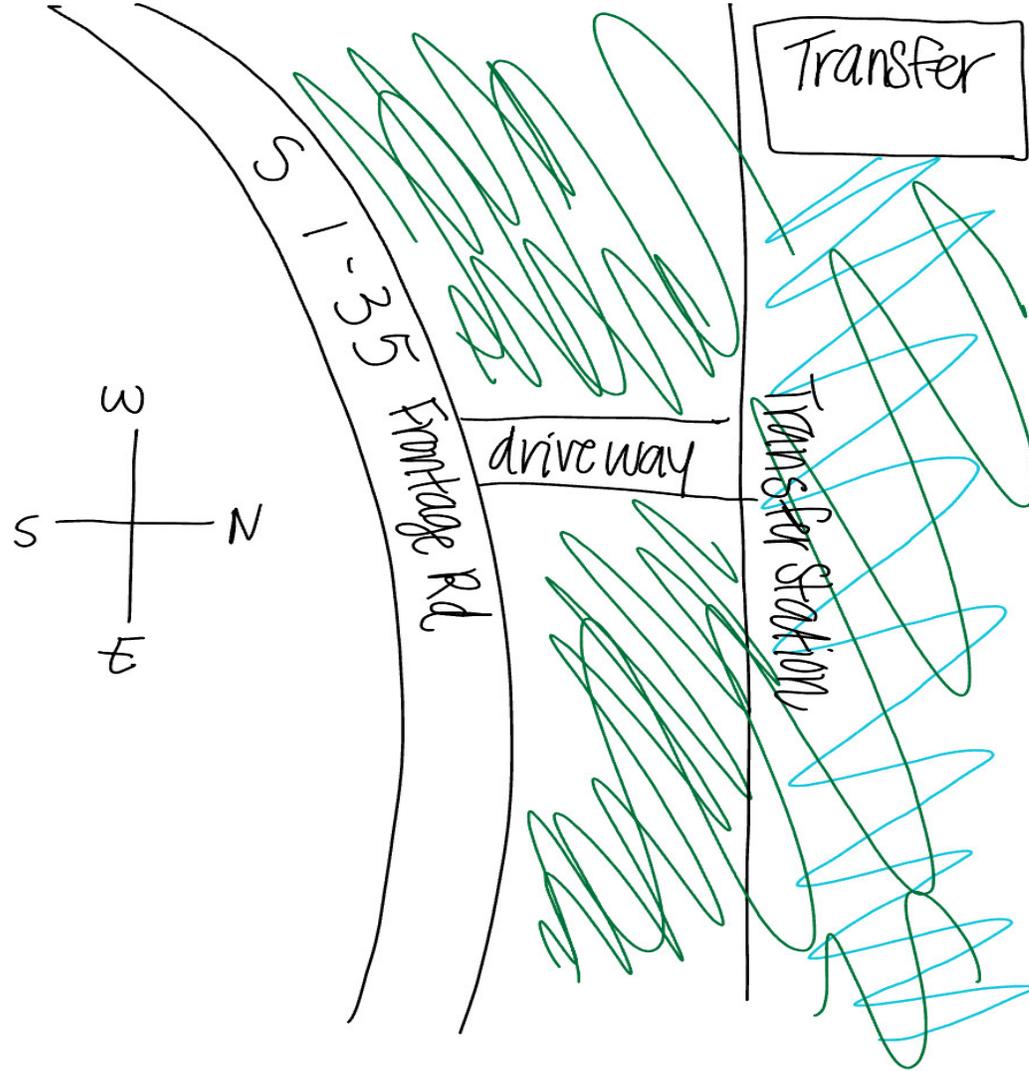
## Identify additional procedures needed for the Closure Plan\*

# Map Requirement Examples for Citizens' Collection Station and Low- Volume Station Applications

# Site Location Map- Deficient Example

for citizens' collection station and low-volume transfer station applications

★ Hand drawn maps should not be submitted



# Site Location Map- Acceptable Example

for citizens' collection station and low-volume transfer station applications

Key Features:

Site location is  shown in relation to nearest major roadway

Clearly identify  property boundary and facility boundary

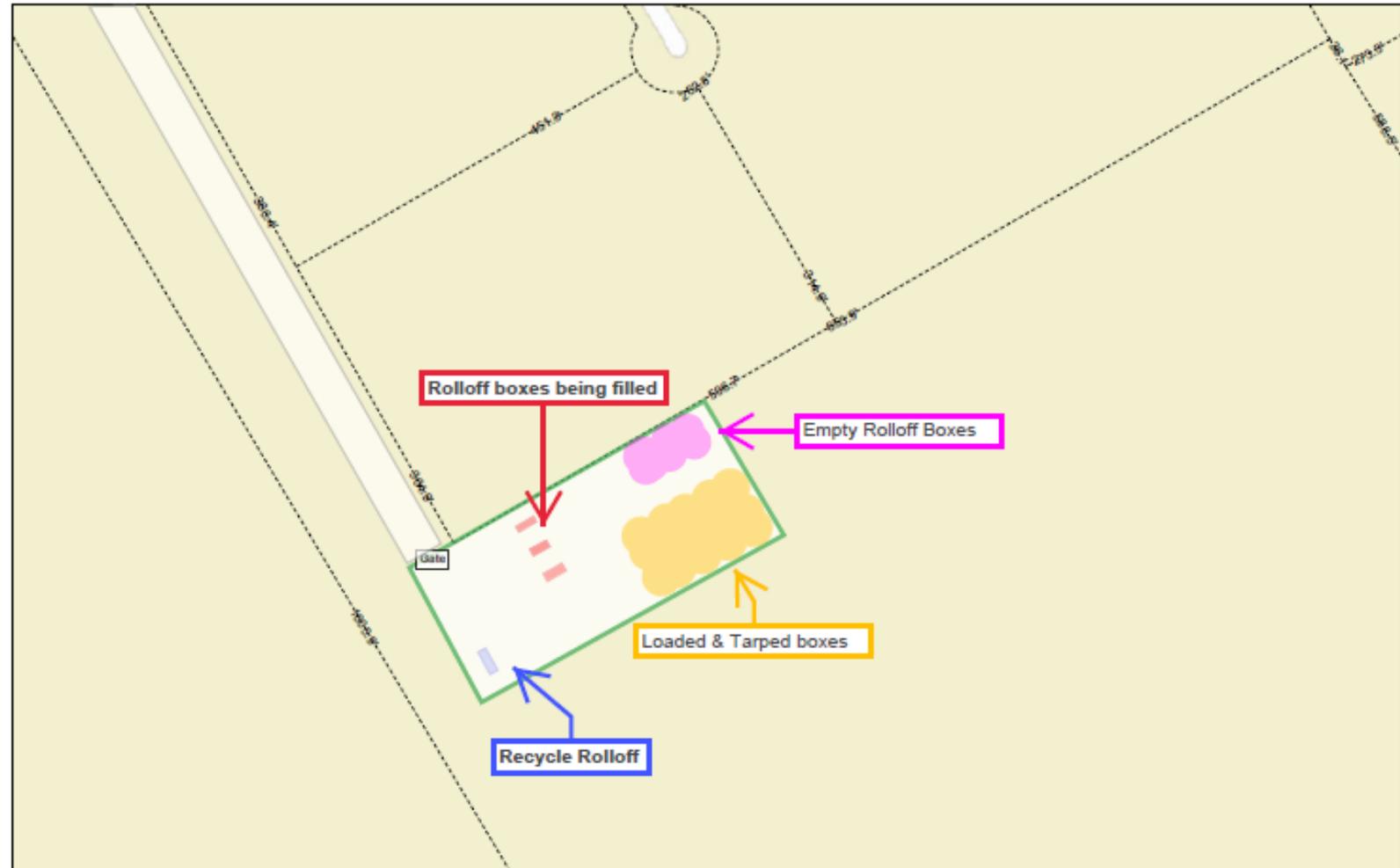


# Facility Operations Map – Acceptable Example 330.11(a)

What will the facility look like after construction?

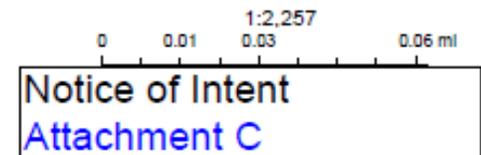
## Key Features:

- North Arrow
- Scale Bar



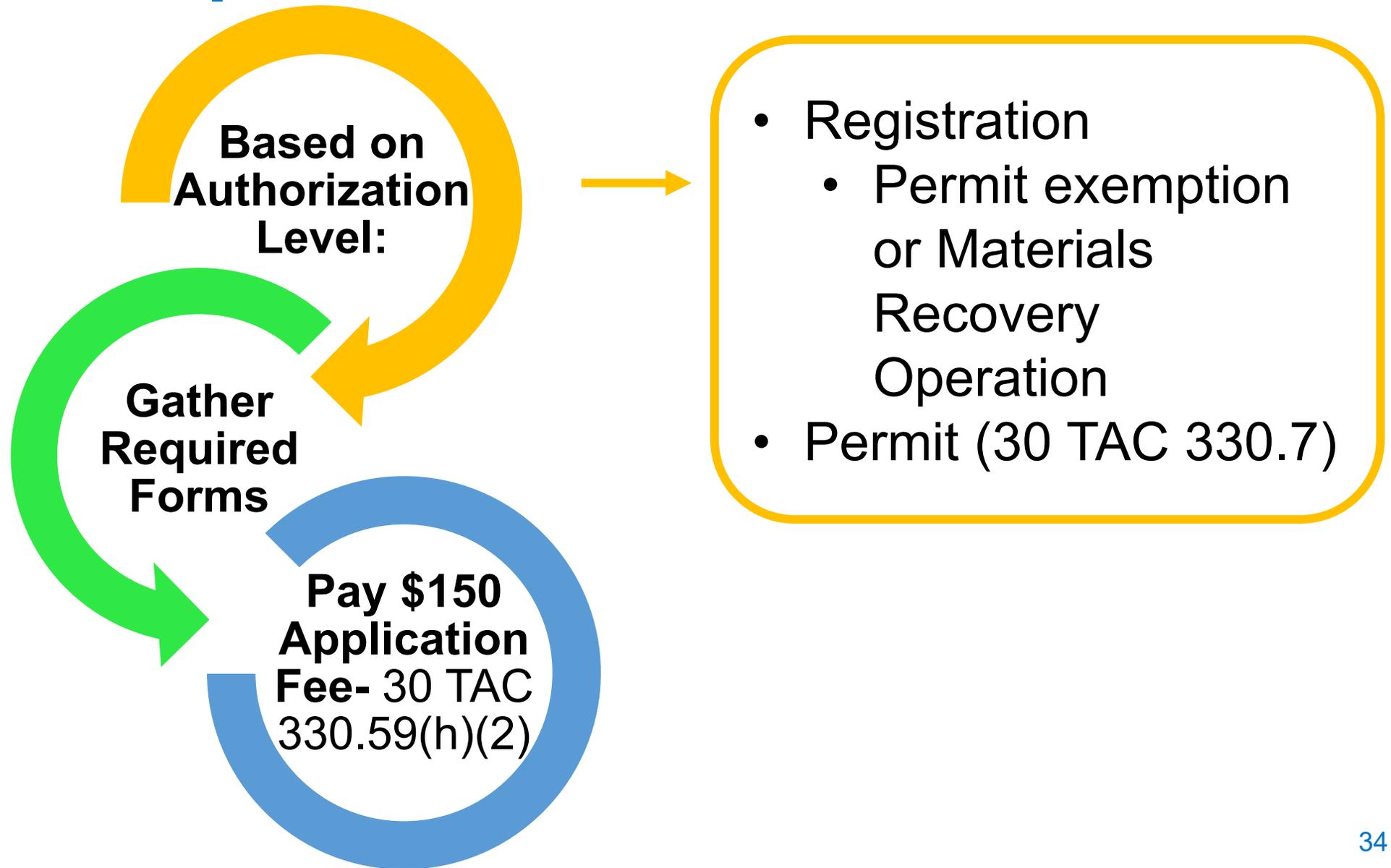
Lat./Long.@ Gate: N 32.011581 W -97.065014

--- Lot Lines  
— Fenced & Gated Facility



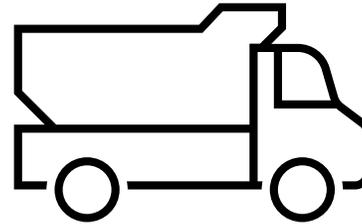
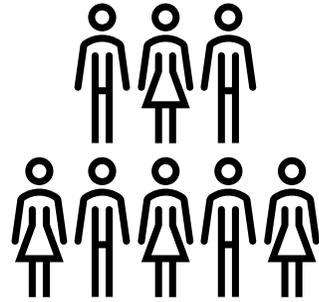
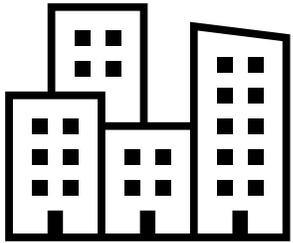
# Key Components of a Transfer Station Application

# Application Requirements for a Transfer Station



# Qualifying for a Registration Level Transfer Station Authorization

Meet one of the following criteria from 30 TAC 330.9(b)(1)-(4):



serve a municipality with a population of < 50,000

serve a county with a population of < 85,000

transfers or will transfer 125 tons per day or less

located within the permitted boundaries of an MSW landfill

# Qualifying for a Registration Level Transfer Station Authorization 30 TAC 330.9(e)(1)-(2)



## Implement a materials recovery operation:

- recover 10% or more by weight or weight equivalent of the waste stream for reuse or recycling

## Transfer the remaining waste to a landfill

- within 50 miles from the facility

# Required Forms for the Transfer Station Application



Part I Application Form for a Permit or Registration: Form TCEQ-00650



Core Data Form(s)



Correspondence Cover Sheet



Public Involvement Plan



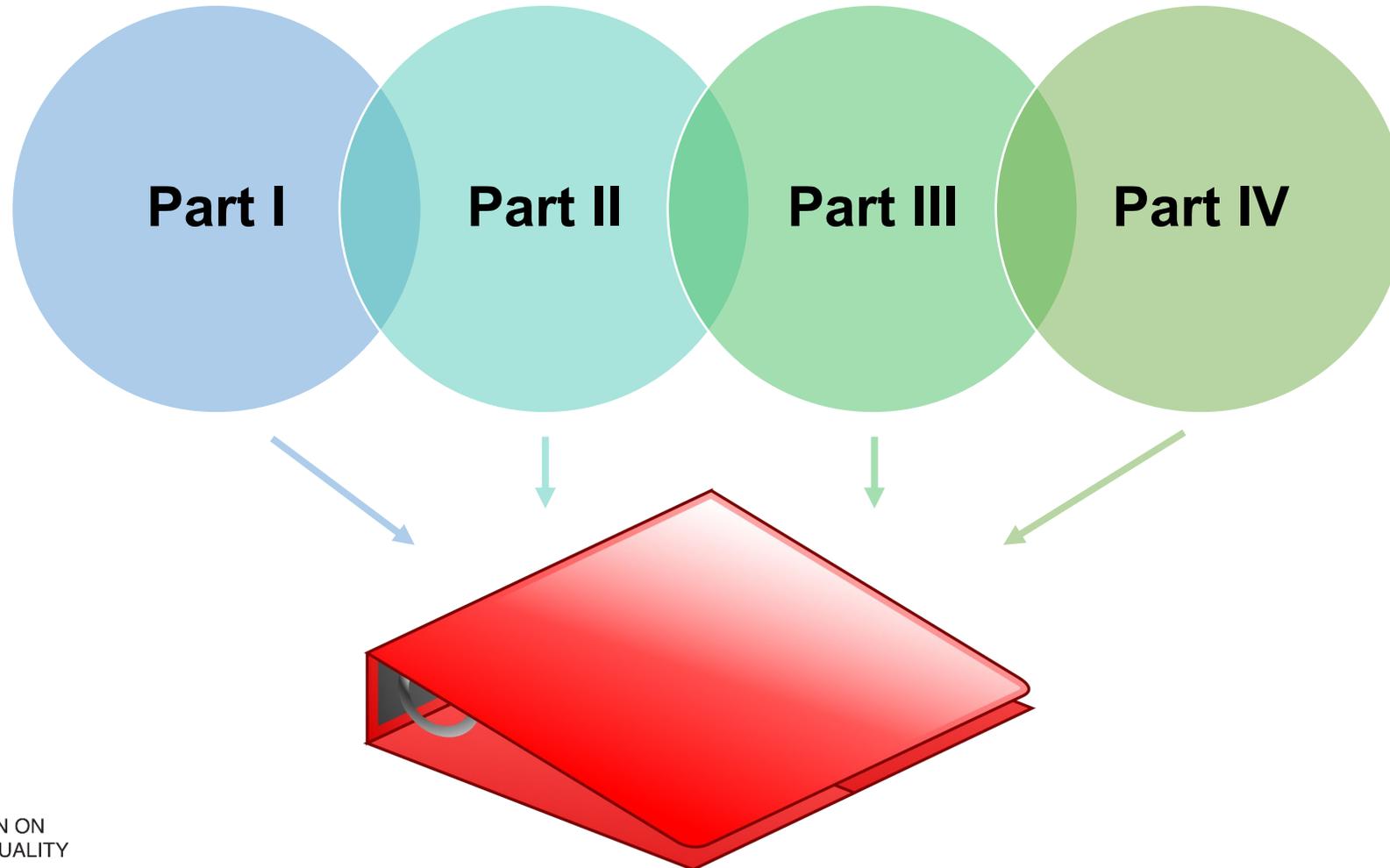
MSW Application Checklist



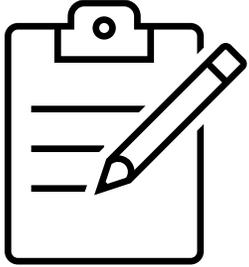
Permit Only: Plain Language Application Summary

# Key Components of a Transfer Station Application (1 of 6)

In addition to the required forms the application should present information required by 30 TAC Chapter 330 Subchapter B



# Key Components of a Transfer Station Application (2 of 6)



## Permit and application procedures 30 TAC 330.57

- Preparation and application format

## Part I 30 TAC 330.59

- Facility Information
- Required Attachments



## Part II 30 TAC 330.61

- Describe existing conditions and character of the facility and surrounding area

# Key Components of a Transfer Station Application (3 of 6)

Submit documentation demonstrating coordination with other governmental entities:



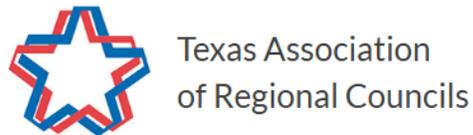
## Texas Department of Transportation 30 TAC 330.61(i)(4)

- For traffic and location restrictions



## Texas Historical Commission 30 TAC 330.61(o)

- Review for compliance with Natural Resources Code, Chapter 191, Texas Antiquities Code



## Council of Governments 30 TAC 330.61(p)

- Submit Parts I and II for review

# Key Components of a Transfer Station Application (4 of 6)



## Part III 30 TAC 330.63

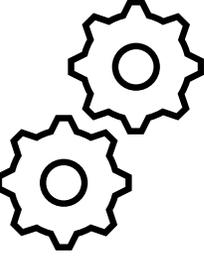
- Design information, detailed investigative reports, schematic designs of facility



## Cost estimates and financial assurance 30 TAC 330.63(j), 330.505

- Costs of closing the facility

# Key Components of a Transfer Station Application (5 of 6)



## Part IV: Site Operating Plan 30 TAC 330.65

- Describes daily operations
- Highlight design features, equipment, and processes



## Materials Recovery Operation 30 TAC 330.219(b)(9)

- Maintain records that document at least 10 percent of the incoming waste was recovered and that the recovered materials were reused or recycled

# Key Components of a Transfer Station Application (6 of 6)



## Obtaining other permits as applicable 30 TAC 330.55

- air emissions, stormwater, and wastewater permits as applicable



## Public Notice Requirement

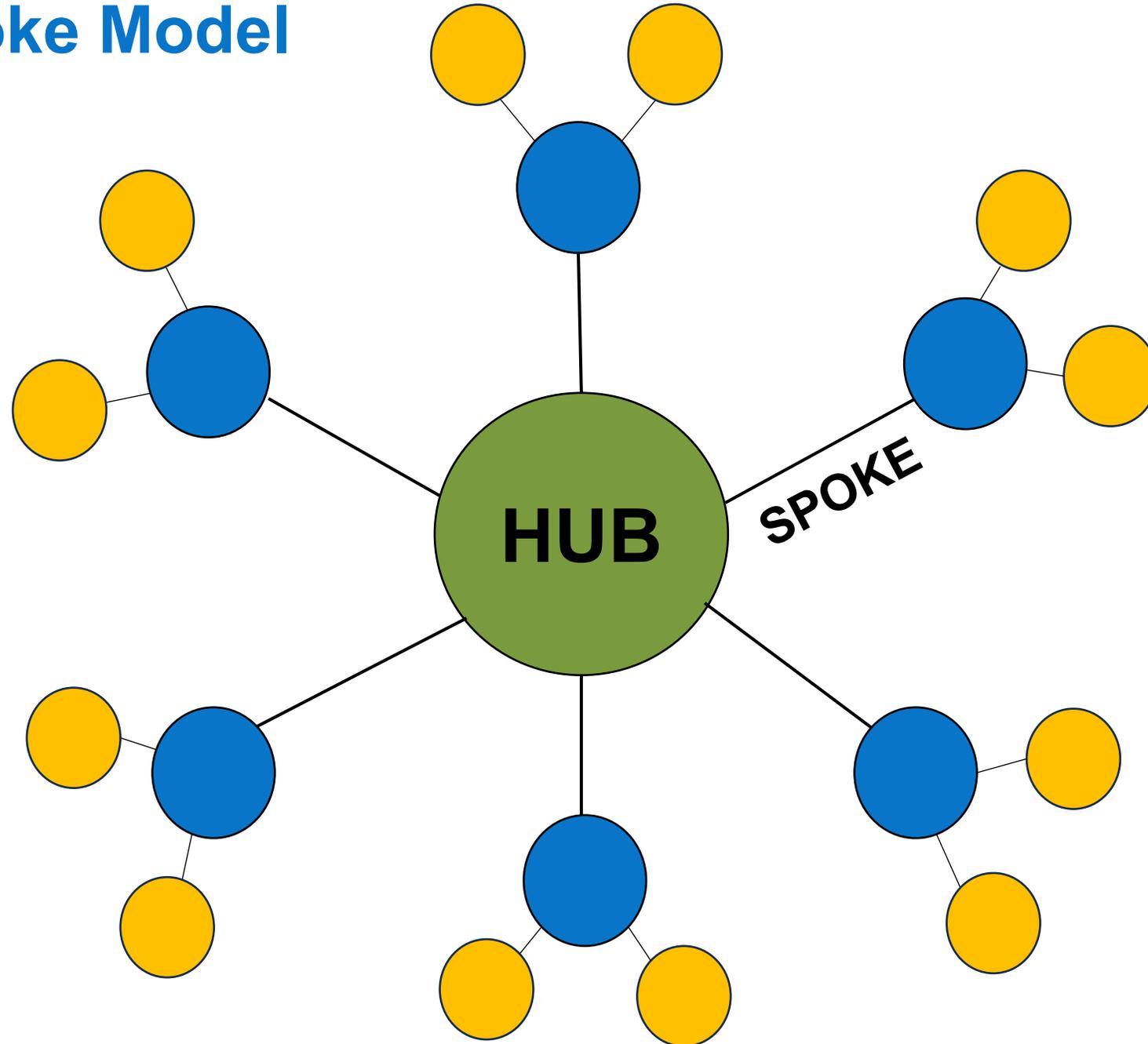
### Permit: Two Notices

1. Notice of Receipt of Application and Intent to Obtain Municipal Solid Waste Permit
2. Notice of Application and Preliminary Decision for a Municipal Solid Waste Permit

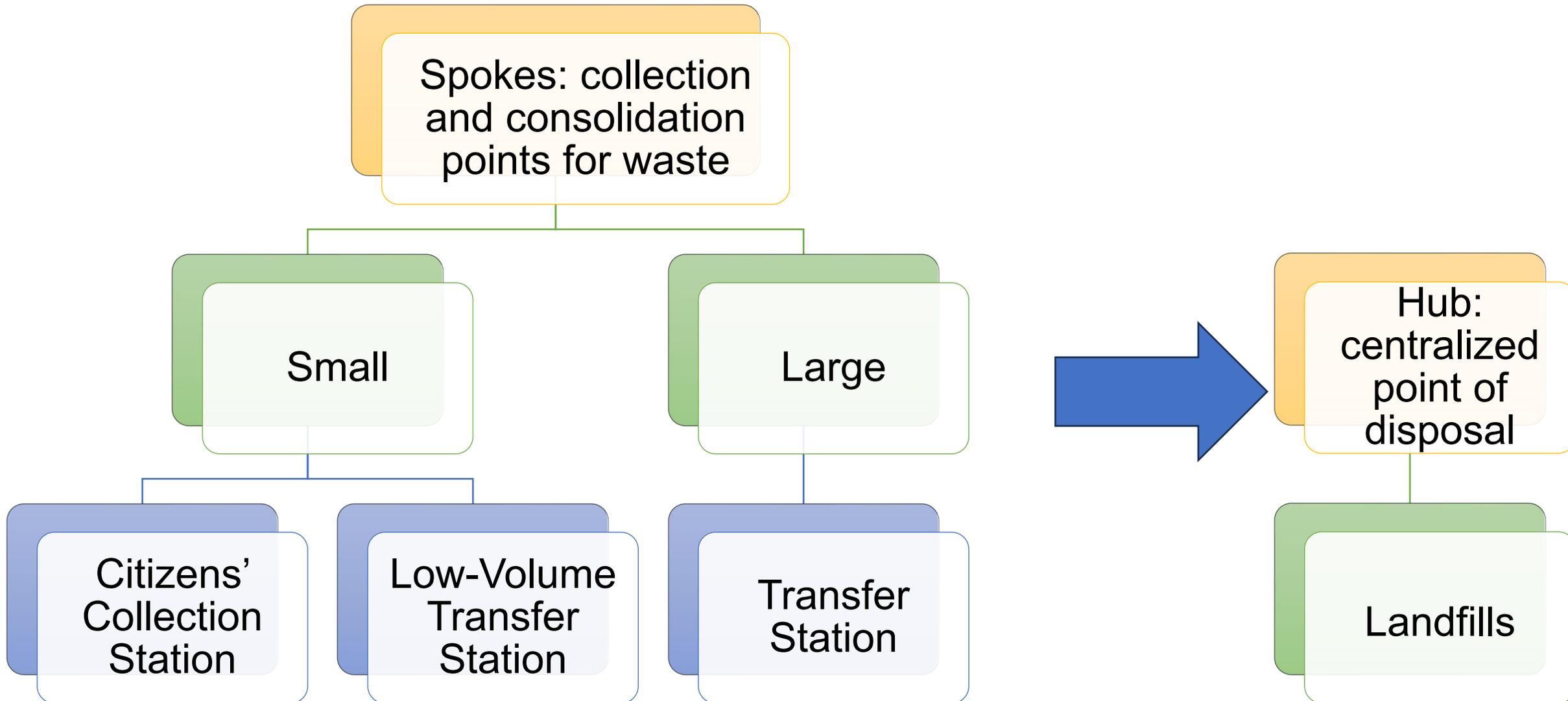
### Registration: One Notice

1. Notice of Application and Opportunity to Request Public Meeting

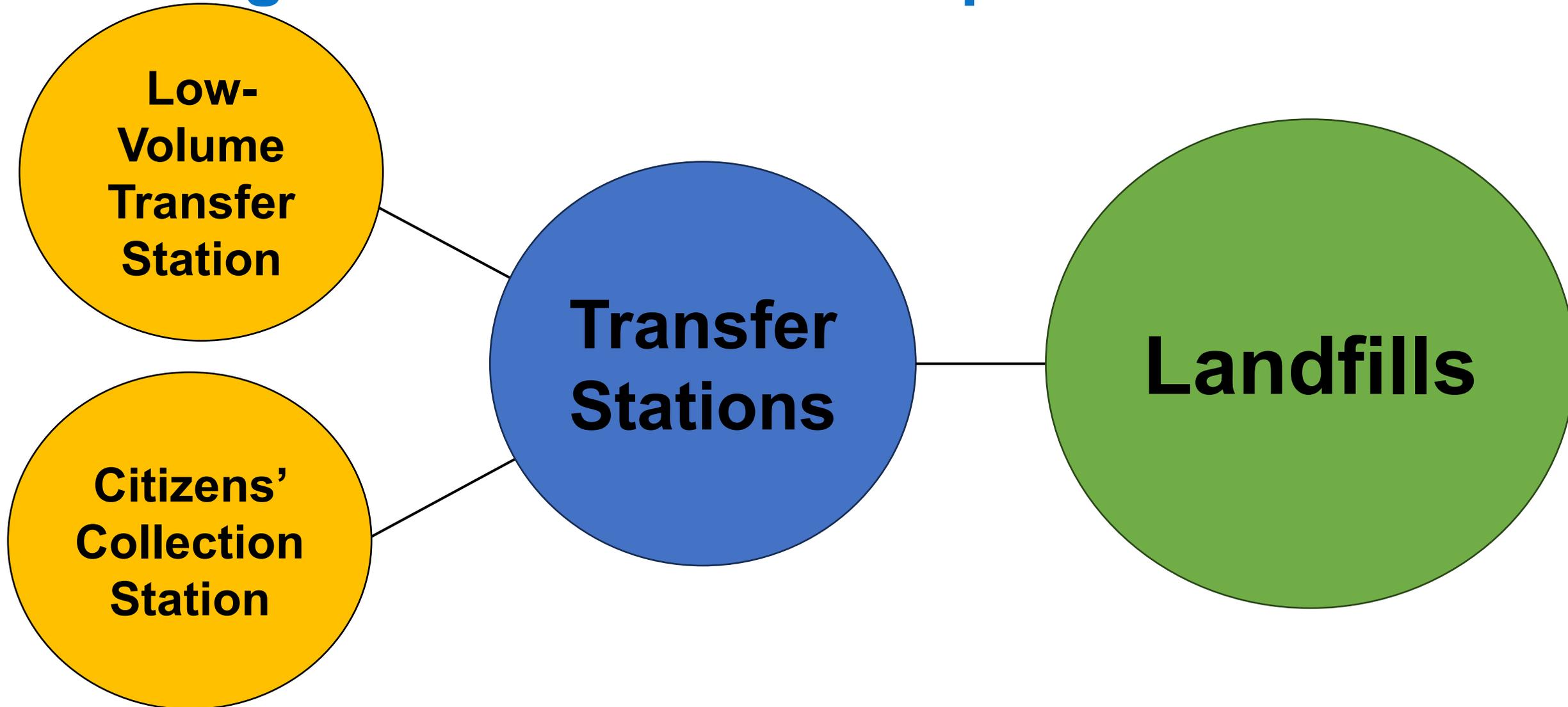
# Hub and Spoke Model



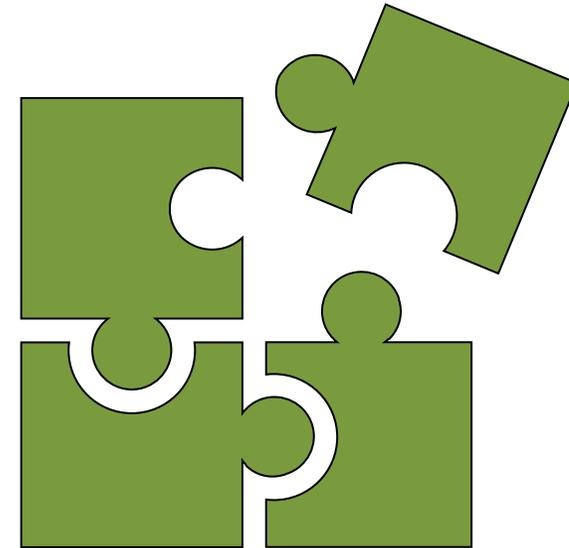
# The Hub and Spoke Model



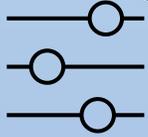
# Zooming in on The Hub and Spoke Model



# Benefits of Implementing the Hub and Spoke Model



# Benefits Associated with Citizens' Collection Stations and Low-Volume Transfer Stations



**Provides waste management options for rural or small communities**



**Lower Investment**



**Lower operating costs**

- landfill hauling and tipping fees
- transportation costs



**Collaboration between smaller facilities pools recyclables together can build economies of scale**

# Benefits Associated with Transfer Stations

## Reduces Transportation Distance

- Useful stopping point during long hauling distances to landfills in large urban areas or rural areas

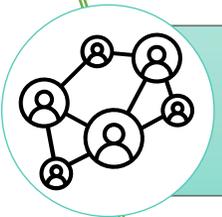
## Consolidates marketable volumes of recyclables for higher revenues



# Overall Potential Benefits



Increases efficiency of recycling programs



Works with a diversity of recycling systems



Boosts regional economies and creates jobs



Utilizing source-separation waste collection methods reduces labor and pricing costs of recyclable material to be sold directly to end markets.

# Recycling in the Hub and Spoke Model



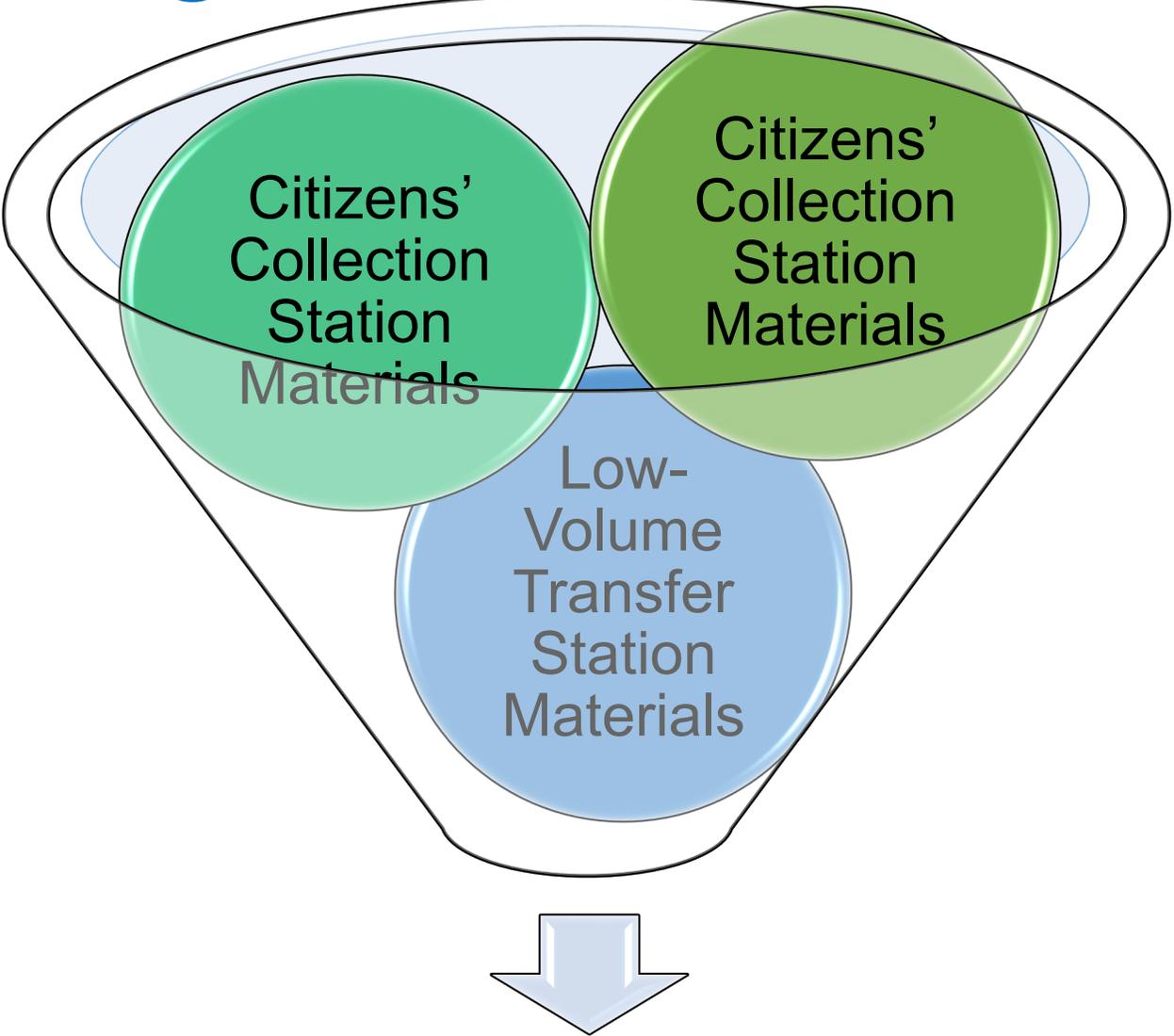
# Recycling at Citizens' Collection Stations & Low-Volume Transfer Stations

Use smaller facilities as collection points for source-separated recyclable materials

- Implement multiple storage containers, bins, or trailers to collect source separated materials.



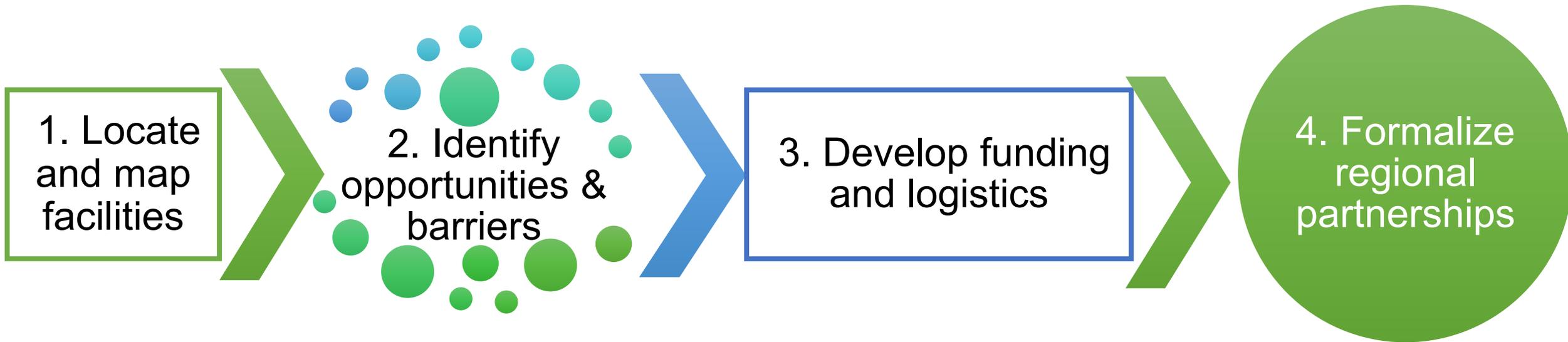
# Recycling at Transfer Stations



- Qualify for a registration-tier transfer station by implementing recycling on-site
- Recover 10% or more by weight or weight equivalent of the incoming waste stream for reuse of recycling

Increased volume of recyclables through partnerships and consolidation for material

# Create a Hub and Spoke Model in Your Area

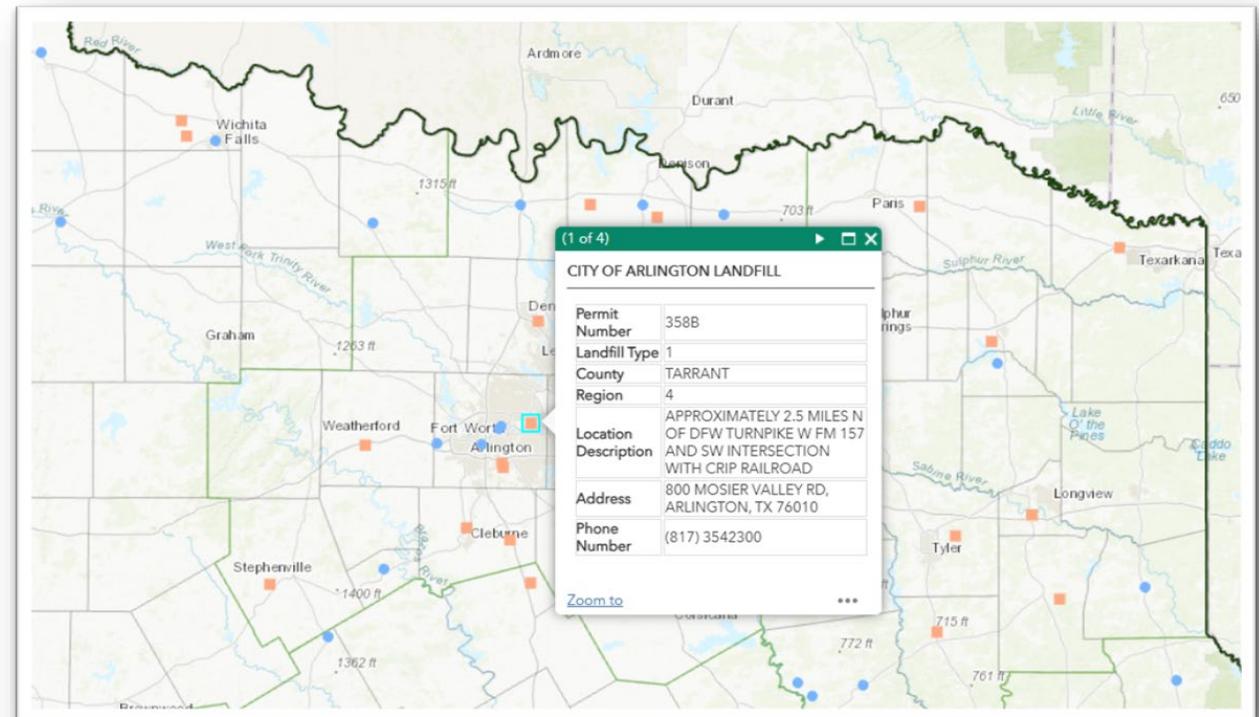


# Resources to Develop a Hub and Spoke Model

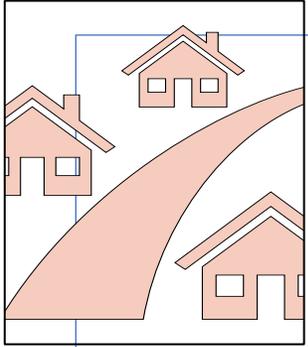


Read more about the potentials of recycling from the 2021 Recycling and Market Development Plan

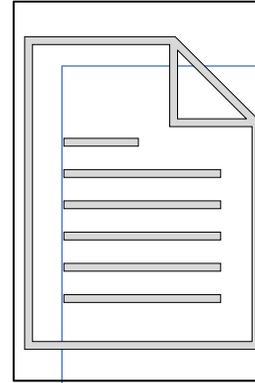
Locate existing MSW facilities with the Municipal Solid Waste Viewer Tool



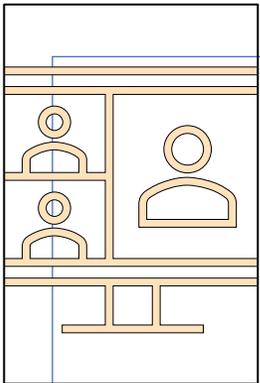
# Final Thoughts



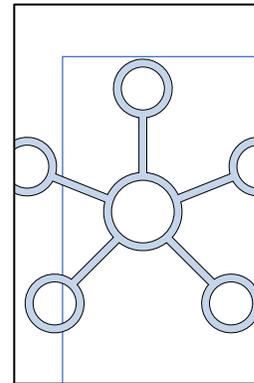
Identify community needs: consider applying for lower-tier waste management authorizations



Find application forms and instructions on our webpage



Contact us for a pre-application meeting



Consider the hub and spoke model during waste management planning

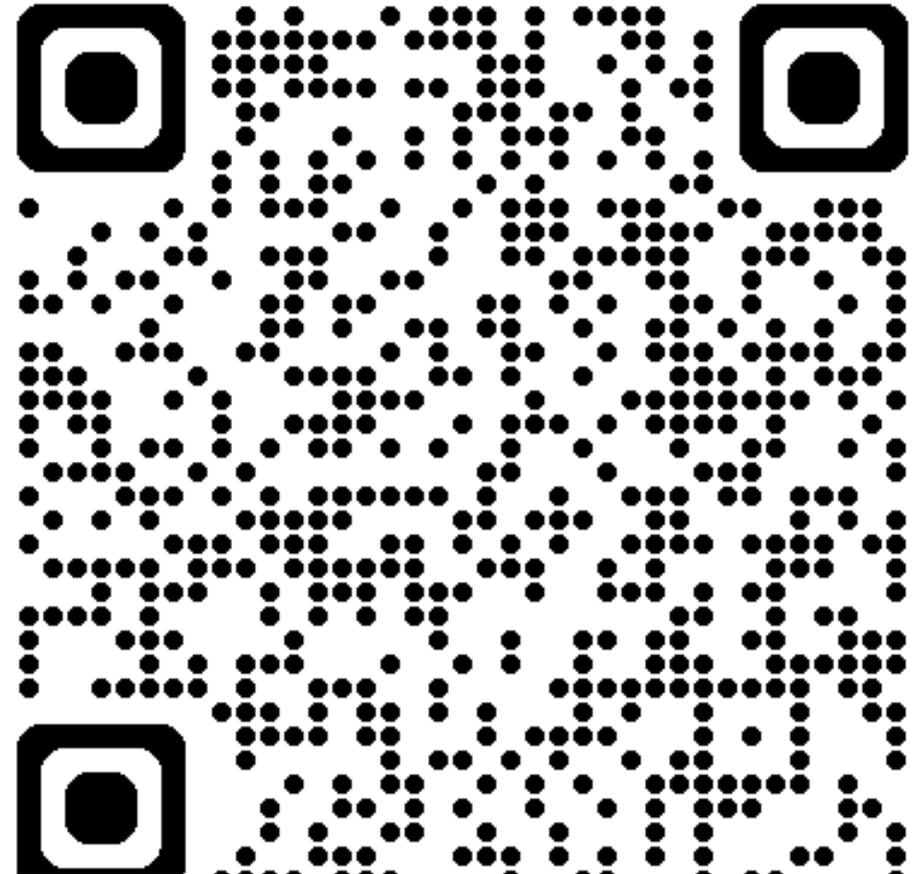
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Receive news from MSW about forms, rules, guidance, and procedure updates

Delivery by email or text

Sign up at:

<https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new>



# Contact Information

## Webpage:

Application Forms and Guidance: Municipal Solid Waste Landfills, Transfer Stations and Process Facilities:

[https://www.tceq.texas.gov/permitting/waste\\_permits/msw\\_permits/apply-operate](https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/apply-operate)

## Municipal Solid Waste Permits Section

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