



# **NAWT 5<sup>TH</sup> ANNUAL WASTE TREATMENT SYMPOSIUM**

**What are my disposal resources  
and how do they fit**

National Association of Wastewater Transporters, Inc.



# Introductions

- Tom Frank
- 2nd generation
- Huntsburg, Ohio





# Resources available

- One size does not fit all
- You & your competition are different





# You

- Your Environment
  - Your Property
  - Your State
  - Your County
  - Your neighbors
- Your employees
  - EXPERTS
- Your Customers
  - Competitors
- Your Trucks {Equipment}
  - My own Facility

**Your Resources**



## Your State {Regulations}

- Land application
- Treatment permitting

**Watch Animal waste**



# Your County [Local Regulators]

- First call should be to you
- You are the 'Expert'
- Work with them
  - Doughnuts
- Different wastes maybe handled differently
- Zoning can be a help with neighbors



# Your neighbors

- Issues
  - Trucks
  - Odors
- Relationships
  - Do your part





# Public perception

- Valuable neighbor
- Expert in field
- Quality service
- NOT~
  - The local problem
  - The place that smells
  - UGH.....





# Your Customers

- Future growth
- Customers; sustainability or long term survival and commitment
- Not just pump & dump
- Pumping reports to customers
- Record keeping of service done
- O-M, can also generate financial opportunities

# Customer sources of waste

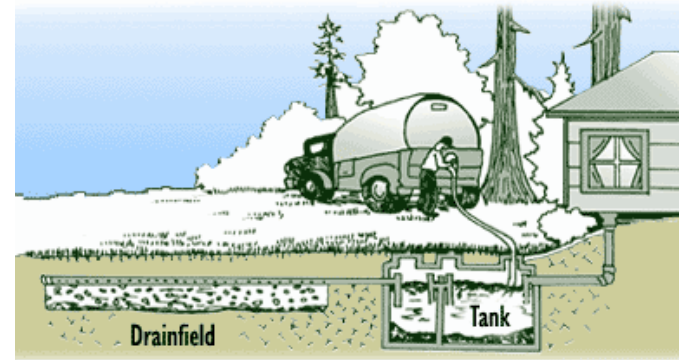
🚽 Homes

🚽 Business

🚽 Wastewater treatment plants

🚽 Industry

🚽 Commercial – Grease traps





## Deciding

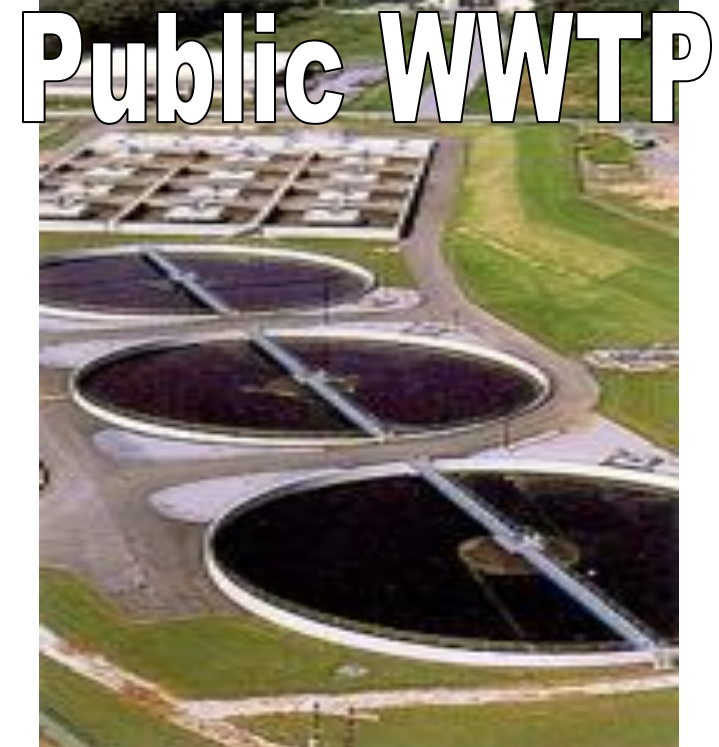
- All the information
- All the rules
- Field trips to operating facilities
- NAWT Waste Symposium

- ● ● | Moving your business forward

- **WASTE STREAMS**
- **AREA RESOURCES**
- **ECONOMIC CONSIDERATIONS**
  - **TECHNOLOGY RESEARCH**
  - **ENGINEERING AND PLANNING**
  - **BUILDING AND OPERATION**



● ● ● | LOCAL (OR NOT SO LOCAL)  
DISPOSAL OPTIONS





# TRANSFERRING TO WWTP



# SCREENING AND DIRECT DISCHARGE TO WWTP





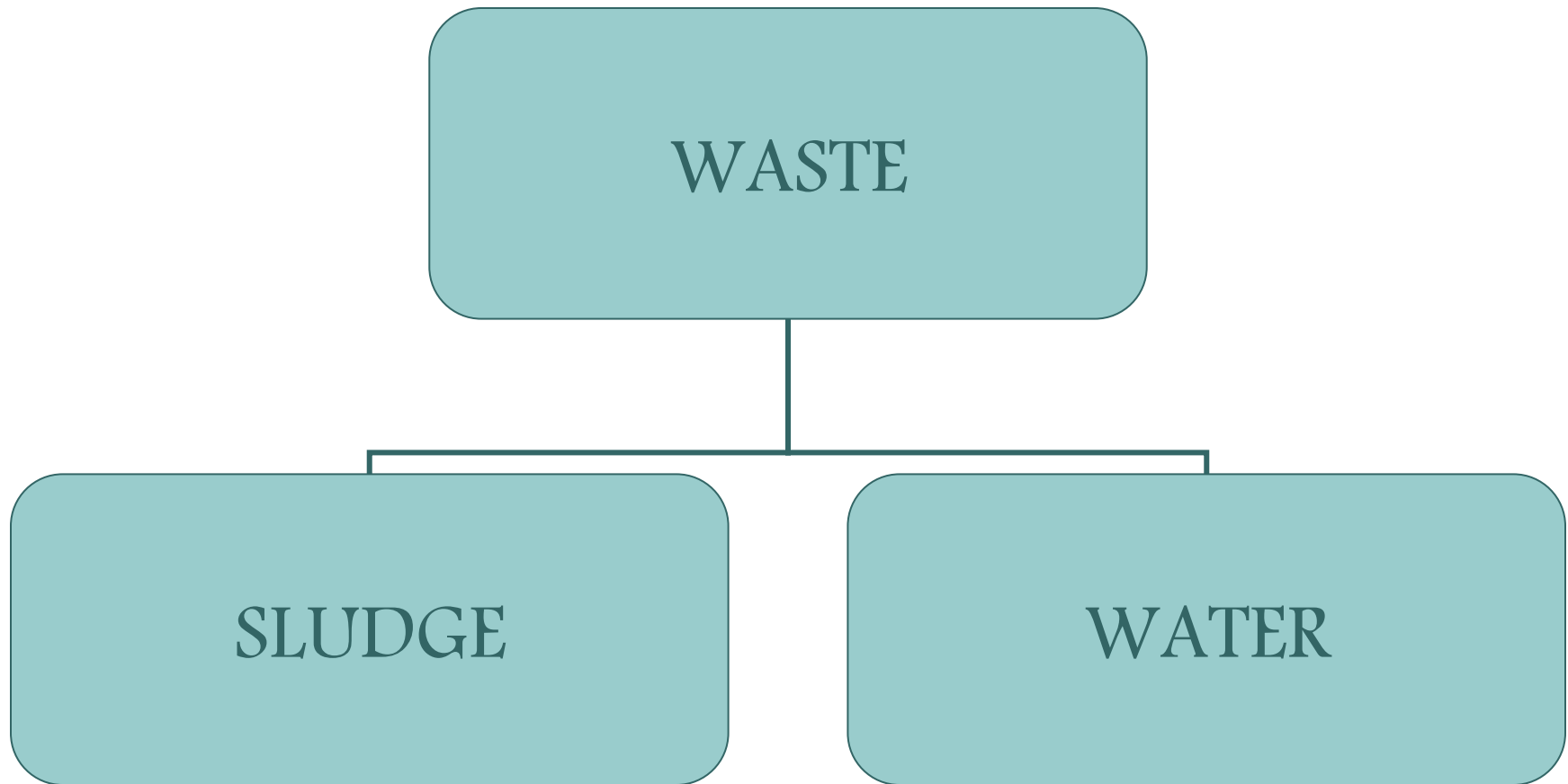
## Working with Local WWTP

- Approach with plan
- Think of it as a Partnership
- Work through their benefits
- Minimize your cost





# DEWATERING TREATMENT FACILITY





# DEWATERING TREATMENT FACILITY

- ▶ Thickening
- ▶ Dewatering
- ▶ Further treatment
  - ▶ Composting
  - ▶ Heat Drying



# DEWATERING TECHNOLOGIES

- BELT PRESS
- CENTRIFUGE
- SCREW PRESS
- ROTARY PRESS
- PLATE AND FRAME PRESS
- DEWATERING BOX
- SOLIDIFICATION
- JUGGLER

# STORAGE

- INCOMING SLUDGE
- EFFLUENT BEFORE FINAL DISCHARGE



# ● ● ● | Sludge after dewatering

- LAND APPLICATION
- LANDFILL
- COMPOSTING



# ● ● ● | BENEFICIAL REUSE

## ➤ LAND APPLICATION

➤ OWN/LEASE

➤ SELL PRODUCT





## WATER AFTER DEWATERING

- DISCHARGED TO PUBLICLY OWNED TREATMENT WORKS
- SPRAY IRRIGATION
- SUBSURFACE IRRIGATION
- IN SOME CASES – DIRECT DISCHARGE



● ● ● | **FINAL EFFLUENT**

➤ **ONSITE**

➤ **Spray**

➤ **Subsurface**

➤ **Surface water discharge**





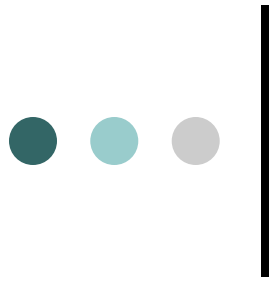


# DISCHARGE TO SEWER

- **Quality of Discharge**
- Sewer Use Ordinance
- Further Treatment Needed
- No Treatment Needed

➤ **Transport via pipe or truck**

➤ **How close – How far**



# GREASE

FOLLOWS 257 RULE – IS NOT COVERED UNDER THE 503 RULE

- FRYER OILS
- GREASE TRAP WASTE





# GREASE

- OPPORTUNITIES

- TREATED AND REUSED

- HEATED AND SEPERATED

- DEWATERED

- IN SOME STATES ~ LAND  
APPLIED

# WASTEWATER TREATMENT PLANTS

- Different regulations
- LARGE BUSINESSES
- MOBILE HOME PARKS
- SCHOOLS
- HOSPITALS, ETC...





# WASTE FROM WASTEWATER TREATMENT PLANTS

- DEWATERED
- DIFFERENT CRITERIA FOR LAND APPLICATION
- FINAL EFFLUENT – SIMILAR TO DEWATERED SEPTAGE EFFLUENT

# ● ● ● | Industrial water

- CONTAINER FILTER
- SOLIDIFICATION
- WITH CONSIDERATION IT COULD BE RAN THROUGH A MECHANICAL DEWATERING PROCESS



# ● ● ● | LAND APPLICATION

- My land
- Rented property
- Other



● ● ● | PARTNERING

- Farmers
- Discontinued farming operation
- Other professionals {Co-op}



Get approval





# Your employees

- A BIG decision
- Necessary 'EXPERTS'
  - Accountant
  - Lawyer
  - Banker
  - Engineer [Equipment Suppliers]
  - Marketing



# RECEIVING FACILITY CONSIDERATIONS

- Old ~ New
- Full dump
  - Tip able
- Vac all
- Portable Toilet



# Full Dump





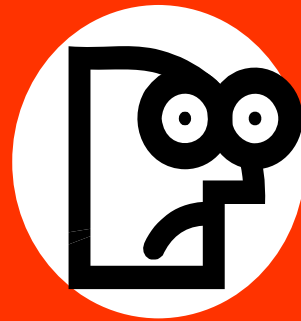
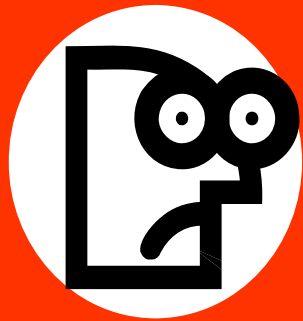
# Vac all





# Recycling Trucks

- Returning water to the Tank
- Screening separation
  - Simon moos
- Sensor operation
  - Juggler



**It's QUESTION TIME !!**