Yonkers Odor Control Study

Yonkers Joint Water Resource Recovery Facility

Chris Korzenko, P.E., PMP
William Nylic, P.E., PMP

October 24, 2019

CDM Smith

Introductions

CDM Smith Presenters

- Christopher Korzenko, P.E., PMP – Project Director
- William Nylic, P.E., PMP – Project Manager

Company Background

- Established in 1947
- More than 5,000 employees worldwide
- Services include consulting, engineering, construction, and operations
- Solutions in water, environment, transportation, energy, and facilities
- Experienced in the design and evaluation of odor control systems
  - Odor Source Surveys/Emissions Modeling/Dispersion Modeling
  - Technology Assessments
  - Process Cover Design/Odor Control Design
  - Construction Services
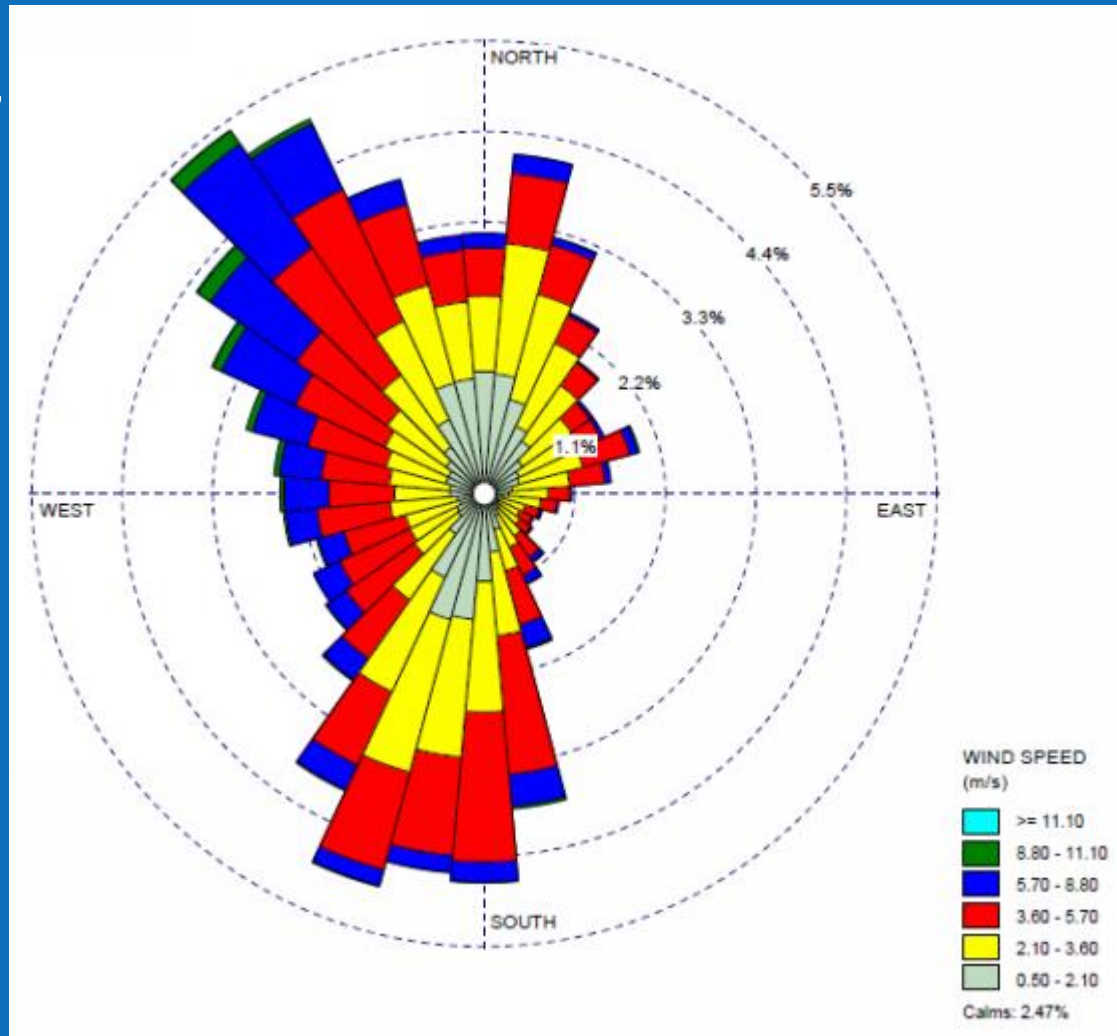
Purpose of Odor Control Study

Goal

- Identify sources of odors and develop recommendations to reduce offsite impacts
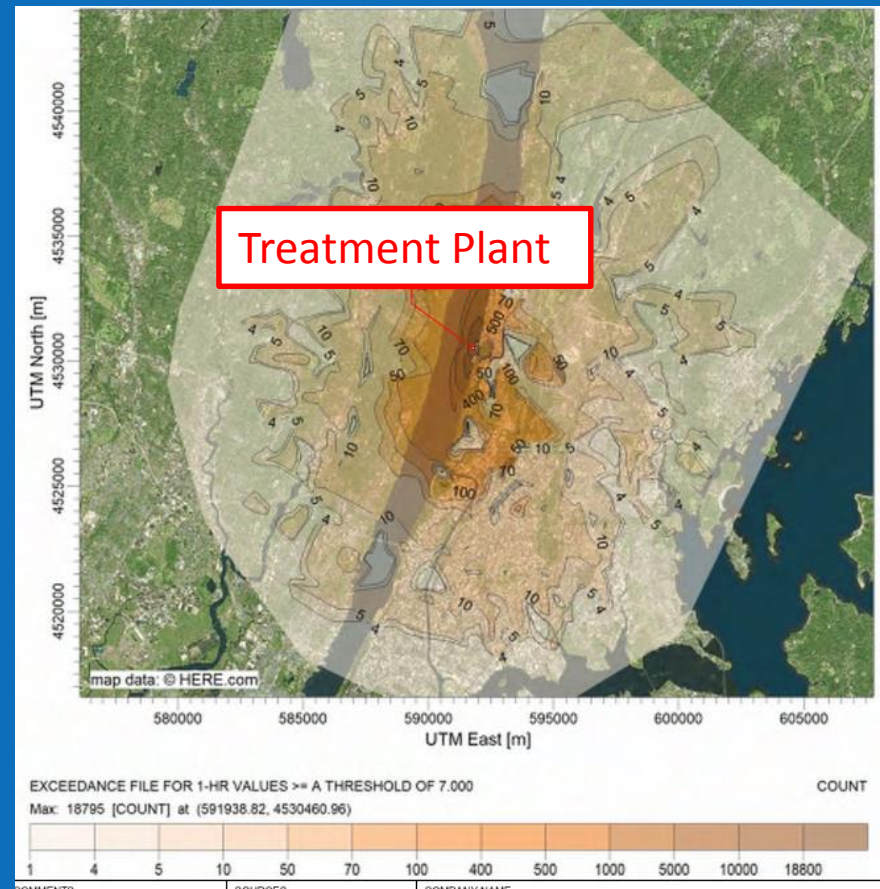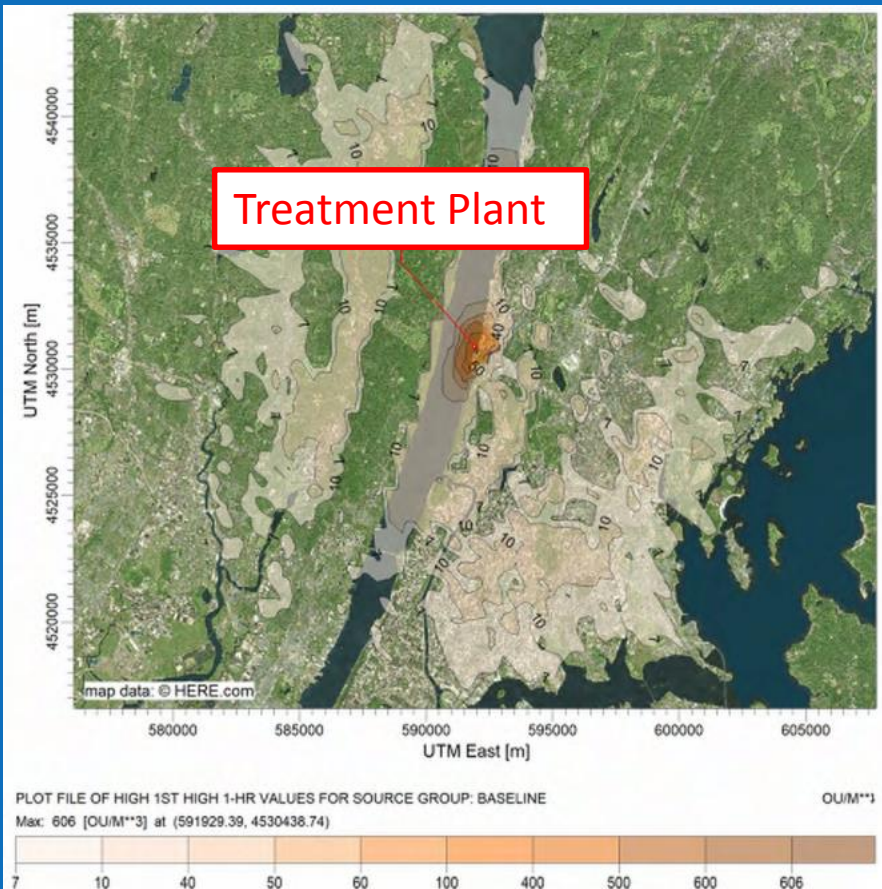
Areas of Focus

- Odors associated with taking tanks out of service
- Performance of Existing Odor Control Equipment
- A/S Aeration Tank Odor Control
- Digester Gas Flare Operation
- Dewatered Sludge Loading Bay

Wind Data

- Termed a "Wind Rose"
- Indicates direction wind is blowing **from**
- Created with five years of plant data
- Prevailing winds are:
  - Northwest – 34.15%
  - Southwest – 28.92%
  - Northeast – 20.67%
  - Southeast – 13.76%
  - No Wind – 2.50%

Baseline Odor Strength and Frequency Isopleths

Odor Control Study - Status

- Odor Control Study is Complete
    - Provided to the County Executives Office for dissemination
- Recommendations being Implemented in HVAC Phase IV
    - Primary Thickener Scrubbers 2, 3, and 4 - Replace nozzles and blowers. Recoat exterior
    - Install registers in Sludge Loading Bay Supply Ducts and balance airflow
    - Install automated washdown stations
    - Replace Primary Settling Tank Scrubbers A, B, and C
    - Sludge Loading Bay Improvements
- Schedule
    - 24 months from Project Initiation to Project Closeout

Questions?