

Industrial Pretreatment for Public WWTP



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City of Albert Lea

City of Albert Lea WWTP

- Plant built in 1983, funded by US EPA
- Activated Sludge Plant plus nitrification basins and sand filters with UV Disinfection
- Design Capacity based on Existing Slaughter House

	Observed	Design
AWW Flow	5 MG	18 MG
ADW Flow	3 MG	9 MG
CBOD ₅	350 mg/L	194 mg/L

Delegated Authority

- Federal Regulations – 40 CFR 400
- Minnesota Rule - Chapter 7049
- Local Ordinances

Allows the City to require an industry pretreat wastes before discharging to the City's system.

Industrial Users

- Significant Industrial Users (SIU's)
 - Discharges an average of 25,000 gpd process water
 - Produce 5% or more of WWTP treatment capacity
 - Special designation by the City as likely to cause upsets
 - City has ability to exercise discretion
 - Users billed for strengths over domestic concentration
- Categorical Industrial Users (CIU's)
 - Users that do not meet the flow and strength requirements of SIU's but pose an environmental risk or a potential for upsets.
 - Examples: Metal finishing, Electroplating, Petroleum refining, Timber products processing, landfills.

Pretreatment Permit Requirements

- Must notify the City if:
 - Slug flow or accidental discharge
 - Permit modification
 - Violation has occurred
 - Annual reporting
- Industry executives and staff can be help criminally responsible for non compliance.

Pretreatment Tours

- Education on processes used
- Inspection
- Observe
- Build relationships

Pretreatment Sampling

- City collects weekly samples
- Certified Lab
- BOD, TSS, TKN, pH, FOG
- Compliance and Billing

Industrial Users

- 7 SIU's
 - 5 food industries
 - 2 biorefineries
- 4 CIU's
 - Metal finishing
 - Electroplating

Industrial Users

- **Food Industries**
 - Meat packaging
 - Meat Processing
 - Food Drying
 - Salads, Dips, and Mashed Potatoes
 - Margarine

Industrial Users

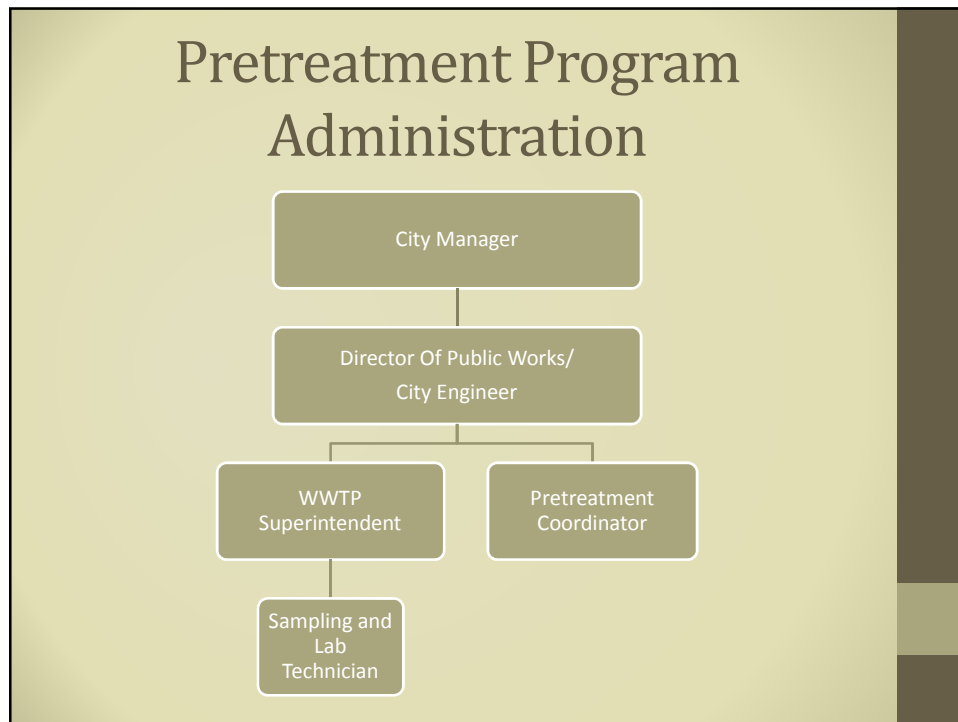
- **Refineries**
 - Biodiesel
 - Ethanol

Industrial Users

- Pretreatment Equipment
 - Biomethonator
 - Diffused Air Filtration (DAF)
 - Equalization Tank and DAF
 - Various pH Adjustment systems
 - Grease Traps
- Alternate Methods
 - Solid waste streams
 - Composting

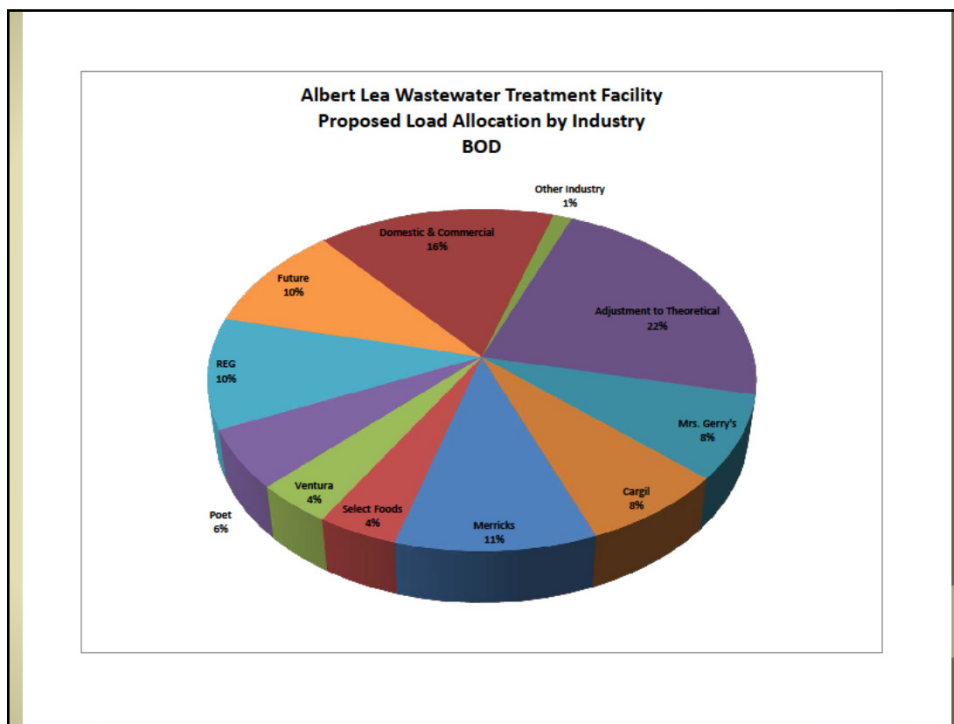
Industrial Users

- Public information
- Trade Secrets and Confidentiality



Pretreatment Case Studies

- FOG most frequent violation
- Violations affect the collection system
- Industry handicaps
- Unpermitted FOG Violators – Truck wash
- Inflow and Infiltration
- Unique Permits
- New permittees – Growth into permitting
- Unauthorized Users



Pretreatment Permitting

- Protect the City's plant and collection system
- Protect the public
- Protect the environment

Questions?

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