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NAWT Septage Processing

**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.....

Customer sources of waste

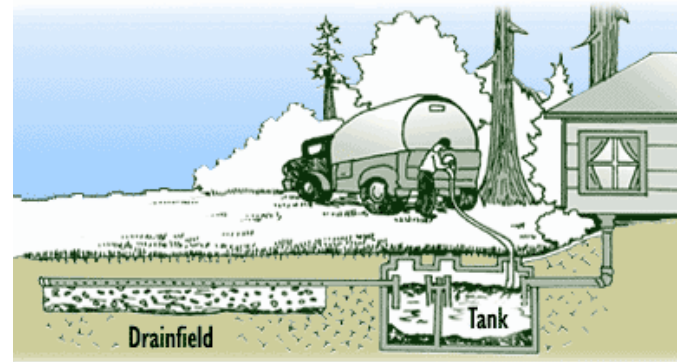
🚽 Homes

🚽 Business

🚽 Wastewater treatment plants

🚽 Industry

🚽 Commercial – Grease traps





Deciding

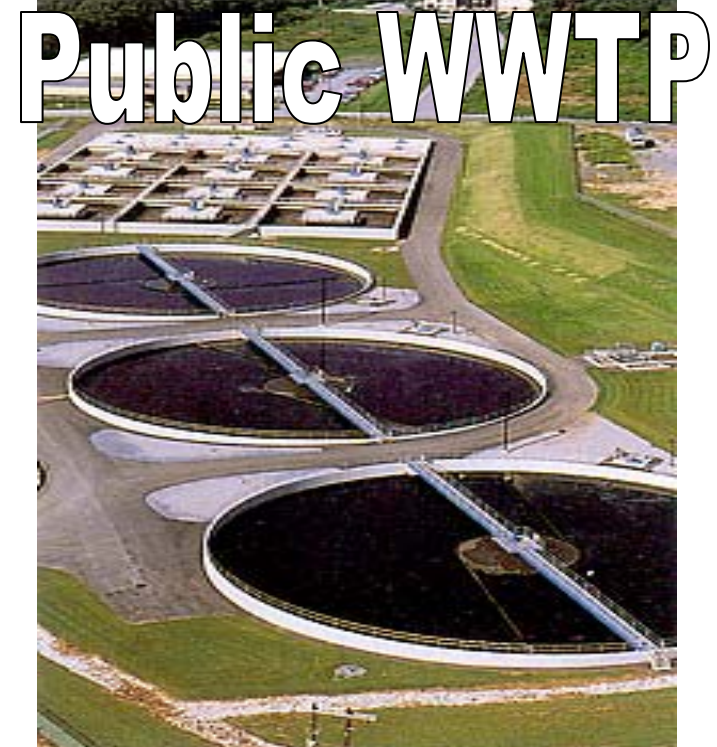
- All the information
- All the rules
- Field trips to operating facilities
- NAWT Waste Symposium
 - Orlando, FL 10/09



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

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

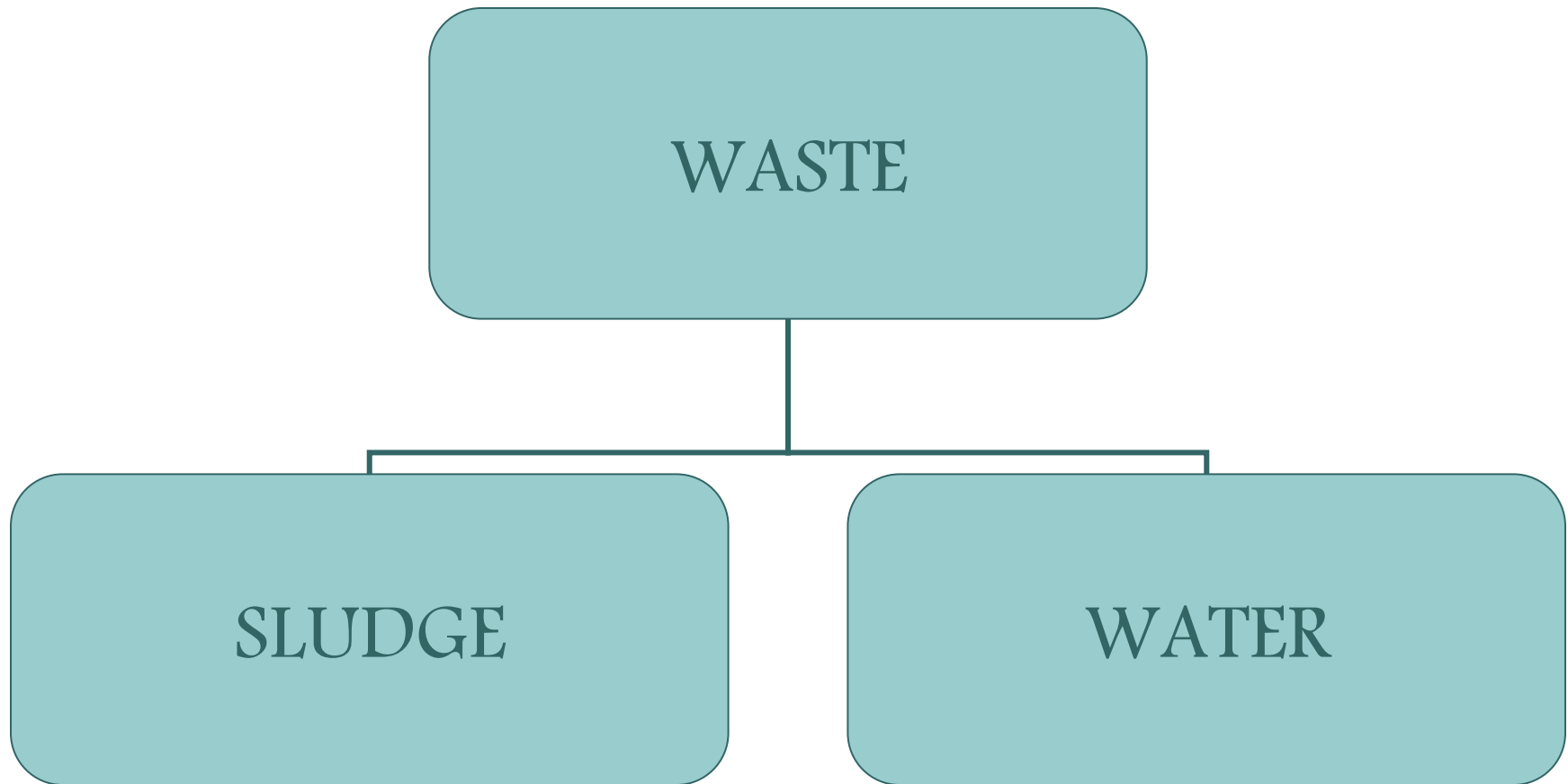


DEWATERING TECHNOLOGIES

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



DEWATERING TREATMENT FACILITY



STORAGE

- INCOMING SLUDGE
- EFFLUENT BEFORE FINAL DISCHARGE





Sludge after dewatering

- LAND APPLICATION
- LANDFILL
- COMPOSTING



BENEFICIAL REUSE

➤ LAND APPLICATION

➤ OWN/LEASE

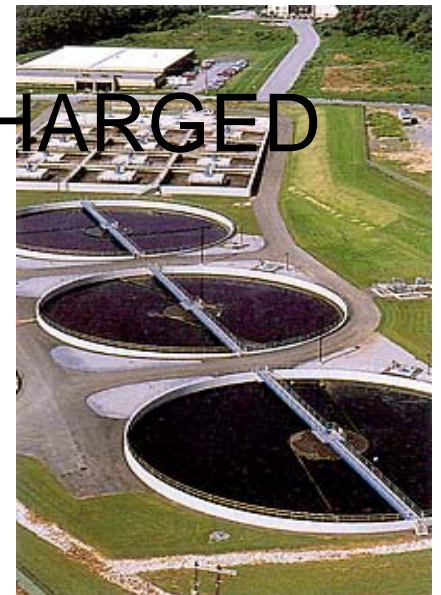
➤ SELL PRODUCT





WATER AFTER DEWATERING

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



● ● ● | **FINAL EFFLUENT**

➤ **ONSITE**

➤ **Spray**

➤ **Subsurface**

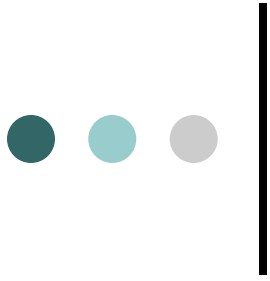
➤ **Surface water discharge**





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 SEPARATED

- 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
- SOLIDIFACATION
 - WITH CONSIDERATION IT COULD BE RUN 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



Your Customers

- Needs
 - Future growth
- Working with Customers
 - Marketing
 - Contracts



Business thoughts

- 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



Your Truck(s) {Equipment}

- Old ~ New
- Full dump
 - Tipable
- Vac all
- Recycling



Full Dump





Vac all



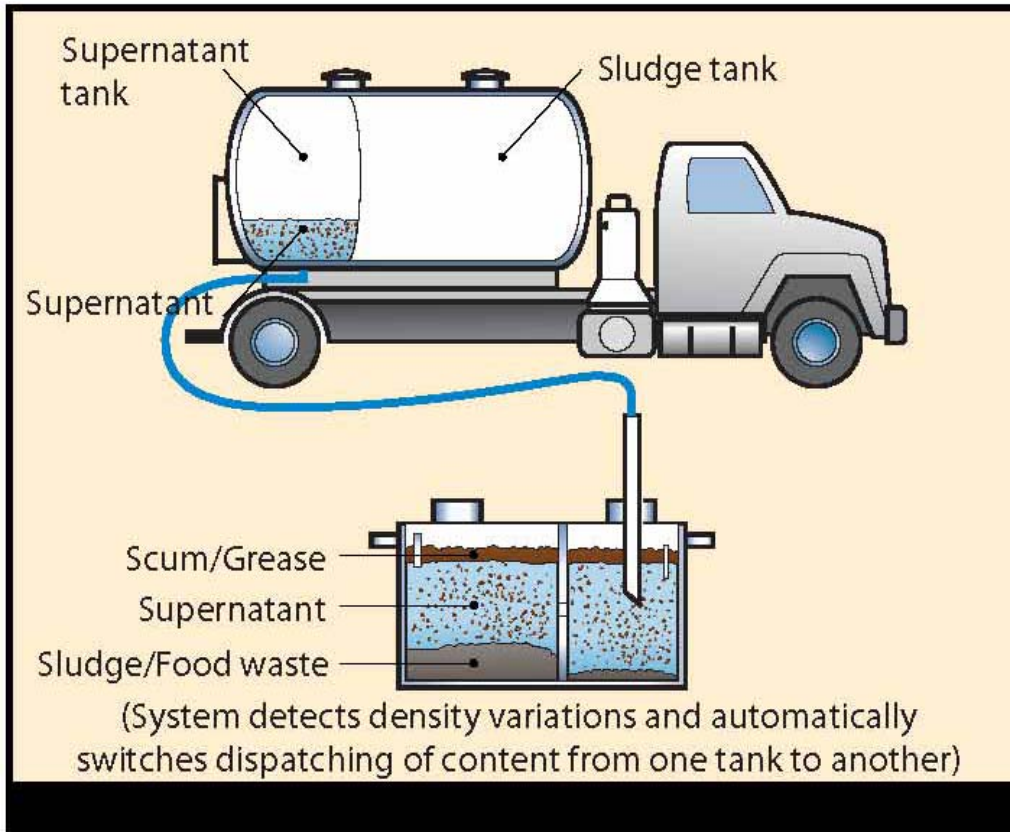




Recycling Trucks

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

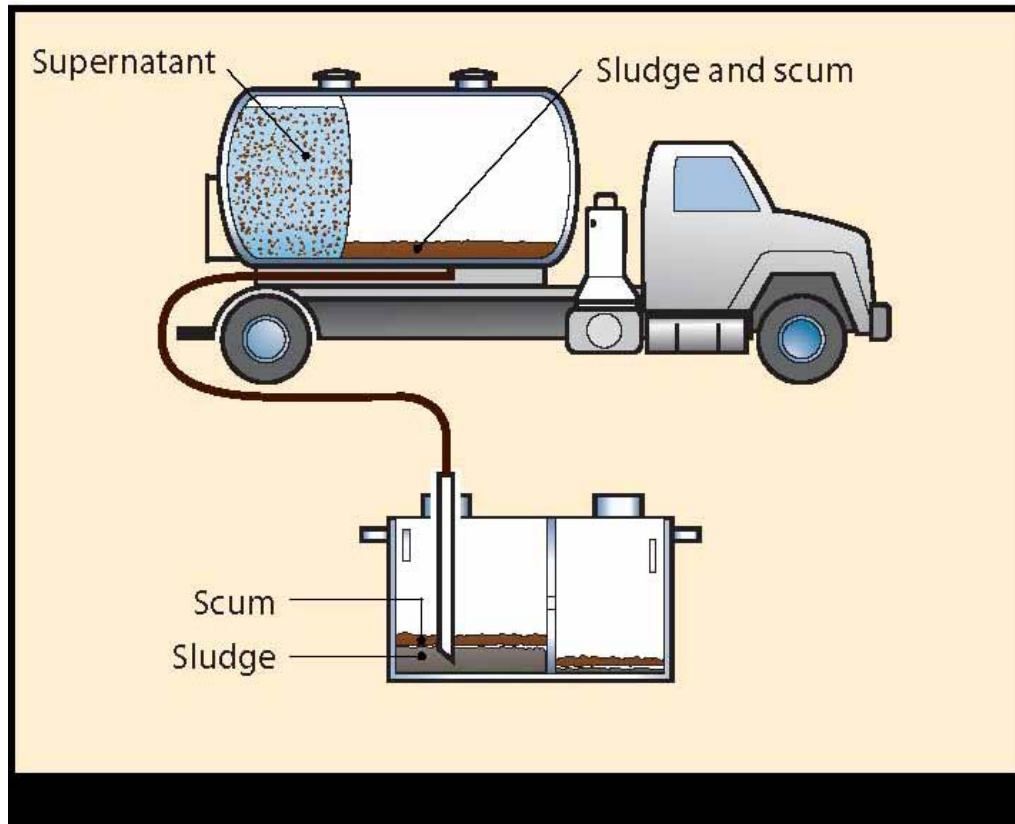
Juggler J10-A -- *Juggling - 3 simple steps !!*



Step 1

Supernatant is drawn up.

Juggler J10-A *Juggling - 3 simple steps !!*

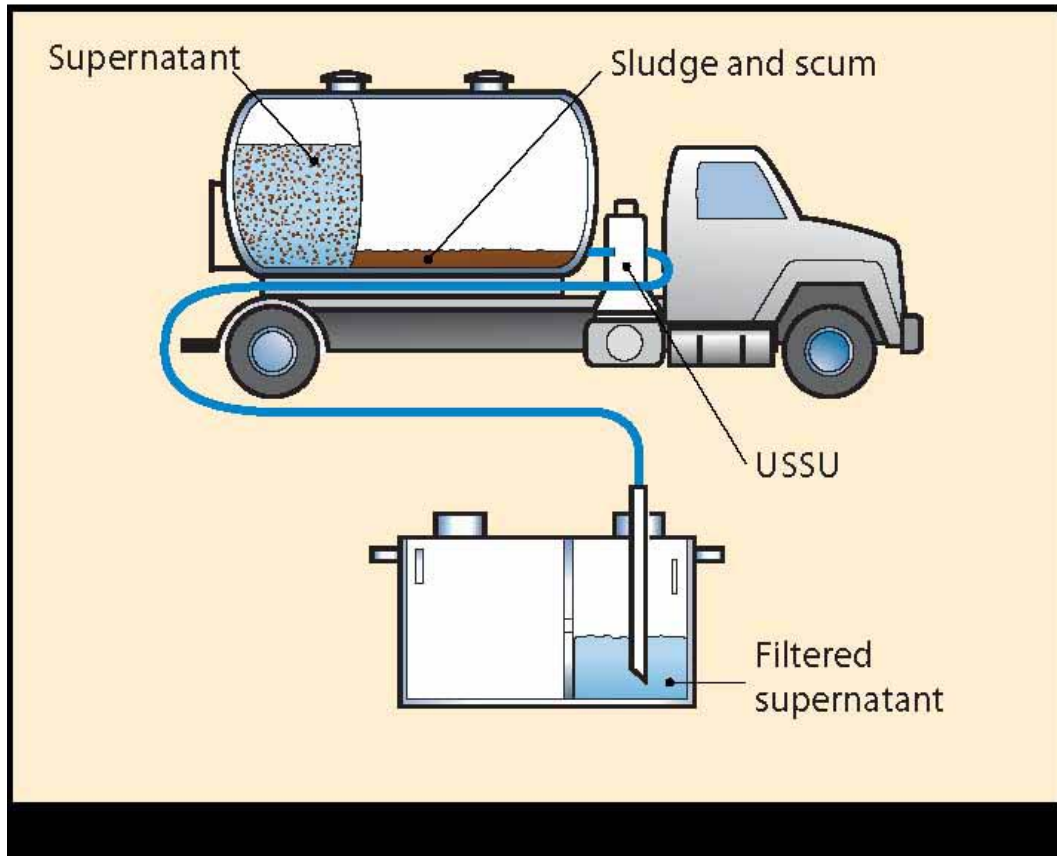


Step 2
Sludge and scum are drawn up.

 **Juggler™**



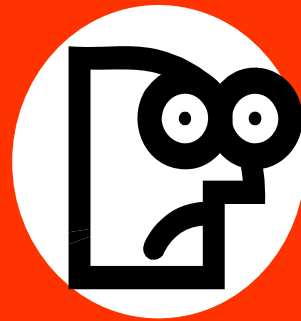
Juggler J10-A *Juggling* - 3 simple steps !!



Step 3

Supernatant is treated and returned to tank.





It's QUESTION TIME!!