FORMER KIL-TONE COMPANY SUPERFUND SITE

PROPOSED PLAN PUBLIC MEETING
Operable Unit Two
Non-Residential Soil

August 13, 2019

538244

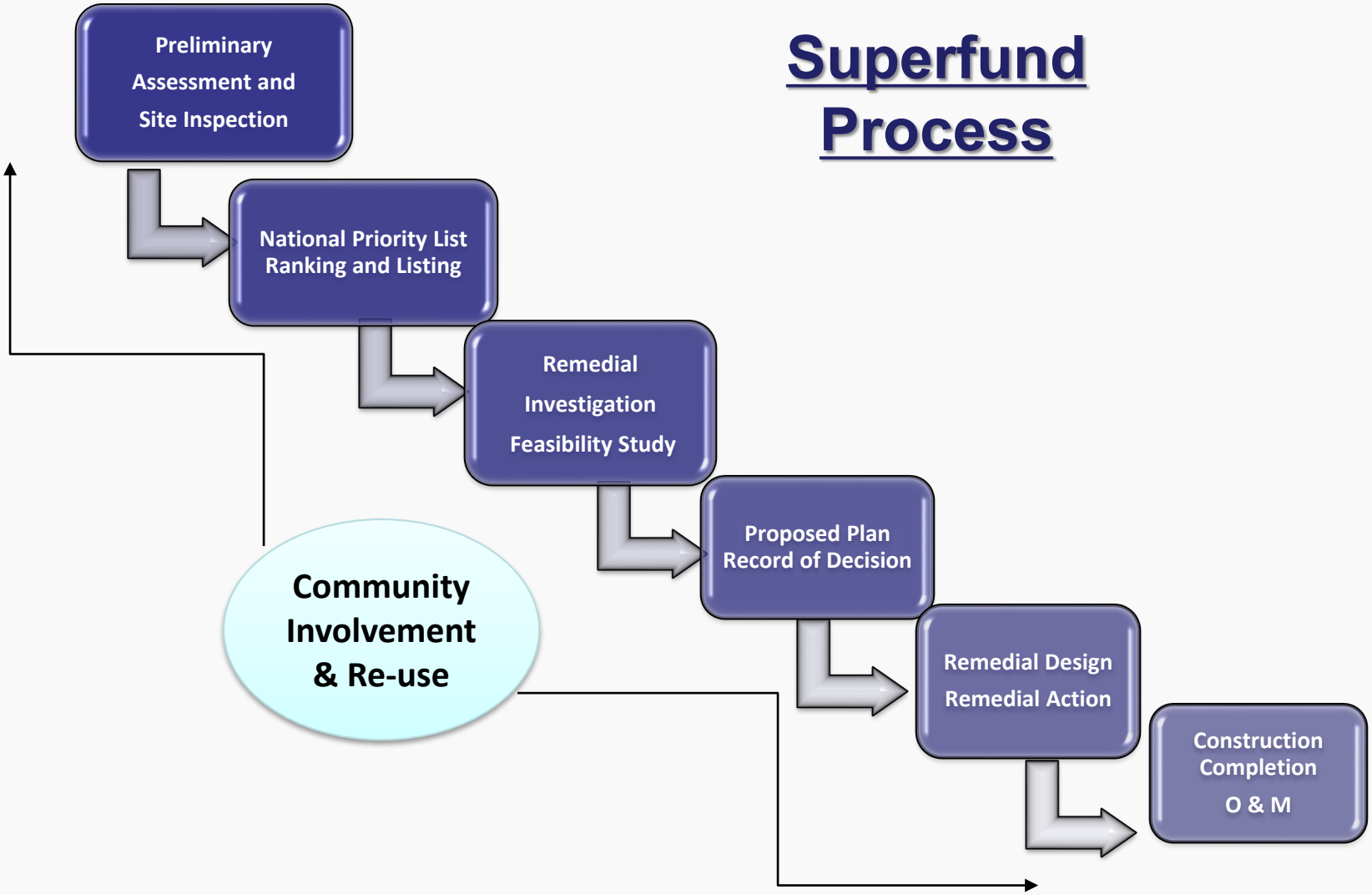
Agenda

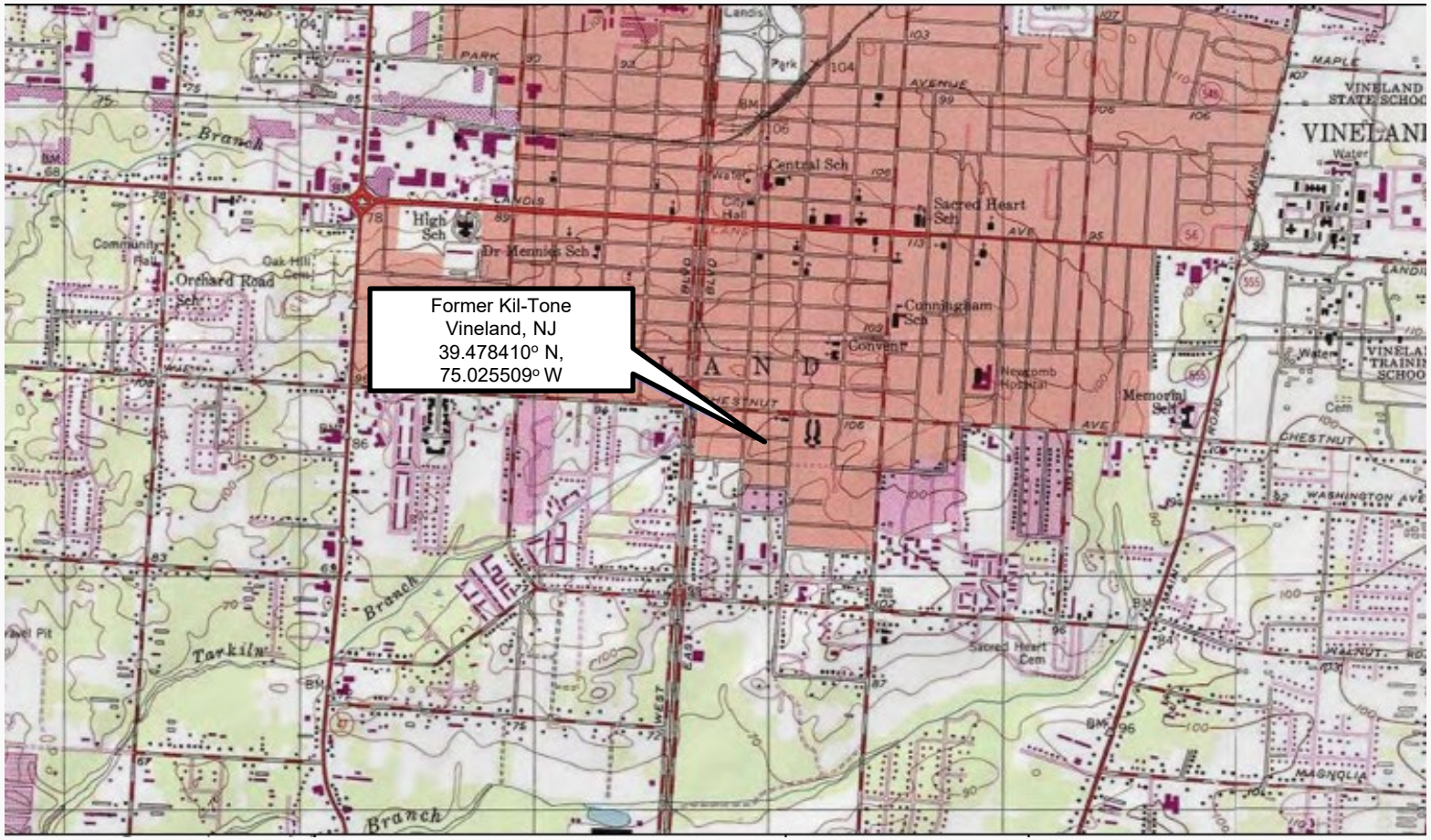
- Welcome
- Introductions
- EPA & Superfund Program
- Site History
- Investigations
- Remedial Alternatives Considered
- EPA's Preferred Alternative
- Next Steps
- Questions & Comments

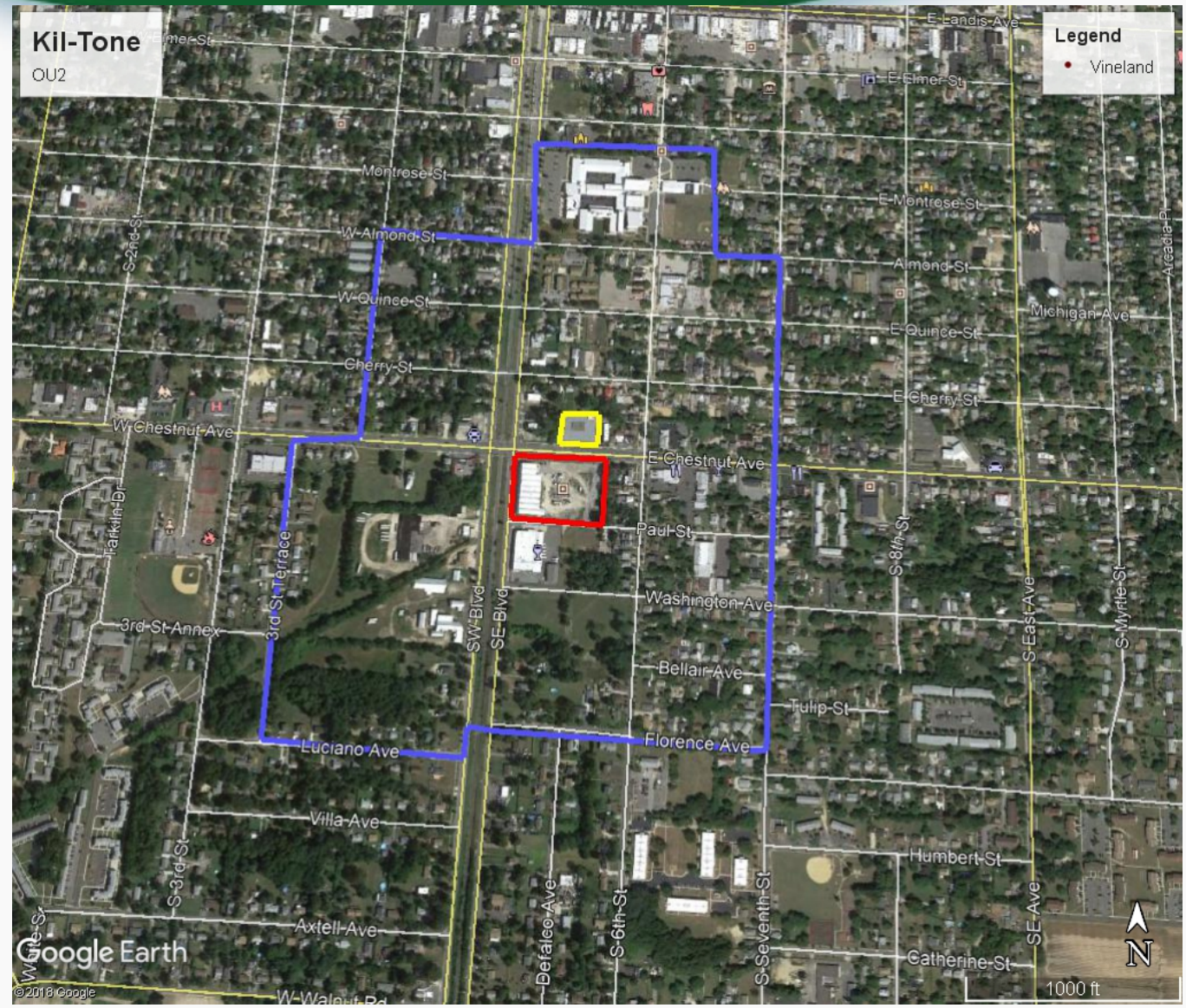
Why are we here tonight?

- To discuss EPA's Proposed Remedial Action Plan for Operable Unit two of the Former Kil-Tone Company Superfund Site – Non-Residential Properties
- EPA will be accepting written and verbal comments until Wednesday, August 28th, 2019.
- All public comments will be considered and included formally in the Administrative Record.
- EPA will assess public comments in its Record of Decision Responsiveness Summary.

Superfund Process




Former Kil-Tone
Vineland, NJ
39.478410° N,
75.025509° W
Central Sch
Sacred Heart Sch
High Sch
Dr Mennies Sch
Orchard Road Sch
Community Hall
Oak Hill Cem
Cunningham Sch
Convent
Newcomb Hospital
Memorial Sch
Sacred Heart Cem
Tarkiln Branch
Branch
Branch
PARK
AVENUE
MAPLE
CHESTNUT
WASHINGTON AVE
MAGNOLIA
WALNUT
MAIN
LANDIS
PLEASANT MILLS BLVD
WEST
VINELAND



Former Kil-Tone Facility

Lerco Fuel Company

Approximate Site Boundary

KIL-TONE

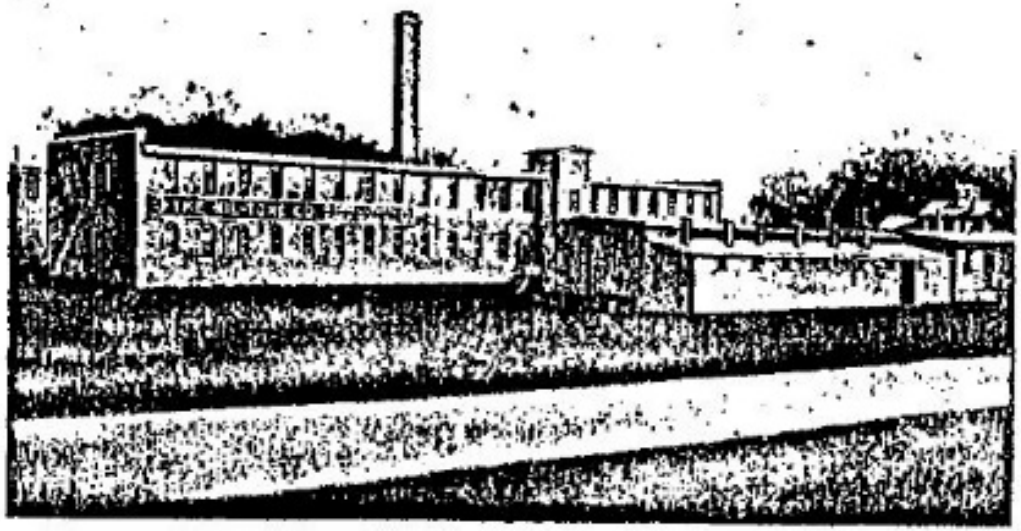
AGRICULTURAL SPRAYS AND CHEMICALS

IMPROVED KIL-TONE

MODIFIED KIL-TONE

SULPHO ARSENATE

BEETLEMORT POWDER



NORTHEAST BUILDING

GREEN CROSS ARSENATE OF LEAD

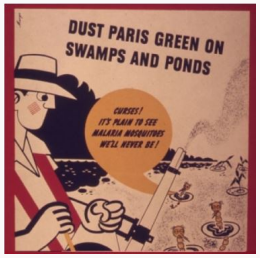
FRUIT KIL-TONE

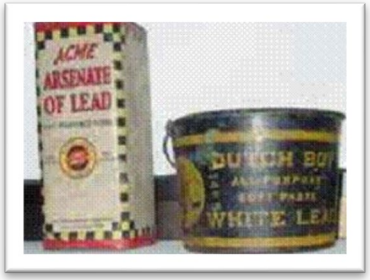
FLY SKAT

THE KIL-TONE COMPANY :: Vineland, New Jersey

Site Background

- The former Kil-Tone Company began operations at the property on or about 1917.
- Arsenic and lead-based pesticides were manufactured at the former Kil-Tone facility from 1917 until 1933.
- Specific compounds included lead arsenate, London purple, Paris green, copper lime calcium arsenate dust.
- The property is currently occupied by a sign manufacturing and installation company.
- Cleanup of a fuel distribution facility across the street triggered an investigation of the former Kil-Tone property in 2014.





Early Response Actions

- August 2014 - NJDEP investigation
- November 2014 – NJDEP refers the site to EPA
- January 2015 – February 2016 – EPA Removal Program conducts sampling in the vicinity of the former facility property
- March 2016 – EPA conducts removal action to provide temporary protection at properties that exceed removal action levels
- April 2016 – Site is added to the National Priorities List


Vineland
Former Kil-Tone Company Property
Tarkiln Branch
Parvin Branch
Maurice River
Union Lake
Cumberland County College
Cumberland Mall
Sacred Heart Cemetery
Little Robin Branch
Woodlawn Ave
W Chestnut Ave
Chimes Ter
W Walnut Rd
Axteli Ave
W Montrose St
W Quince St
E Cherry St
S Mill Rd
S Orchard Rd
Lilac Dr
S West Ave
S 7th St
S East Ave
Harding Rd
Parvin Branch
Fava Dr
N Koff Dr
W Elmer Rd
E Elmer Rd
Garrison Rd
S Delsea Dr
S West Blvd
S Main Rd
Roosevelt Blvd
Cherokee
Garry Ave
Nona Dr
Brunetta Dr
W Sherman Ave
Hendricks Rd
Beacon Ave
W Butler Ave
E Butler Ave
Hope St
Rutgers Dr
Mildred Ln
Corvair Dr
Burns Ave
Blue Bird Ln
622
628
552
47
555
655

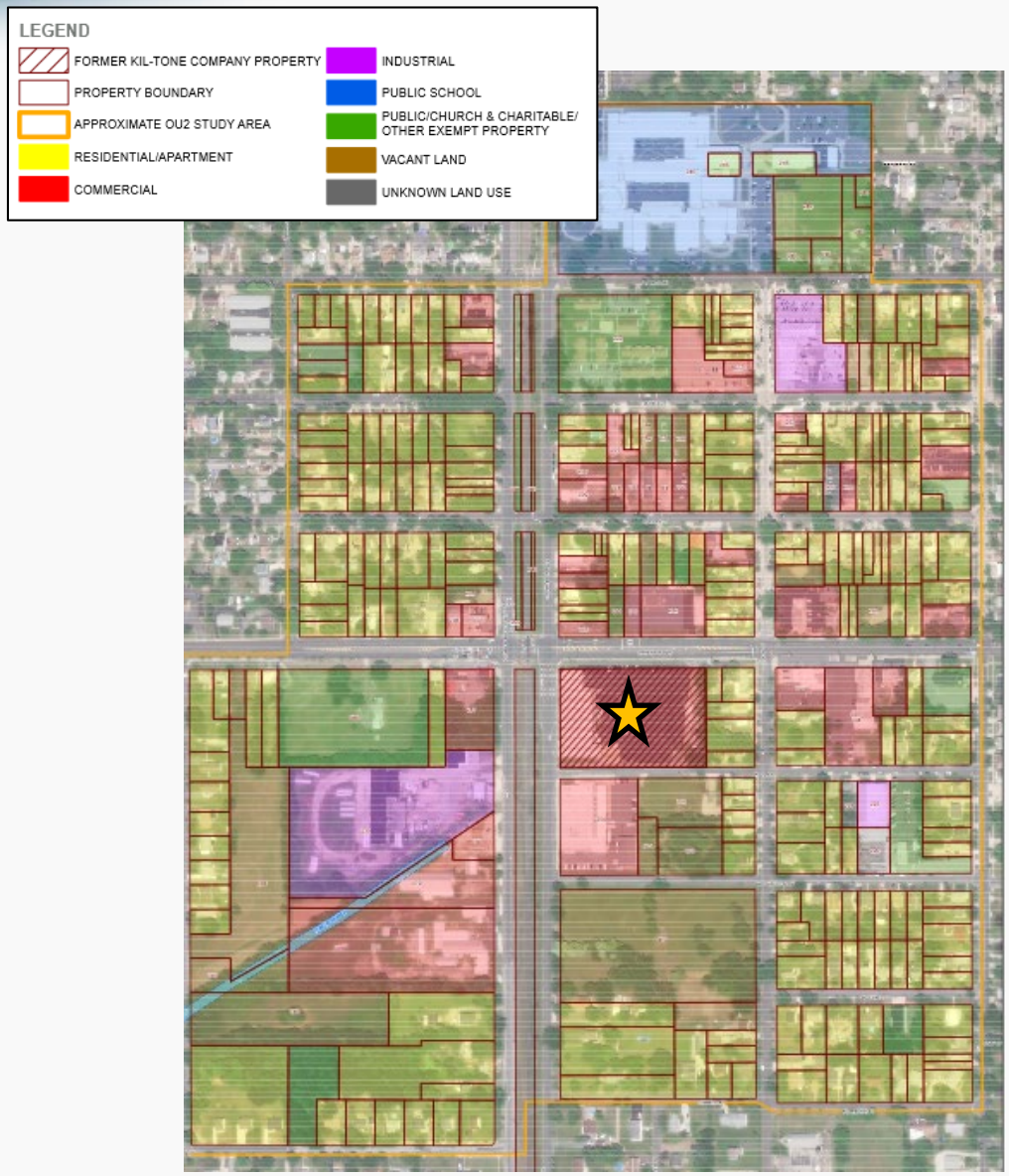
Operable Units

- A site can be divided into a number of distinct areas depending on the complexity of the problems associated with the site.

- These areas may address geographic areas of a site, specific site problems, or areas where a specific action is required.

Operable Units

- *Operable Unit 1: Residential Properties in the vicinity of the former Kil-Tone facility – Clean-Up Ongoing*
- ***Operable Unit 2: Non-Residential Properties in the vicinity of the former Kil-Tone facility*** ★
- *Operable Unit 3: Groundwater in the vicinity of the former Kil-Tone facility*
- *Operable Unit 4: Tarkiln Branch sediment and adjacent properties*

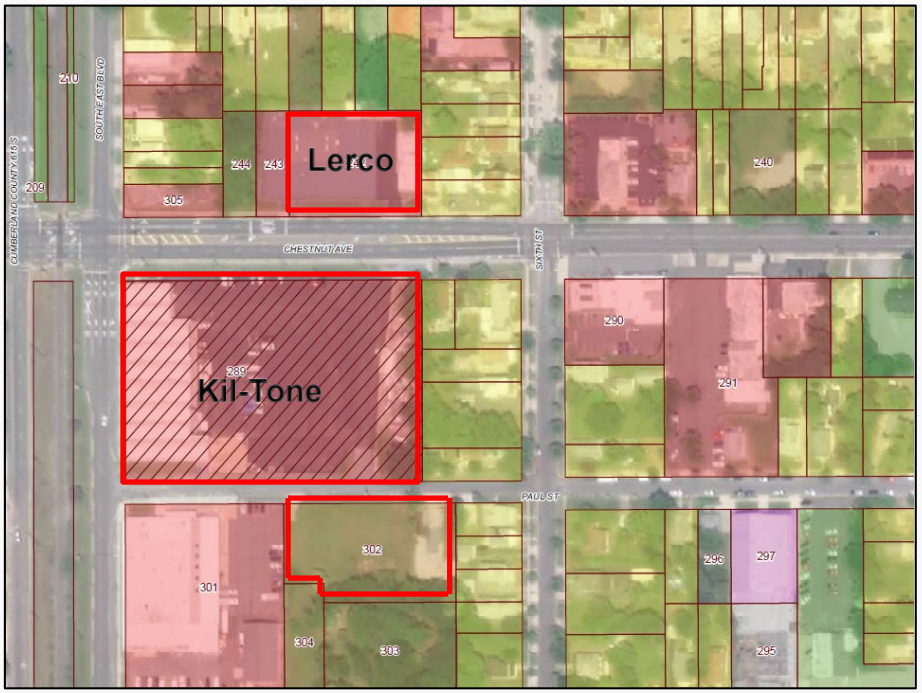


Operable Unit 2 Investigations and Studies

- Remedial Investigation (RI) – Finalized in 2018
  - Characterizes site conditions
  - Determines the nature and extent of contamination
  - Assesses risk to human health

- Focused Feasibility Study (FFS) – Finalized in 2019
  - Develops potential remedial alternatives
  - Screens remedial alternatives for effectiveness
  - Evaluates remedial alternatives against each other

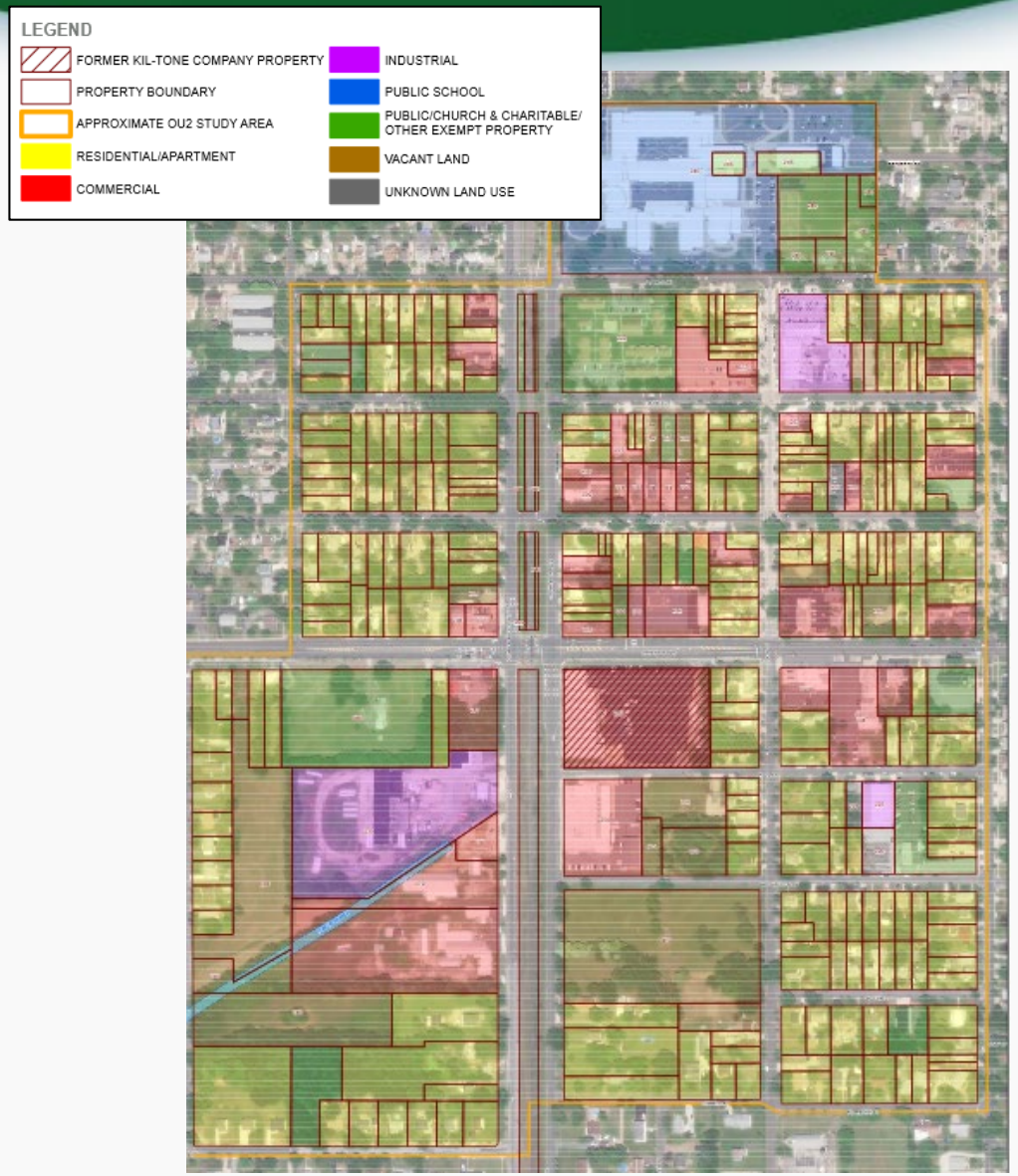
Tier A Soil Sampling



LEGEND

- FORMER KIL-TONE COMPANY PROPERTY
- PROPERTY BOUNDARY
- APPROXIMATE OU2 STUDY AREA
- RESIDENTIAL/APARTMENT
- COMMERCIAL
- INDUSTRIAL
- PUBLIC SCHOOL
- PUBLIC/CHURCH & CHARITABLE/ OTHER EXEMPT PROPERTY
- VACANT LAND
- UNKNOWN LAND USE

- **Conducted in August 2017**
- **Sampling included the former Kil-Tone facility and the Lerco property**
- **Surface and subsurface soil samples collected throughout these properties and analyzed for the full suite of potential contaminants**
- **Purpose**
  - Determine which contaminants present in soil are related to the operations of the Former Kil-Tone Company
  - Data also used to determine nature and extent of contamination on the properties



Tier B Soil Sampling

- Conducted between September 2017 and March 2018
- Sampled approximately 50 non-residential properties in the vicinity of the former Kil-Tone facility
- Analyzed samples for metals and Polycyclic Aromatic Hydrocarbons (PAHs)

Investigation Findings

Former Kil-Tone property:

- Arsenic in soil up to 45,900 mg/kg
- Lead in soil up to 91,700 mg/kg
- Elevated concentrations found at some locations below the depth of the groundwater table

Other OU2 Properties:

- Arsenic in soil up to 15,900 mg/kg
- Lead in soil up to 16,100 mg/kg
- Concentrations of lead and arsenic in soil decrease with distance from the former Kil-Tone property.
- Elevated concentrations generally found in shallow soil (above 4 feet below ground surface), but in some cases deeper

Risk Assessments

- Human Health Risk
  - Risks to current and potential future workers and residents were assessed
  - Both cancer risks and non-cancer hazards exceeded EPA's acceptable risk levels due to arsenic in soil
  - Risks due to lead in soil also exceeded EPA's regional target
- Ecological Risk
  - Screening level assessments found arsenic and lead pose the potential for adverse effects to terrestrial plants and soil invertebrate communities
- Since unacceptable risks are present, a remedial action must be taken

OU2 Remedial Action Objectives

- Remedial Action Objectives – Specific cleanup goals for a Superfund site that ensure the protection of human health and the environment.
  - Prevent current and potential future unacceptable risks to human receptors resulting from direct contact with contaminated soil;
  - Prevent migration of contaminants of concern (COCs) from the OU2 properties to other areas via overland flow and air dispersion;
  - Prevent or reduce the migration of COCs from soil to groundwater; and
  - Prevent current and potential future unacceptable risks to ecological receptors resulting from direct contact with contaminated soil.

Soil Cleanup Goals

COC	Non-Residential (mg/kg)	Residential (mg/kg)	Impact to Groundwater (mg/kg)	Plant – LOEL (mg/kg)	Soil Invertebrates – LOEL (mg/kg)
Arsenic	19	19	19	69	93.7
Lead	800	400	Pending	500	3,162

- Residential or non-residential lead remediation standards will be applied on a case-by-case basis
- Based on conversations with the City of Vineland, most of the properties could potentially be zoned as residential in the future

Proposed Plan

Remedial Alternatives

- **Alternative #1** – No Action
- **Alternative #2** – Engineering Controls (Capping/Access Control) and Institutional Controls
- **Alternative #3** – Excavation to Groundwater Table, Engineering Controls and Institutional Controls
- **Alternative #4** – Excavation Below Groundwater Table, Engineering Controls and Institutional Controls

The Nine Evaluation Criteria

Threshold Criteria

- Overall Protection of Human Health and the Environment
- Compliance with Applicable or Relevant and Appropriate Standards

Balancing Criteria

- Long-Term Effectiveness and Permanence
- Reduction of Toxicity, Mobility and Volume through Treatment
- Short-Term Effectiveness
- Implementability
- Cost

Modifying Criteria

- Community Acceptance
- State Acceptance

Comparison of Alternatives

Alternative	Estimated Quantity of Excavated Soil	Cost Estimate	Estimated Timeframe
Alternative 1	0	$0	0
Alternative 2	8,650 cubic yards	$8.1 million	15 months
Alternative 3	57,800 cubic yards	$36 million	35 months
Alternative 4	86,600 cubic yards	$58.4 million	50 months

Preferred Alternative: Alternative 3

- **Excavation to Depth of Contamination (not to exceed depth of groundwater table), Engineering Controls and Institutional Controls**
  - Excavation of soil in exceedance of the appropriate property-specific soil remediation standard
  - Off-site disposal of excavated soil
  - Institutional controls
  - Long-term monitoring

Preferred Alternative: Alternative 3

- Provides protection of human health and the environment by removing contaminated soil
- Meets RAOs and achieves property-specific soil cleanup standards
- Relies less heavily on institutional controls than Alternative 2
- More cost-effective and easily implementable than Alternative 4

Next Steps

- Reviewing and addressing public comments
- Signing the Record of Decision
- Completing the Remedial Design
- Completing the Remedial Action

Public Comment Period

- July 30, 2019 through August 28, 2019
- Address written comments to:

  Sharon Hartzell, Remedial Project Manager
  U.S. Environmental Protection Agency
  290 Broadway, 18th Floor
  New York, NY 10007
  Fax: (212) 637-4132
  Email: hartzell.sharon@epa.gov

- Verbal and written comments will be accepted during this public meeting and throughout the public comment period

- http://www.epa.gov/superfund/former-kil-tone