



National Fuel

National Fuel Gas Supply Corporation
Empire Pipeline, Inc.

Northern Access 2016 Project Wheatfield Public Information Forum

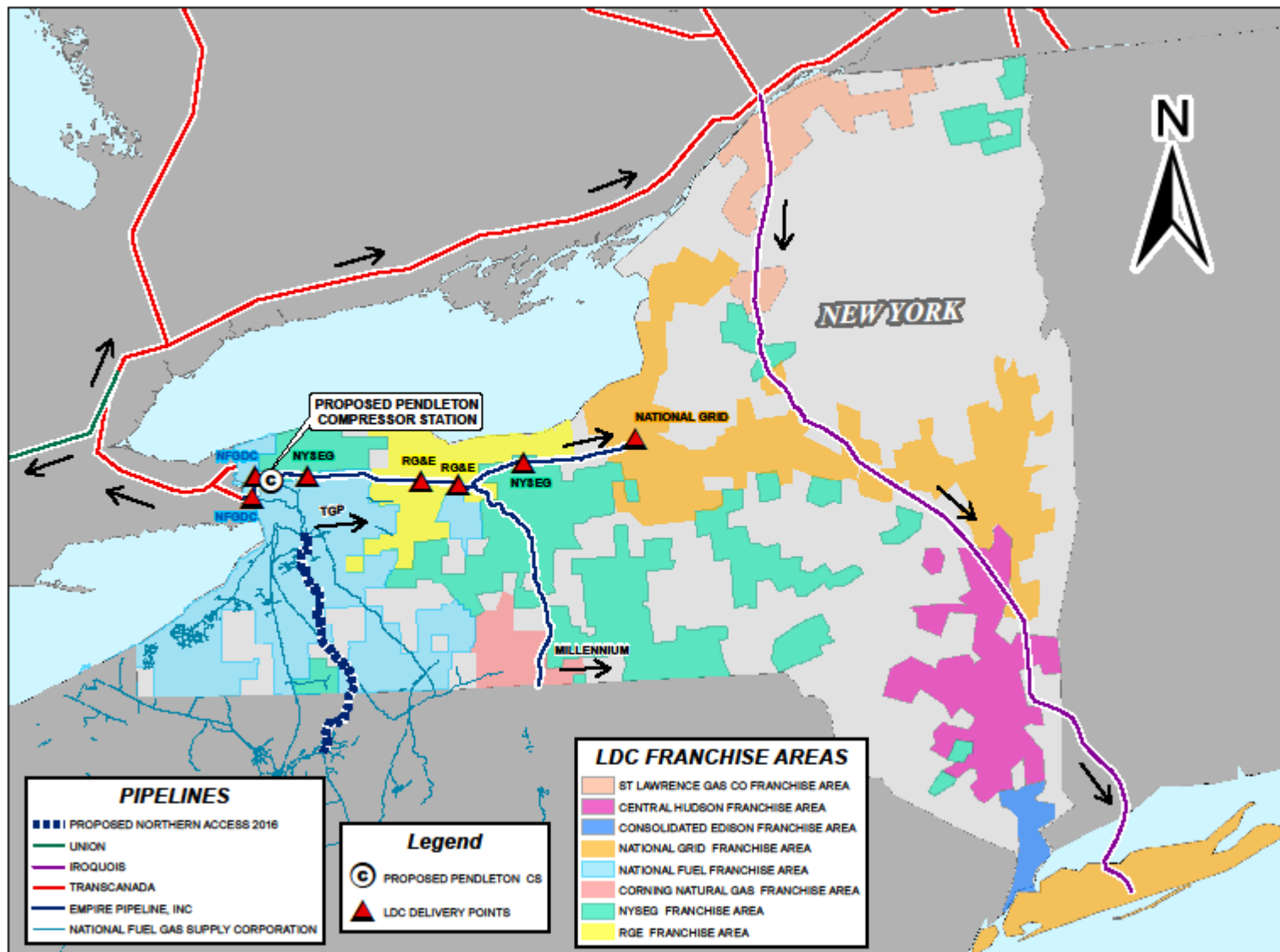
January 13, 2016

Docket Number CP15-115-000
& CP15-115-001

Northern Access 2016 Project

- \$455 million project to expand the natural gas infrastructure of Western New York headquartered National Fuel Gas Company subsidiaries:
 - National Fuel Gas Supply Corporation
 - Empire Pipeline, Inc.
- Enable economically produced regional supplies of natural gas to enter the North American pipeline grid, including Western New York utility markets
- Project facilities span McKean County, Pa., and Alleghany, Cattaraugus, Erie and Niagara counties, N.Y.
- Project is regulated by the Federal Energy Regulatory Commission (FERC)
 - Lengthy and rigorous environmental and regulatory review of project began July 2014
 - FERC Application filed March 2015
 - FERC Certificate typically received approximately 1 year after application

Project Context



North American Markets

Empire Pipeline, Inc. to construct a natural gas dehydration facility:

- Remove moisture from pipeline quality gas to meet downstream tariff — limited operation
- Existing Marcellus gas supply serves local market and meets National Fuel gas quality tariff
- Located in the M-1 (Industrial) zoned area on Liberty Drive
- Occupy 1 acre SE corner of 40-acre parcel
- Approximately half mile to closest residence
- \$275,000 in annual local property taxes for facility



Wheatfield Project Facility



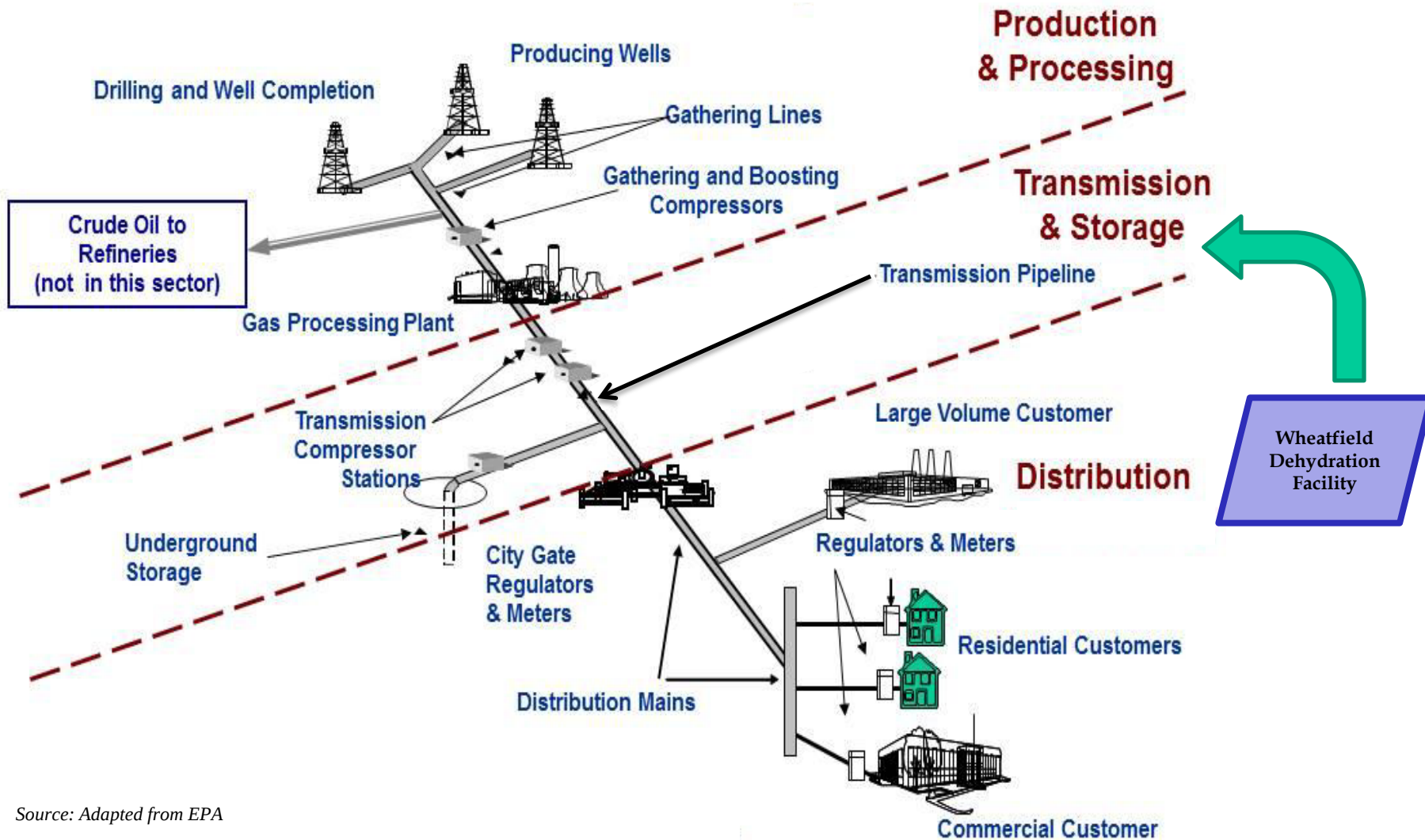
**NOT
Wheatfield
Dehydration Station**

Process Plant



Similar Facility — Cambria, N.Y.

The Natural Gas Industry

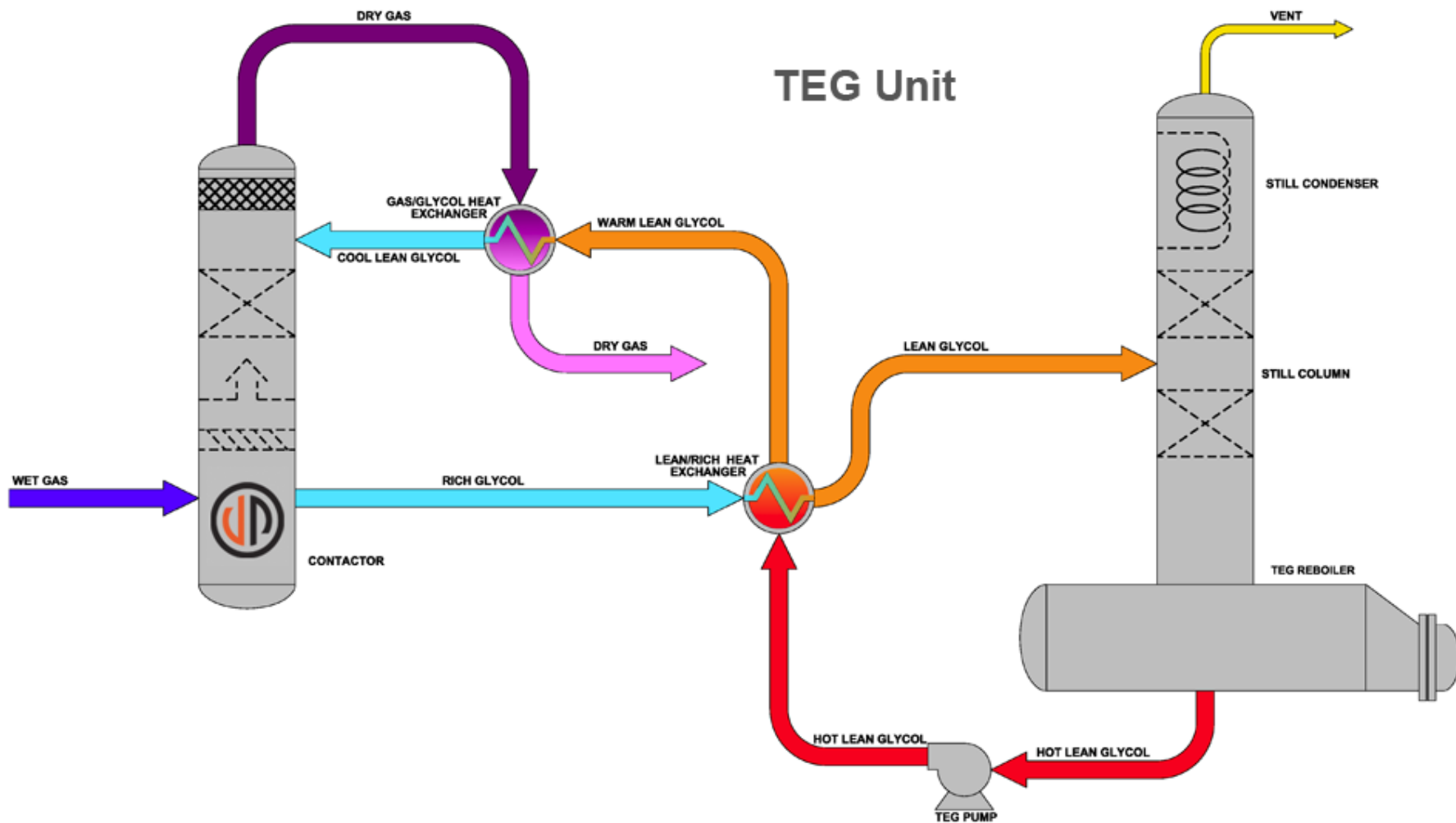


Source: Adapted from EPA

- Dehydration process is designed to remove water vapor (humidity) from the natural gas stream
- Proposed Wheatfield dehydration facility assures downstream interconnect gas quality standards are met
- Based on Calendar 2015 data....ONLY 2 DAYS OF ACTUAL NEED TO OPERATE



Wheatfield Facility Aerial View



Wheatfield Facility Schematic



Contactor Tower



Reboiler



Thermal Oxidizer



Dehydration System

Contact: Corporate Communications

Phone: 1-800-634-5440, ext. 7861

Address: Feedback Northern Access 2016
c/o Corporate Communications
6363 Main Street
Williamsville, N.Y. 14221

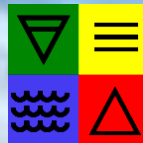
Email: corpcomm@natfuel.com

Online: www.nationalfuelgas.com/empire/northernaccess2016

Contact Information

Air Quality Requirements and Management at the NFG Wheatfield Dehydration Facility

January 13, 2016



ies, inc.

Primary Clean Air Act (CAA) requirements that trigger emission control regulations:

- The Clean Air Act requires EPA to regulate hazardous air pollutant (HAP) emissions
- National Emissions Standards for Hazardous Pollutants (NESHAPs): (a.k.a. Maximum Achievable Control Technology (MACT) standards)
 - 40 CFR Part 63, Subpart HHH - National Emission Standards for HAP from Natural Gas Transmission and Storage Facilities regulates dehydrators
 - Regulates benzene, toluene, ethyl benzene and xylene (BTEX) emissions
- Wheatfield facility is NOT subject to HHH due to low emissions
 - Wheatfield facility HAP emissions result in an EPA minor source categorization (less than 10 TPY of individual HAP or 25 TPY aggregate HAPs)
 - Wheatfield dehydrators are considered “small” per Subpart HHH — uncontrolled benzene emissions are significantly less than 1 ton per year
- Addition of state-of-the-art controls reduces volatile organic compounds emissions (e.g., BTEX) by 99 percent

Primary Clean Air Act (CAA) Requirements

State-of-the-art controls selected:

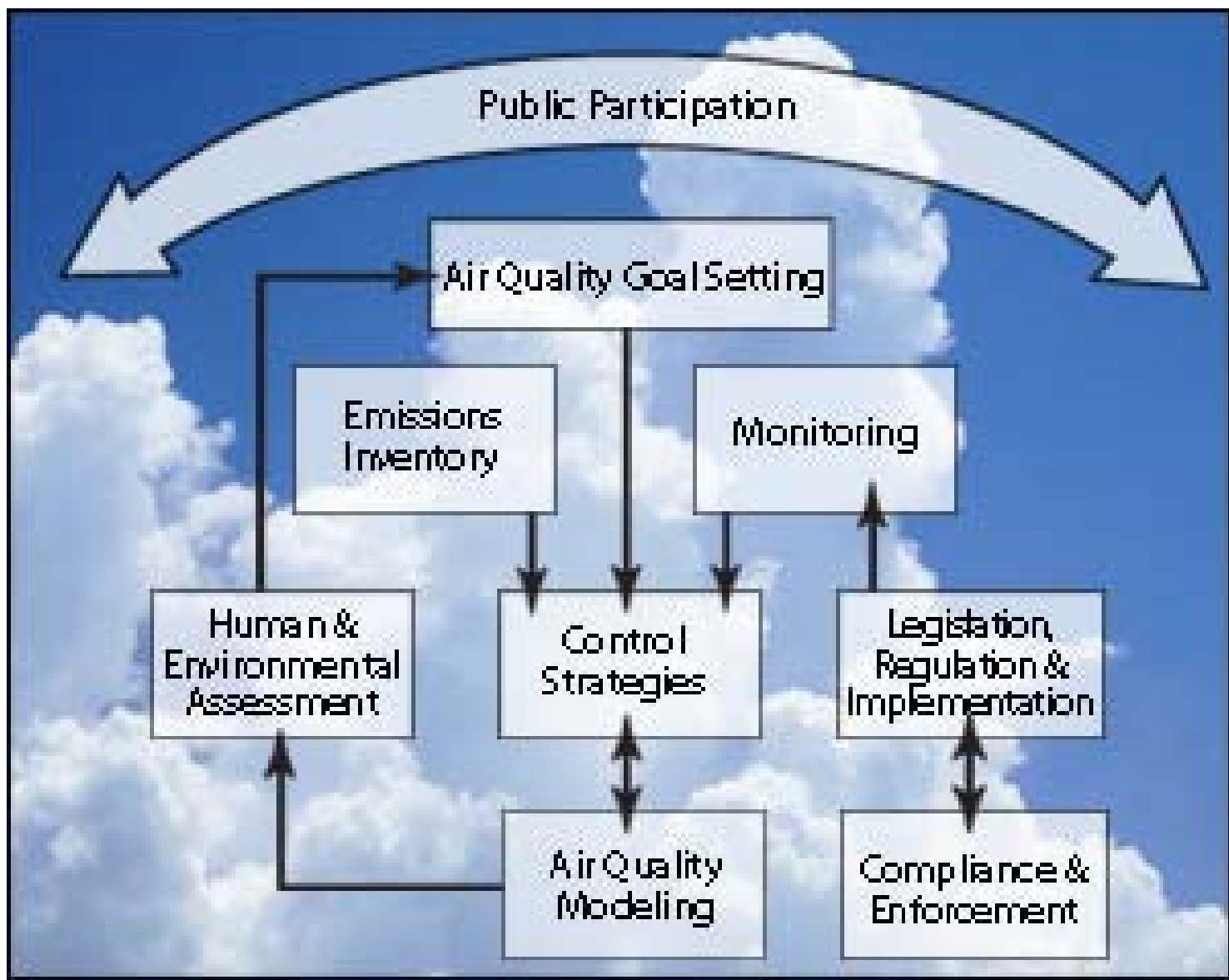
- Natural gas at Wheatfield facility will have negligible BTEX — When removing moisture or “natural gas liquids” at upstream dehydrators or processing plants, BTEX is removed
- Controls represent industry established best practices for the dehydration equipment at this station
 - The voluntary addition of flash gas separator tank reduces volatile organic compound and methane emissions
 - Installing thermal oxidizer for further reduction of pollutants beyond state and federal requirements resulting in additional environmental benefit
 - Thermal oxidizer is designed and optimized for the sole purpose of destroying volatile organic compounds and BTEX
- Dehydrators emissions will be less than applicable EPA and New York State Department of Environmental Conservation (NYSDEC) standards

State-of-the-Art Controls

Committed to Compliance with Air Quality Regulatory Requirements:

- National Fuel is committed to complying with all Federal CAA, FERC, and state air quality and emissions-related regulatory requirements during both construction and operation of the Wheatfield facility
 - Resulting controlled BTEX emissions are expected to be below analytical detection levels (i.e., measured value is “not detectable”)
- Annual permitted emissions are worst-case assuming 8,760 hours per year and not representative of projected facility run time
 - Based on natural gas quality records, the Wheatfield facility is projected to operate for a minimal number of hours per year
- National Fuel encourages residents and surrounding communities to review the project website: www.natfuel.com/supply/NorthernAccess2016

Air Quality: Multi-Regulatory Agency Involvement



Federal Clean Air Act (CAA)
The basic driving force that forms the basis for National Air Pollution Control
❖ Promulgated, amended, and enforced by the EPA
❖ EPA may enforce state requirements where necessary

Air Pollution Control Regulations / Pollution Prevention Techniques

National Ambient Air Quality Standards (NAAQS)

Establishes national goals for ambient concentrations for six criteria pollutants
❖ Protects public health and sensitive populations
❖ Protects public welfare

National Emission Standards for Hazardous Air Pollutants (NESHAPS)

❖ Industry-specific standards for individual Hazardous Air Pollutants (HAPs)
❖ Regulates approximately 187 HAPs
❖ Major source controls are based on "Maximum Achievable Control Technology"

NOT APPLICABLE - NO NSPS ESTABLISHED

New Source Performance Standards (NSPS)

❖ Technology based standards that apply to specific categories of stationary sources
❖ Apply to new, modified, and reconstructed sources
❖ Promulgates reporting, operation and testing requirements, and emission limits for stationary sources
❖ Reflects the application of best demonstrated technology (BDT)
❖ Equipment manufacturers must meet regulatory design requirements

NOT APPLICABLE - AREA SOURCE

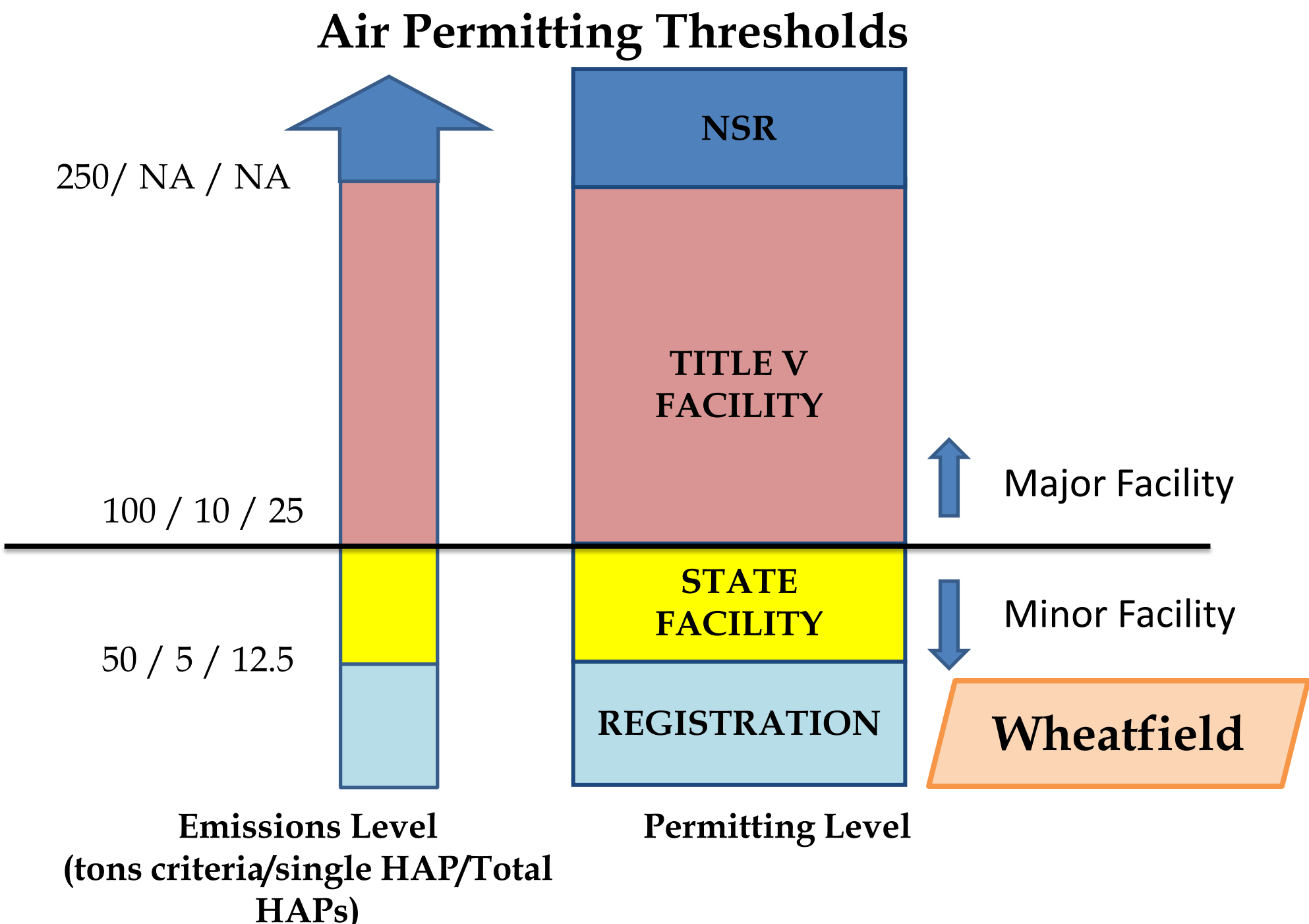
NYSDEC Implementation
NYSDEC Implements Federal CAA Requirements:
❖ EPA oversees and approves NY State Implementation Plan (SIP) for attainment of air quality standards
❖ NYSDEC develops and enforces NYS regulations which meet or exceed corresponding federal standards

Construction/Operating Permits
❖ Reviews and approves air permit applications
❖ NYSDEC issues air operating permits in accordance with the CAA

Inspection and Enforcement
Regulatory Agencies:
❖ Conduct facility inspections
❖ Perform enforcement activities for NYS and delegated federal regulations
❖ Review mandatory regulatory required recordkeeping elements included in the air permit

Continual Compliance
Permitted Facilities:
❖ Perform required recordkeeping, reporting, and notifications
❖ Continuous operation parameters monitoring
❖ Perform routine maintenance and leak detection and repair
❖ Conduct fuel sampling

As part of the Federal Energy Regulatory Commission (FERC) certification process, FERC ensures that air permitting is completed in accordance with applicable federal and state regulations



Low PTE Emissions = Minor Facility Permit

The NYSDEC is delegated permitting authority by the EPA under the CAA to regulate new/modified sources of air emissions in New York State

New York State classifies facilities as Major or Minor and issues permits based on the facility annual Potential to Emit (PTE) emissions

PTE = The maximum capacity of a facility to emit any regulated pollutant under its physical and operational design (i.e., worst case emissions)

Based on natural gas quality records, the Wheatfield Dehydration Facility is likely to operate for a minimal number of hours per year. Therefore, projected actual annual emissions are anticipated to be significantly less than the annual PTE emissions at which the facility is permitted.

MAJOR Facilities – “Largest Emitters”	MINOR Facilities	The proposed Wheatfield Dehydration Facility is anticipated to be classified as a Minor facility with PTE emissions less than 50 % of major source thresholds
PTE emissions greater than Major Source Thresholds	PTE emissions less than Major Source Thresholds	
❖ New Source Review (NSR) ▪ Prevention of Significant Deterioration (PSD) ▪ Nonattainment New Source Review (NNSR) ❖ Title V Permit	❖ State Facility Air Permit ❖ Air Facility Registration Certificate [actual emissions less than 50% of major source thresholds]	

Major Source Thresholds = Annual facility PTE emissions thresholds in tons per year (tpy) that classifies a facility as Major if exceeded for any of the specified pollutants.

MAJOR SOURCE THRESHOLDS (tpy)						
NO _x	CO	VOC*	Particulate Matter	SO ₂	Total Hazardous Air Pollutants (HAPs)	Individual HAPs
100	100	50	100	100	25	10

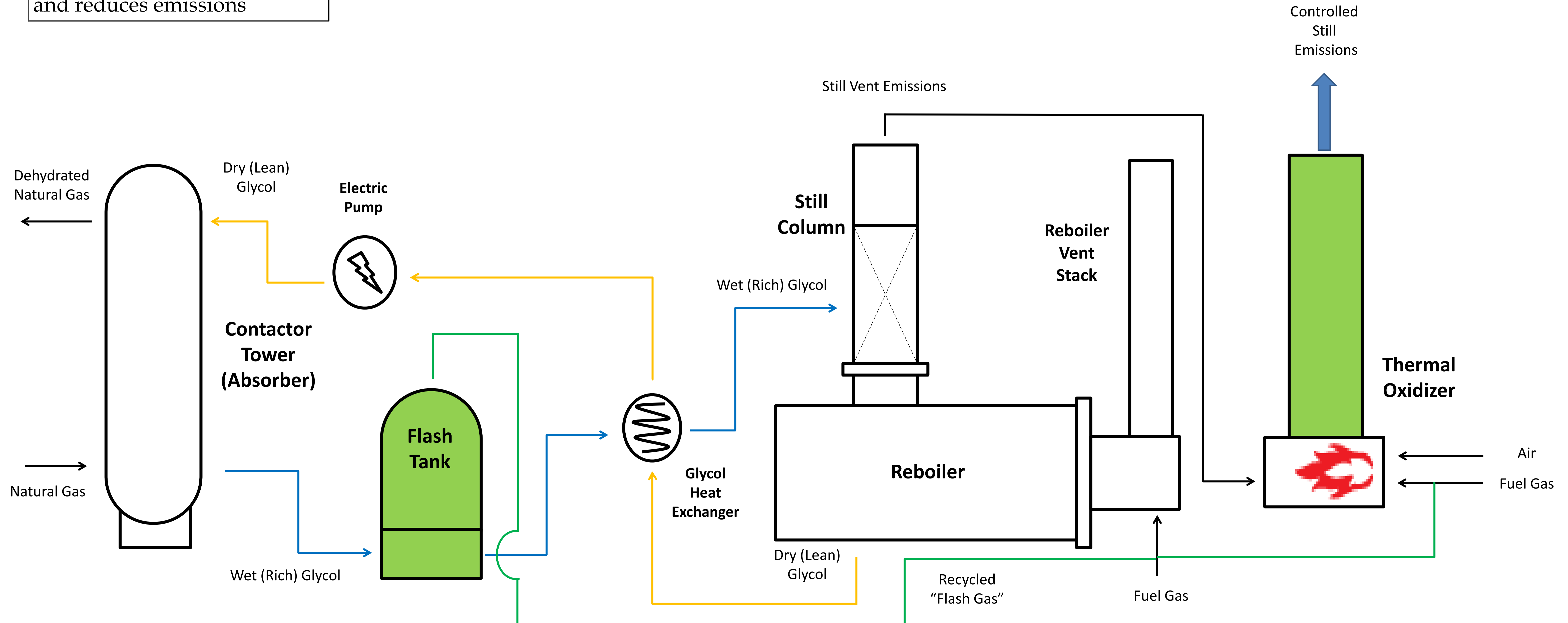
* The proposed Wheatfield Dehydration Facility is located in the “Ozone Transport Region” and therefore a reduced major source threshold for VOC of 50 tpy is applicable.

The Natural Gas Dehydration Process

Utilizing an electric pump instead of the more common gas-assisted pump increases dehydration system efficiency and reduces emissions

The flash tank and thermal oxidizer (green objects) are emissions control equipment. National Fuel will utilize these state-of-the-art emissions control technologies at the Wheatfield Dehydration Facility

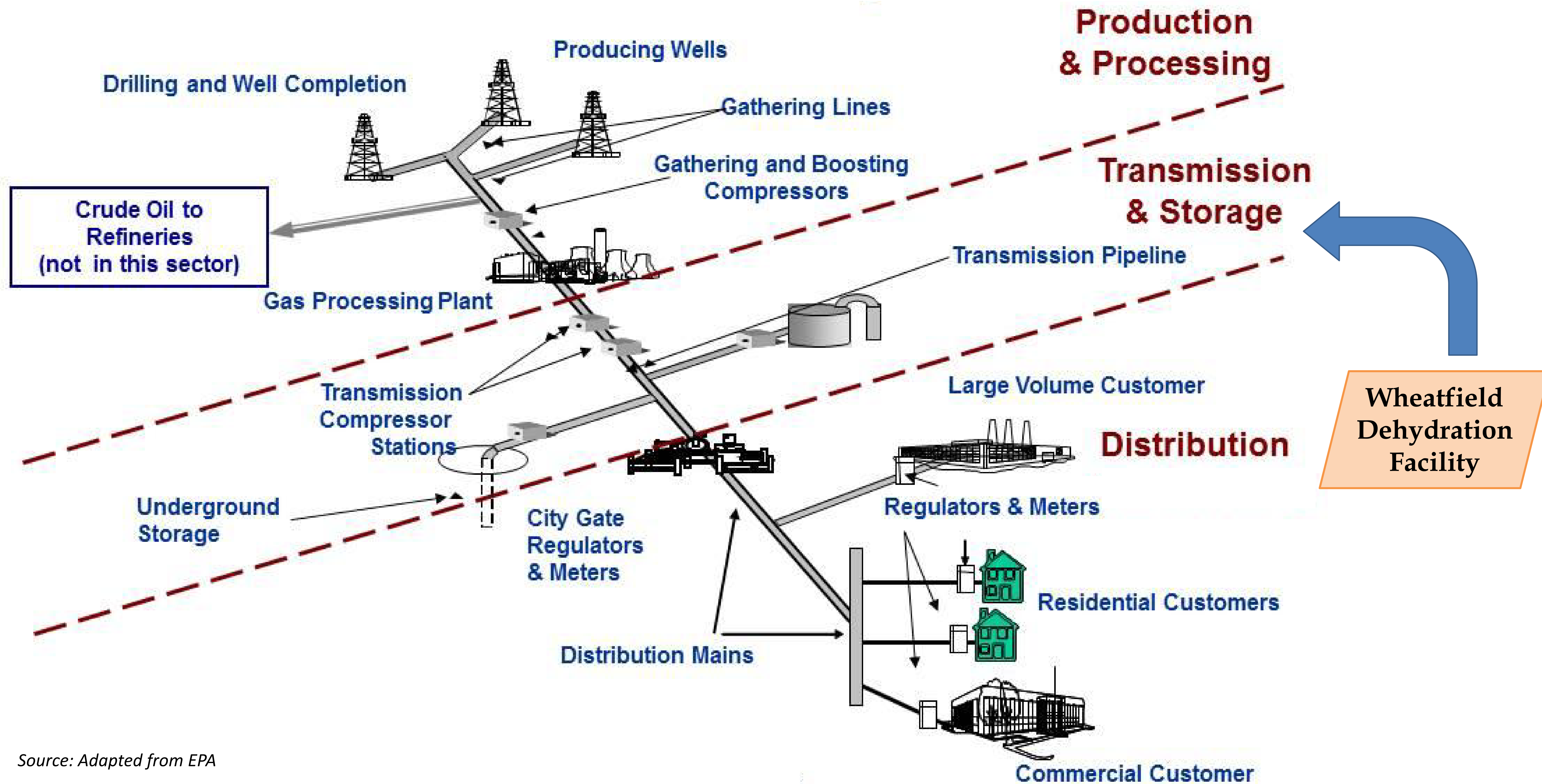
The thermal oxidizer is guaranteed to reduce still vent VOC/BTEX emissions by 99%



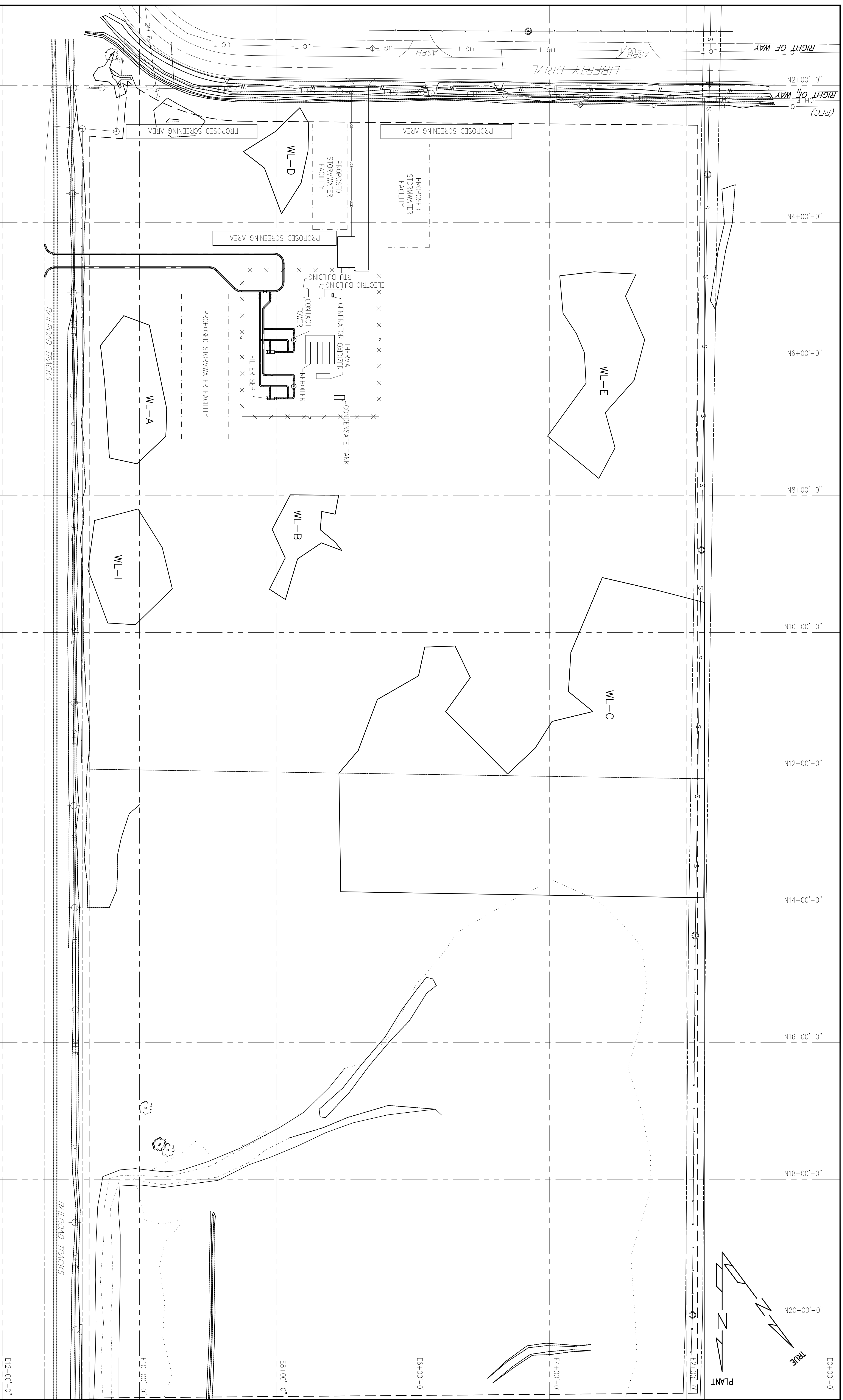
Inlet natural gas dehydrated upstream – majority of BTEX removed prior to reaching Wheatfield

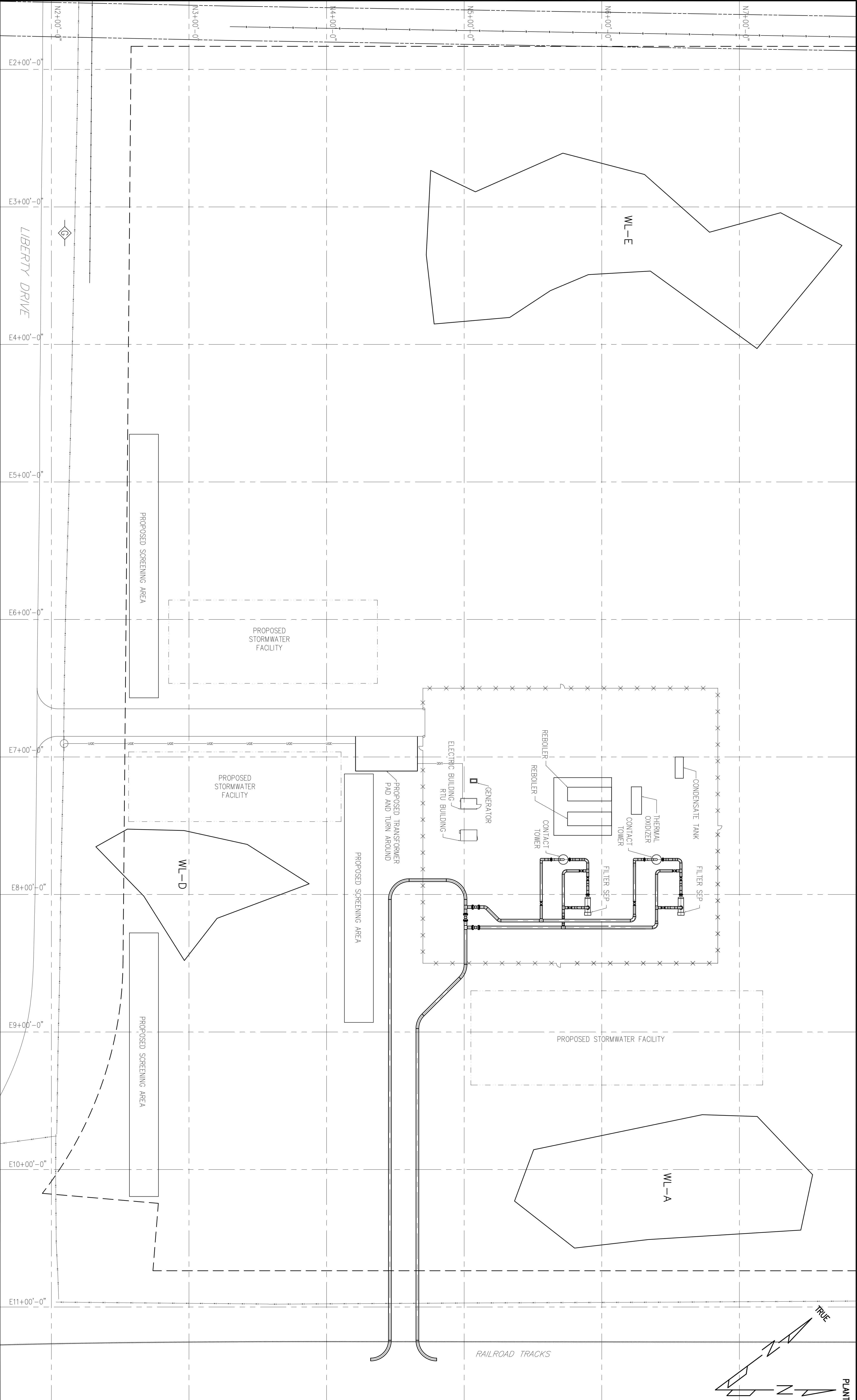
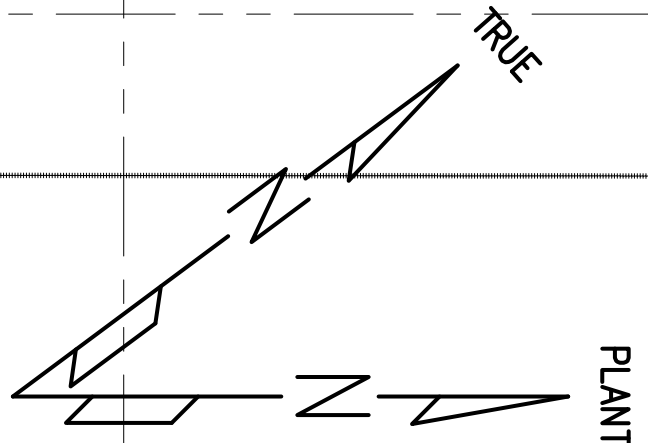
Flash tank recovers entrained methane and VOCs from the rich glycol stream which can be recycled as fuel for the thermal oxidizer or reboiler

The Natural Gas Industry



Natural gas in the transmission & storage sector has already been dehydrated and processed upstream to remove liquids (production & processing). This removes the majority of BTEX before entering the transmission pipeline. The Wheatfield Dehydration Facility is located in the transmission sector and therefore BTEX emissions will be substantially reduced from upstream dehydration and processing plants.

[illegible]





Call before you dig.
811 is the national number for
reporting underground utility
locations. Call 811 to get
the location of underground
utilities marked on your property.
It's the safe way to dig.

DWG NUMBER

REFERENCE DRAWING

CLT

REVISED PER COMMENTS

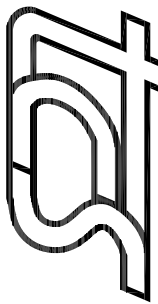
A

PRELIMINARY

CLT

CHK

DESCRIPTION



total control

COMMERCIAL, OHIO
(740) 752-6162

ENGINEERING APPROVALS	
BID	CONSTRUCTION
DESIGNED CLT 11/6/15	
DRAWN CLT 11/6/15	
CHECKED	
APPROVED	
TITLE	DATE
SIGNATURE	DATE
SIGNATURE	DATE

DEHY STATION
ENLARGED PLOT PLAN

LOC. NIAGARA COUNTY, NEW YORK

SCALE 1" = 30'-0"

TCS JOB # 290

DWG # 290-A-0002

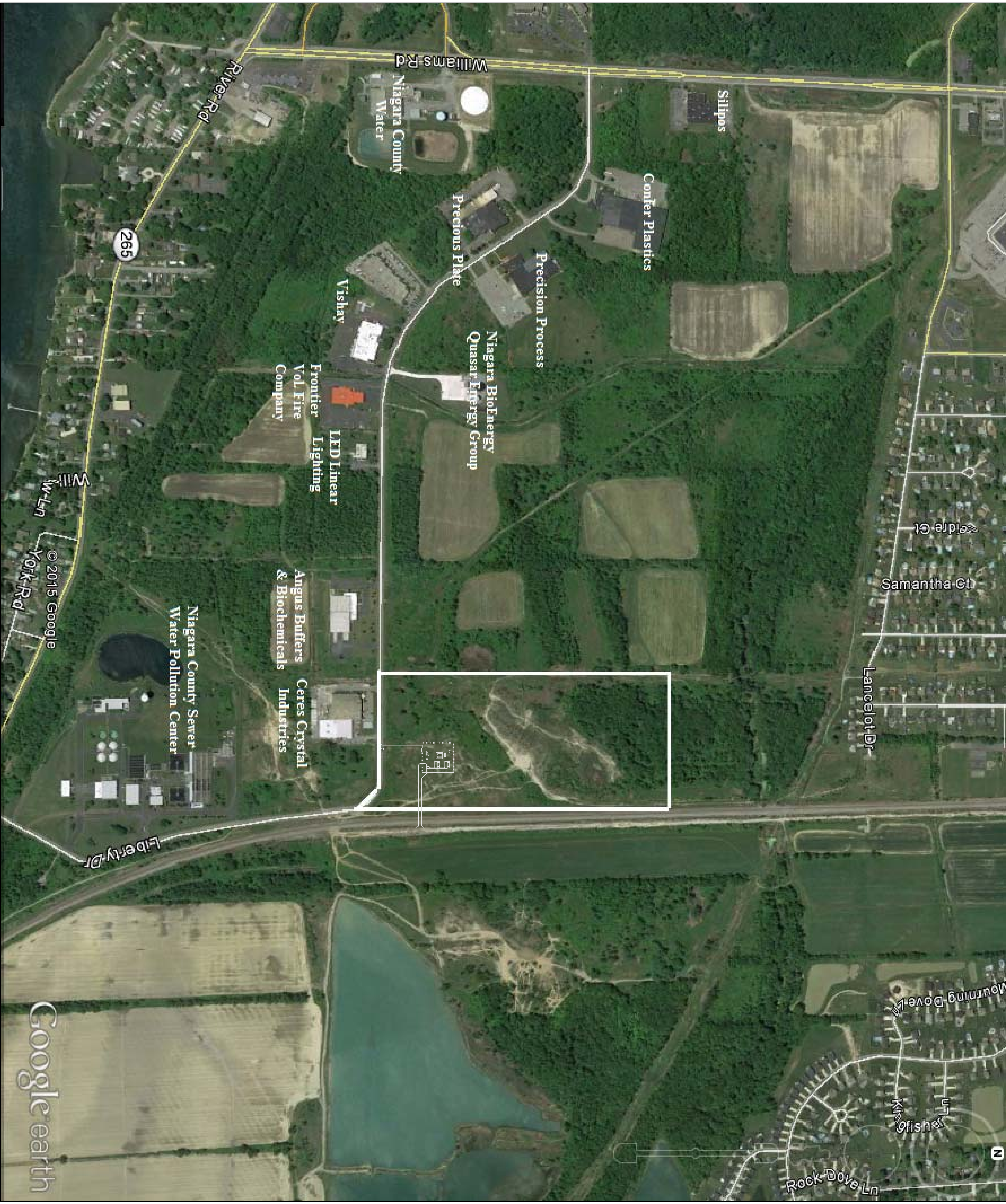
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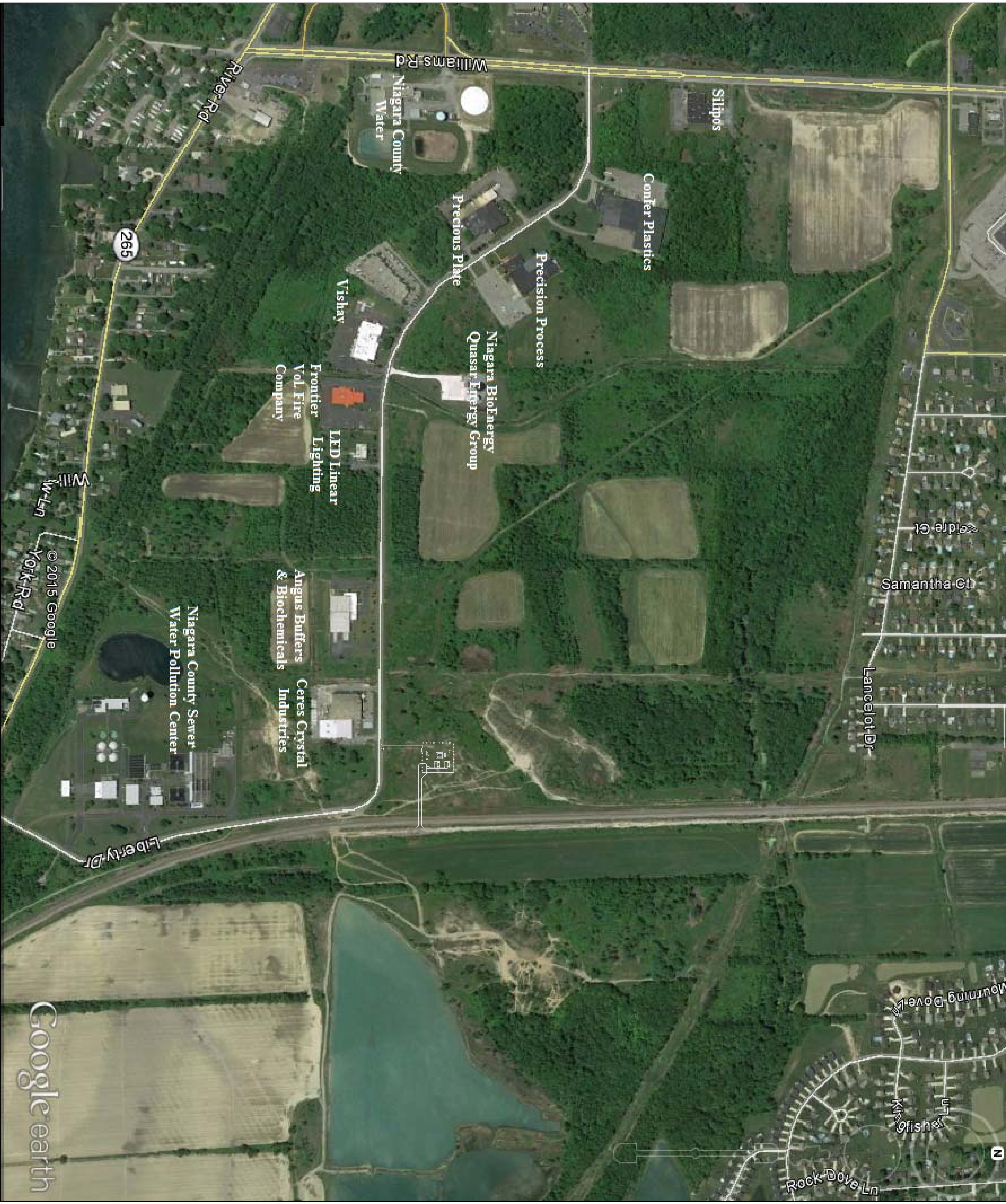
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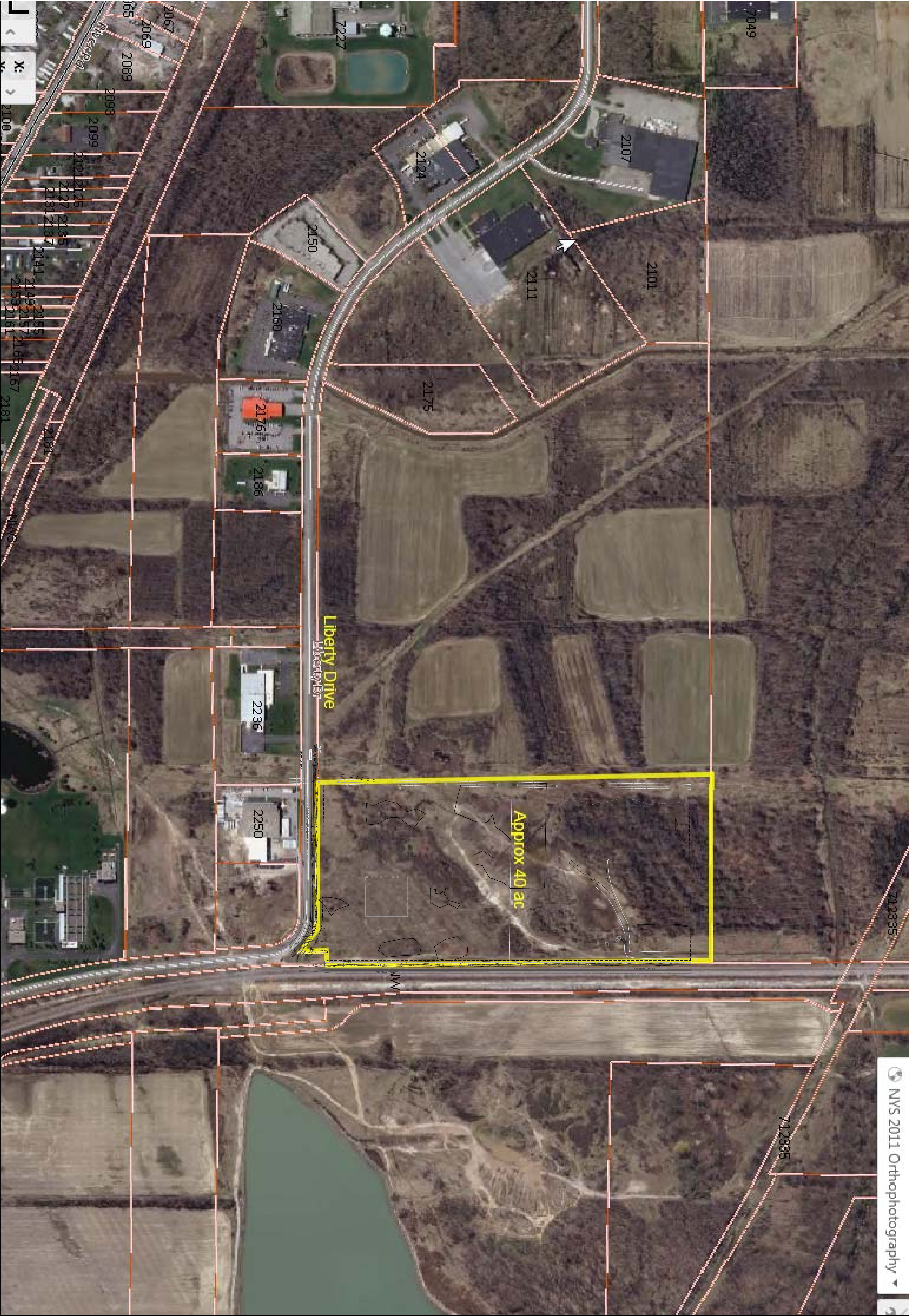


empire pipeline
A National Fuel Gas Company

WHEATFIELD DEHY STATION







712835

712835

Liberty Drive

Approx 40 ac

Liberty Road

2107

2111

2124

2150

2160

2175

2176

2186

2236

2250

2067

2069

2065

2089

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2099

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