Air Quality and Surface Water Quality Monitoring Project for Union County South Dakota Department of Environment and Natural Resources

Commission Meeting October 21, 2008

I. Staff Introduction

II. Air quality testing in Union County

a. Air quality monitoring plan

b. Site UC1 location and testing parameters

c. Site UC2 location and testing parameters

d. Site UC3 location and testing parameters

e. Questions

f. Contact: Brad Schultz, Air Quality Program, 605-773-6038

III. Surface water quality testing in Union County

a. Surface water quality sampling sites at 6 locations.

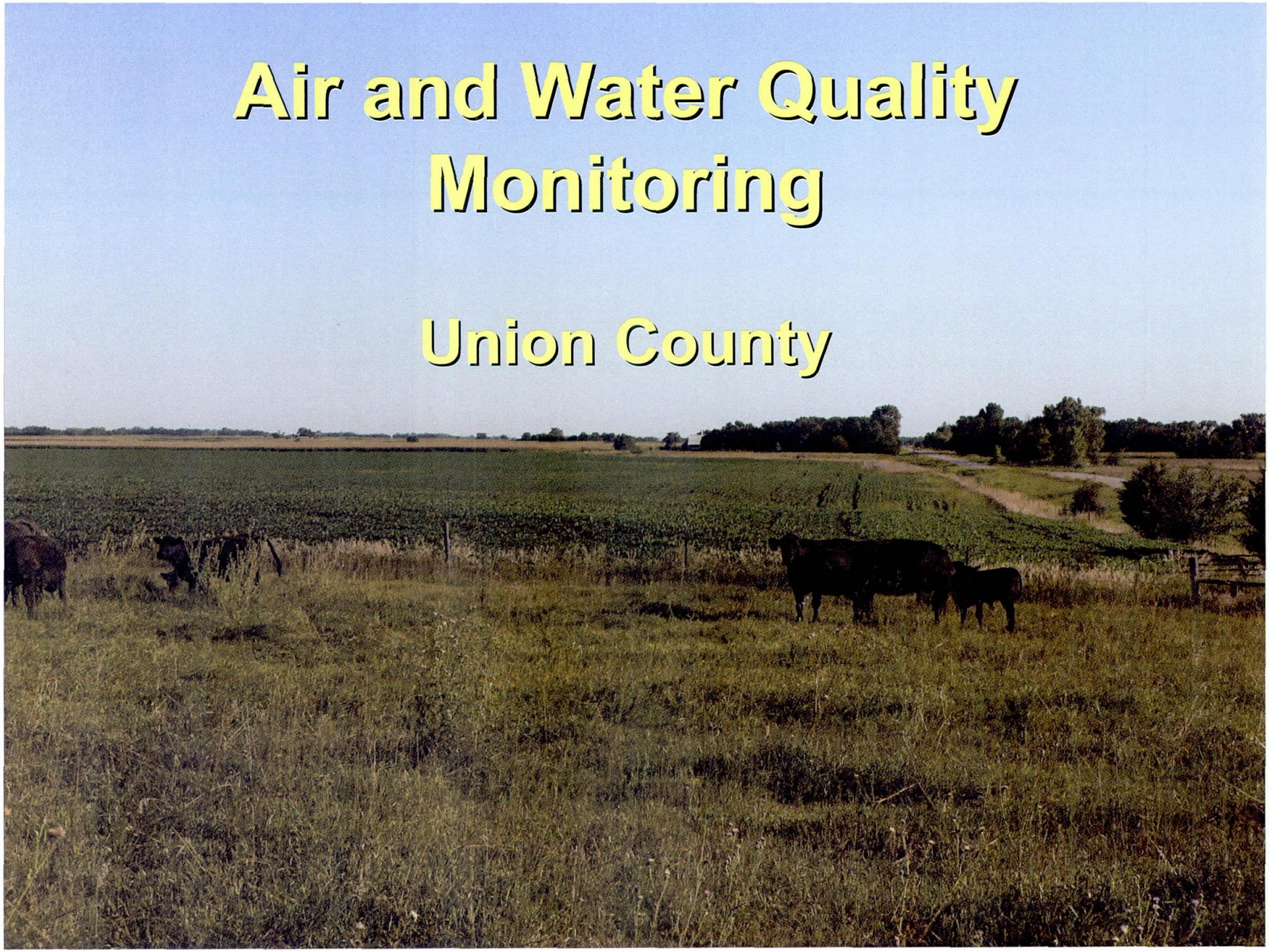
b. Testing parameters: Dissolved oxygen, pH, water temperature, nutrients, ions, metals, total petroleum hydrocarbons, and volatile organic compounds.

c. Questions

d. Contact: Pat Snyder, Surface Water Quality Program, 605-773-3351

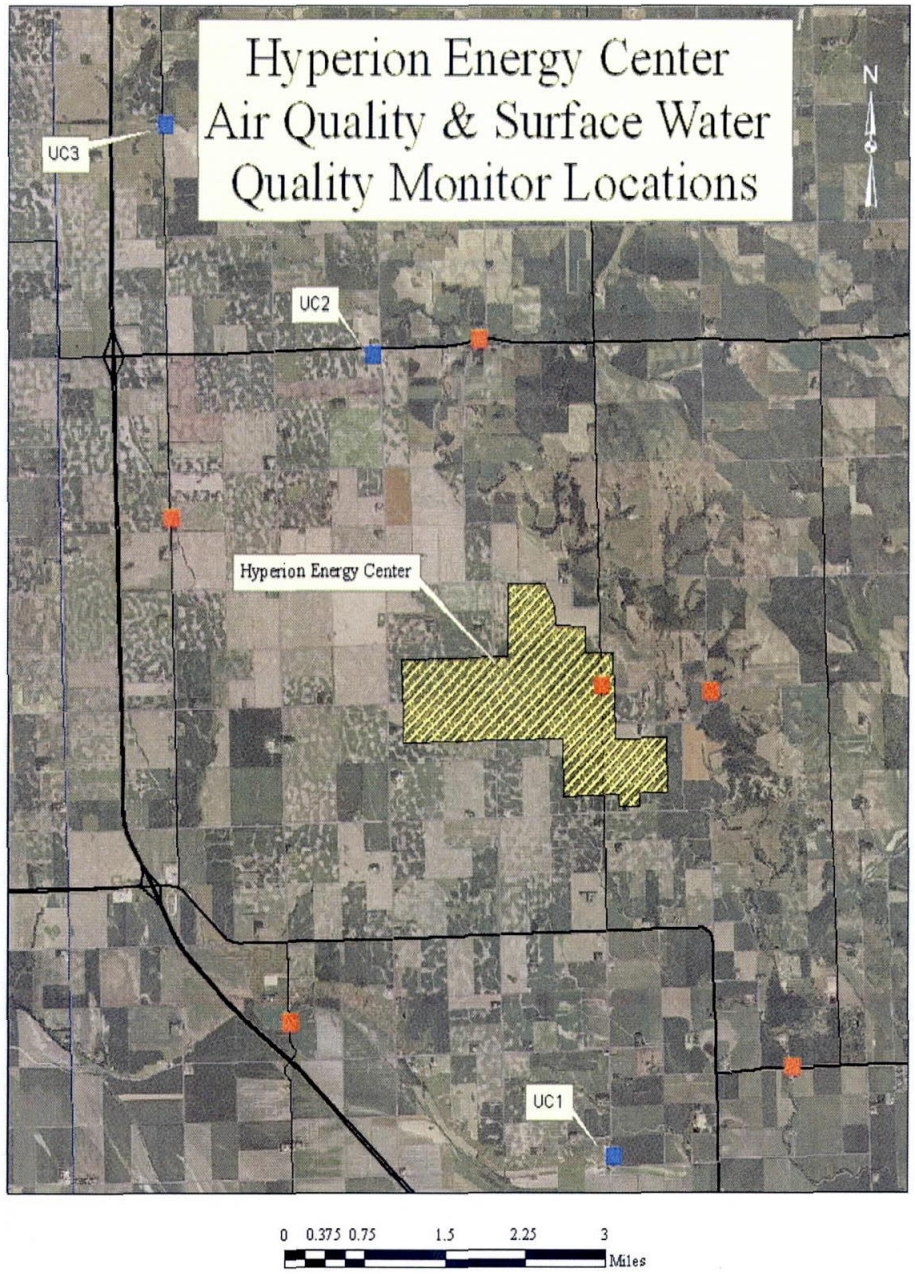
Air and Water Quality Monitoring

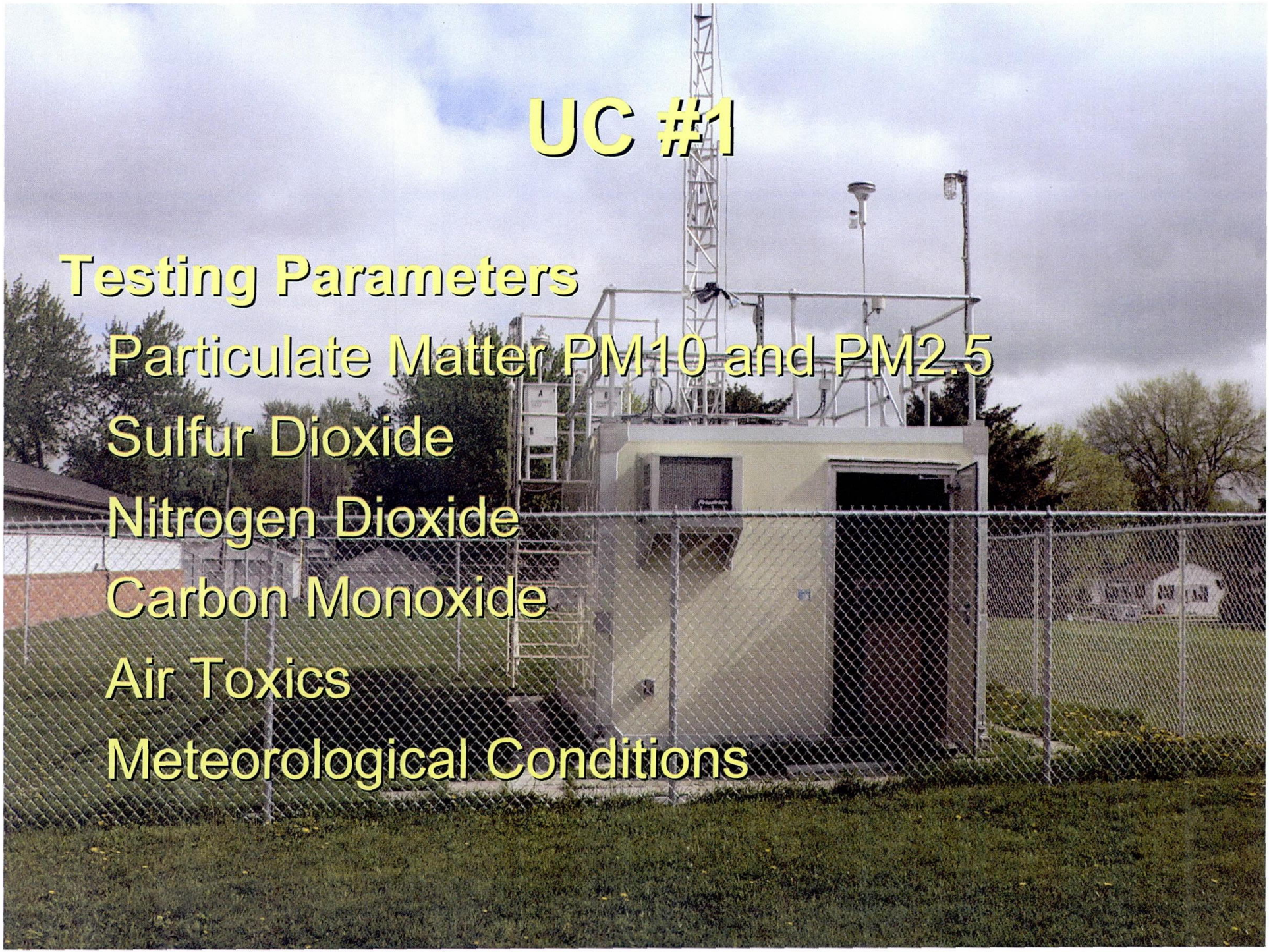
Union County



Project Goals

- Establish Background Levels
- Determine Construction Impacts
- Determine Facility Impacts
- Long Term Trends

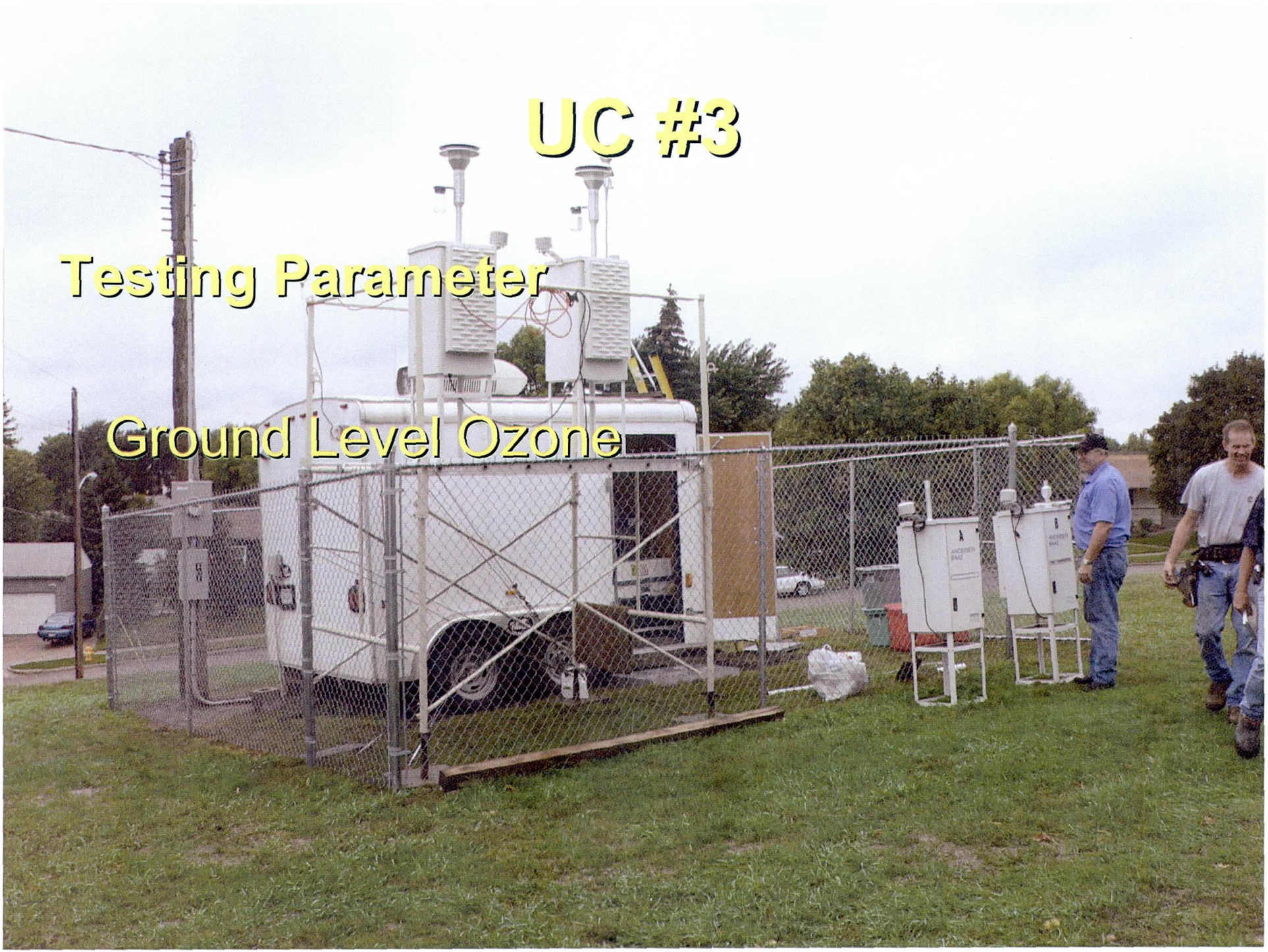

Hyperion Energy Center
Air Quality & Surface Water
Quality Monitor Locations
N
UC3
UC2
Hyperion Energy Center
UC1
0 0.375 0.75 1.5 2.25 3
Miles

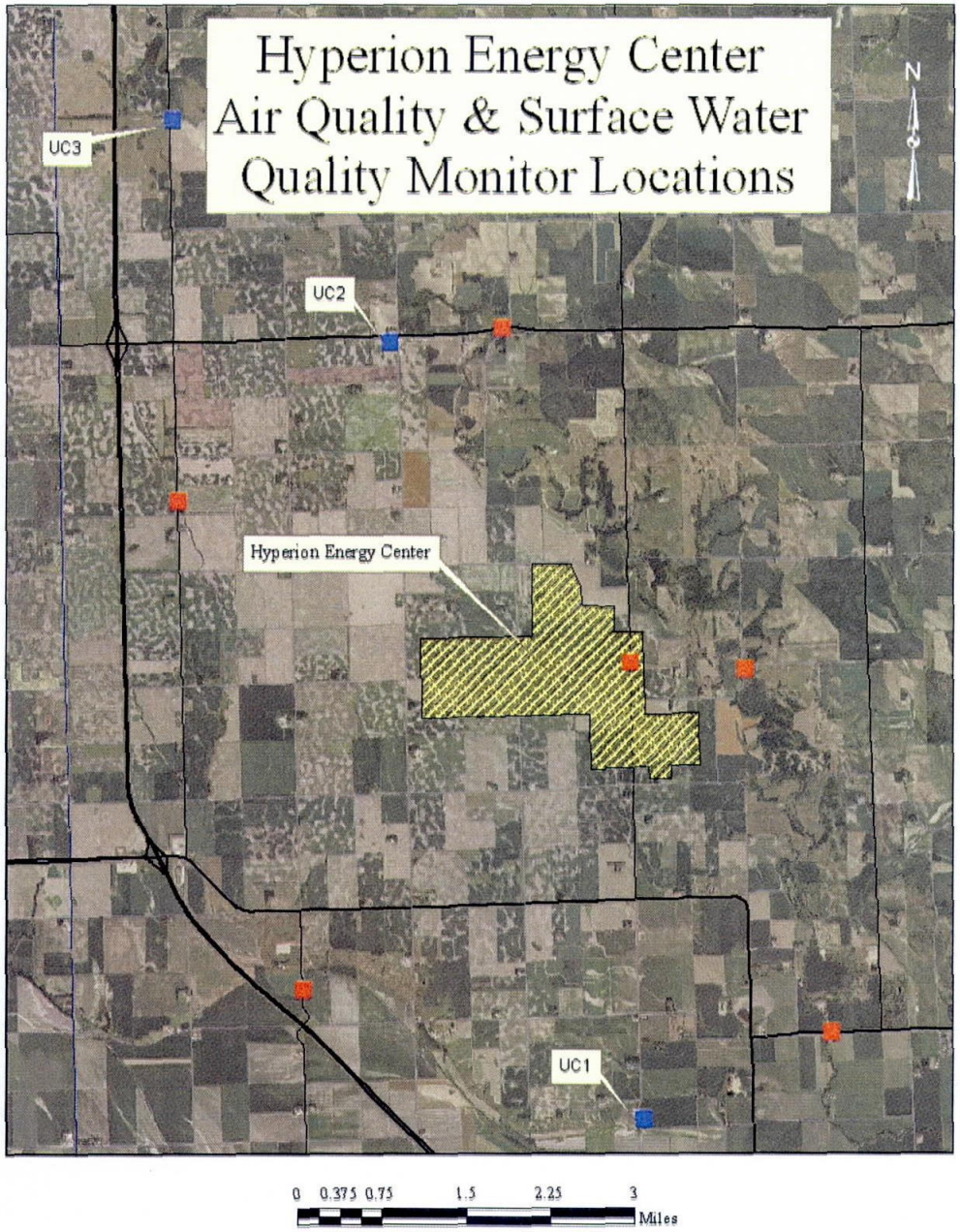

UC #1
Testing Parameters
Particulate Matter PM10 and PM2.5
Sulfur Dioxide
Nitrogen Dioxide
Carbon Monoxide
Air Toxics
Meteorological Conditions

UC #2

Testing Parameters

- Particulate Matter PM10 and PM2.5
- Sulfur Dioxide
- Nitrogen Dioxide


UC #3
Testing Parameter
Ground Level Ozone


Hyperion Energy Center
Air Quality & Surface Water
Quality Monitor Locations
N
UC3
UC2
Hyperion Energy Center
UC1
0 0.375 0.75 1.5 2.25 3
Miles

Water Quality Monitoring

- Six sampling sites sampled on a quarterly basis
- Testing parameters –
  - Dissolved oxygen
  - pH
  - Water Temperature
  - Nutrients
  - Ions
  - Metals
  - Total Petroleum Hydrocarbons
  - Volatile Organic Compounds

Air and Water Quality Monitoring

Contacts:

Air Quality

Brad Schultz (605) 773-6038

Water Quality

Patrick Snyder (605) 773-4729