

# 1807-1815 N. Kimball Avenue

## EPA Cleanup Grant Remediation Project

Virtual Community Meeting  
November 10, 2021

City of Chicago Department of Assets, Information and Services

**For questions and comments contact:**

312.744.0500 | [AIS\\_EHS\\_Notifications@cityofchicago.org](mailto:AIS_EHS_Notifications@cityofchicago.org)

[www.chicago.gov/kimball](http://www.chicago.gov/kimball)



# Housekeeping

- Please keep yourself muted and use the chat feature to ask questions.
- Closed captioning with translation is enabled.
- Q&A will occur at the end of the presentation; please enter your questions in the chat box.
- The presentation is being recorded and will be posted on our website after the meeting.

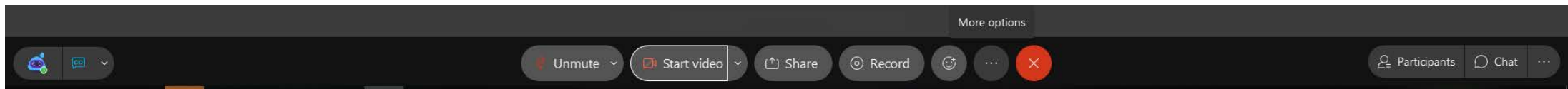
**Closed Captioning/Translation**



**More options**



**Chat**



# Project Partners and Funders



**Project Partner**



**Project Partner**



**Project Partner**



**Project Funder**

# Virtual Meeting Agenda

## 1. Introduction to Speakers

- Abby Mazza, AIS
- Shannon Flanagan, AECOM

## 2. Site Overview

- Site Background
- Phase I ESA
- Summary of Subsurface Investigations
- Site Contamination

## 3. EPA Cleanup Grant

- Overview
- ABCA
- Budget
- Timeline

## 4. Remediation Plan

- Remediation Plan Details
- Air Monitoring
- Dust and Vapor Protection
- Other

## 5. Community Outreach



Photo: View of Kimball Site looking west

# Site Background



- The City of Chicago acquired the Site in 2005 through foreclosure.
- The site was vacant at the time of acquisition.

Photo: View facing east through N Kimball Site gate



# ★ Phase I Environment Site Assessment (ESA)

- A Phase I ESA was performed to identify historical uses and recognized environmental conditions (RECs).
- Several RECs were identified associated with previous uses which include the following:
  - lumberyard
  - manufacturing of laundry machines and fluorescent fixtures
  - painting
  - warehousing; and
  - machine shop operations.

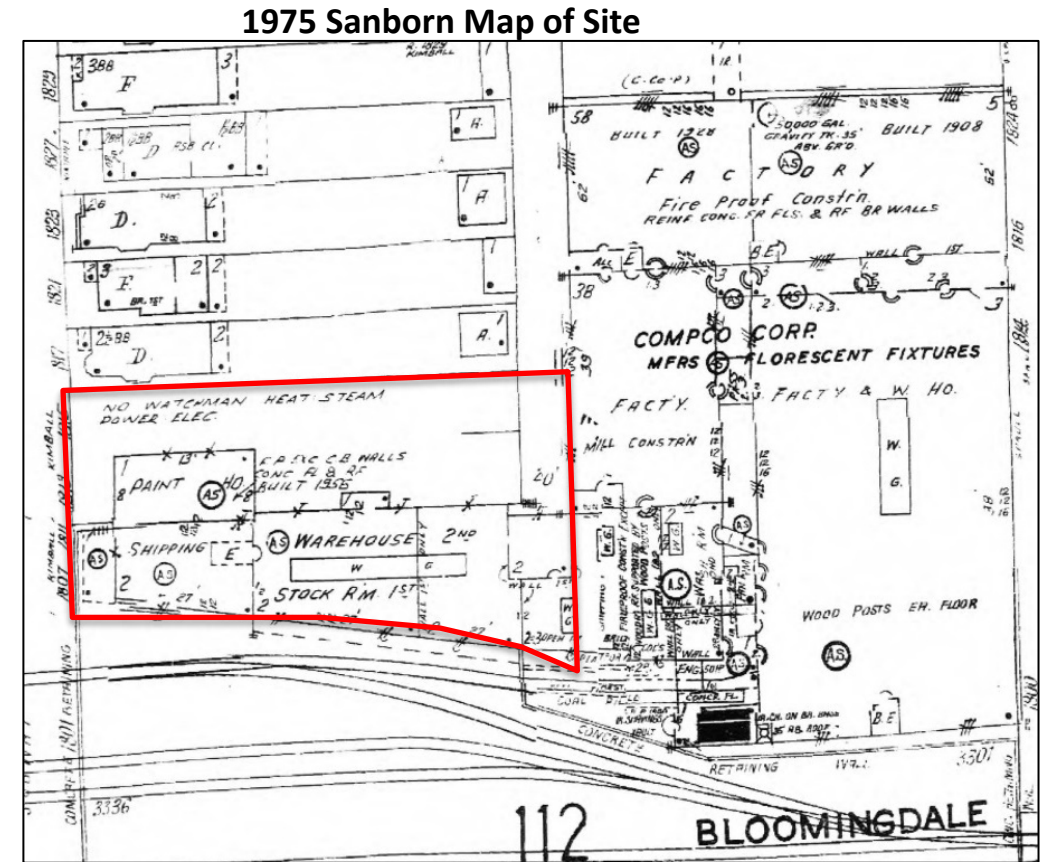


Image: 1975 Sanborn Map with Kimball Site outlined in red



# Summary of Subsurface Investigations

Year	Purpose	Scope of Work
2010	Initial Phase II Environmental Site Assessment, based on Phase I RECs	<ul style="list-style-type: none"> <li>• Soil sampling to depths of 6 to 24 feet</li> <li>• Groundwater sampling at three locations</li> </ul>
2012	U.S. EPA Comprehensive Site Investigation (CSIR)	<ul style="list-style-type: none"> <li>• Additional soil and groundwater sampling to 20 feet</li> <li>• Confirmation of volatile organic compound (VOC) impacts including trichloroethylene or TCE</li> </ul>
2013	Determine vertical extent of VOC contamination and evaluate inhalation impacts	<ul style="list-style-type: none"> <li>• Additional soil sampling to 30 feet</li> <li>• Additional groundwater sampling</li> <li>• Initial soil gas sampling</li> </ul>
2018	Define the extent of TCE hot spot area, to determine soil vapor impacts, and to inform soil remediation design	<ul style="list-style-type: none"> <li>• Soil sampling for hot spot delineation</li> <li>• Additional groundwater and soil gas sampling</li> <li>• Collection of sample for remediation bench test</li> </ul>
2020-21	Geotechnical evaluation for excavation support design, offsite impact assessment and refinement of TCE hot spot area	<ul style="list-style-type: none"> <li>• Geotechnical sampling to 50 feet</li> <li>• Additional soil sampling along edge of hot spot area</li> <li>• Soil gas and groundwater sampling offsite</li> </ul>

# ★ Site Contamination - Evaluating the Results

- Results have been compared to the Illinois Environmental Protection Agency's (IEPA's) Tiered Approach to Corrective Action Objectives (TACO).
- TACO is IEPA's method for developing remediation objectives to assess sources of soil and groundwater contamination.
- Tier 1 Objectives are risk-based and land-use and pathway specific.
- Using TACO, IEPA administers the voluntary Site Remediation Program (SRP).
- SRP enrollment allows applicants to receive IEPA review, technical assistance and no further remediation determinations

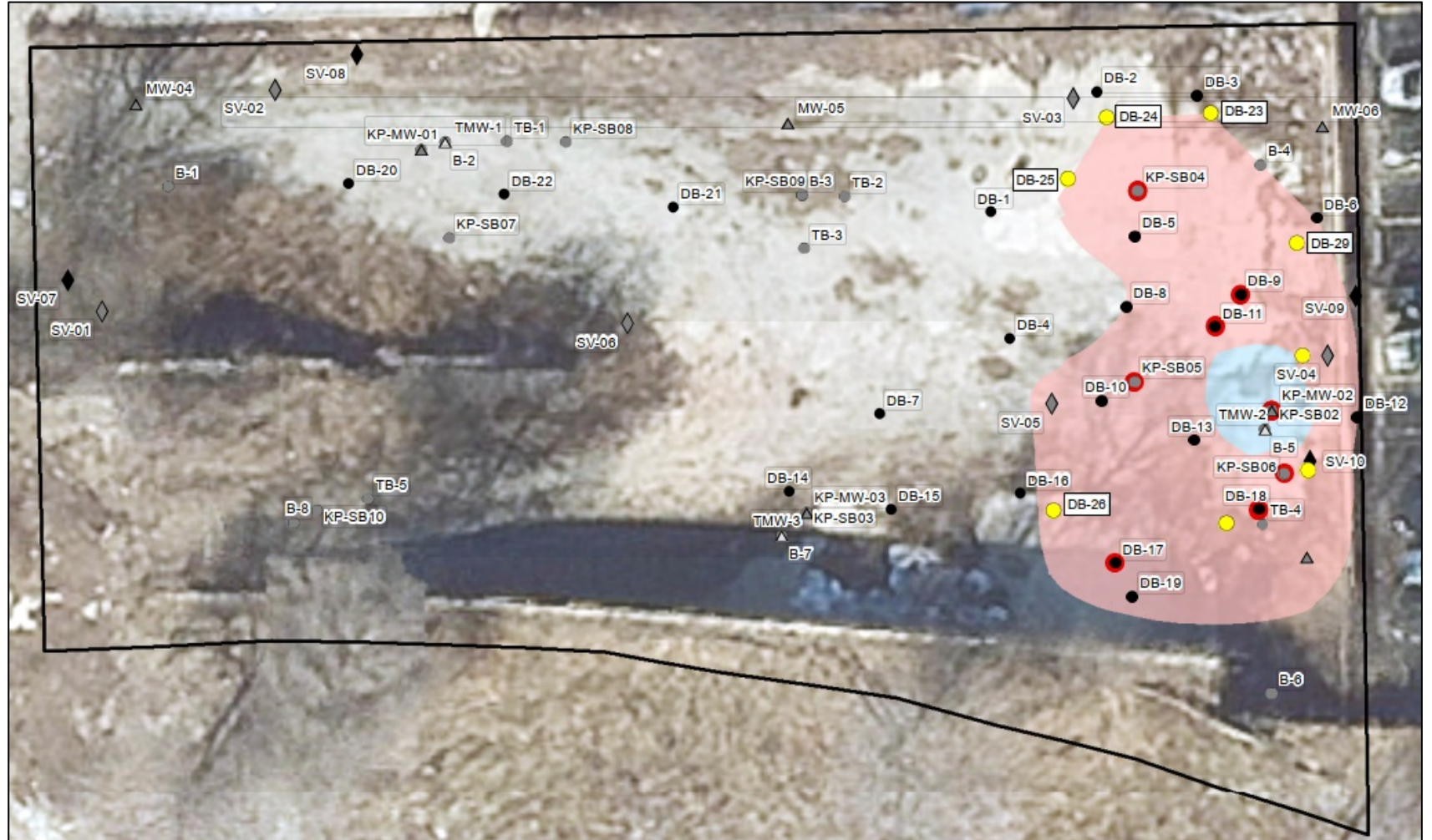


If a source is present and pathways to receptors are complete, there may be risk to human health or the environment, and action to remediate the source or break the path to receptors is needed.



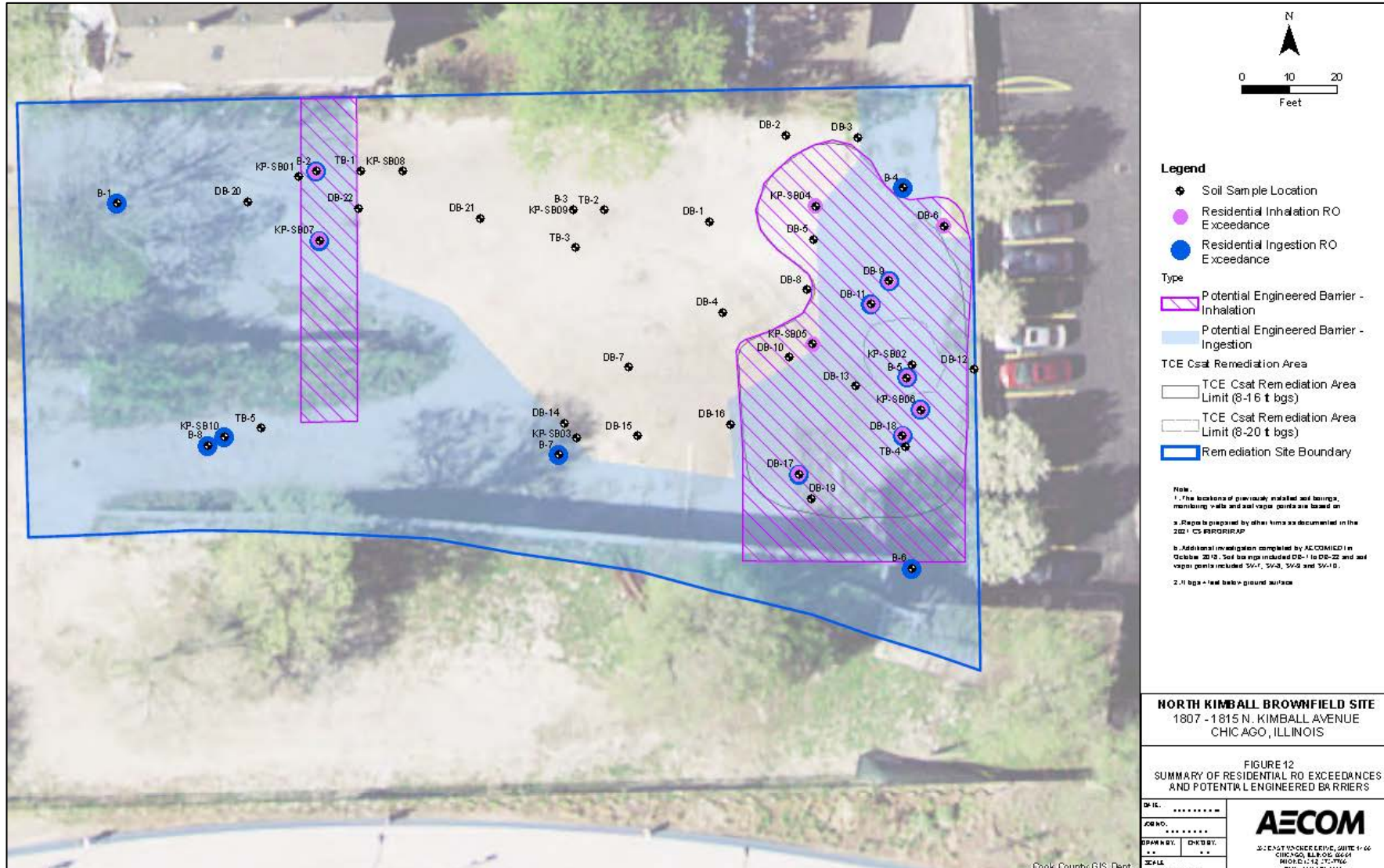
# Site Contamination – TCE hot spot

- A TCE source area (“hot spot”) is along eastern portion of site
- TCE hot spot depth:
  - 8-16 ft below ground surface (bgs) (red)
  - 8-20 ft bgs (blue)
- **Remediate Source:** Soil exceeds the soil saturation limit for TCE and requires active treatment or removal





# Site Contamination - Soil



## Soil Ingestion and inhalation:

- Residential and construction worker (CW) exceedances for:
  - VOCs\*
  - PNAs\*\* (residential only)
  - Metals

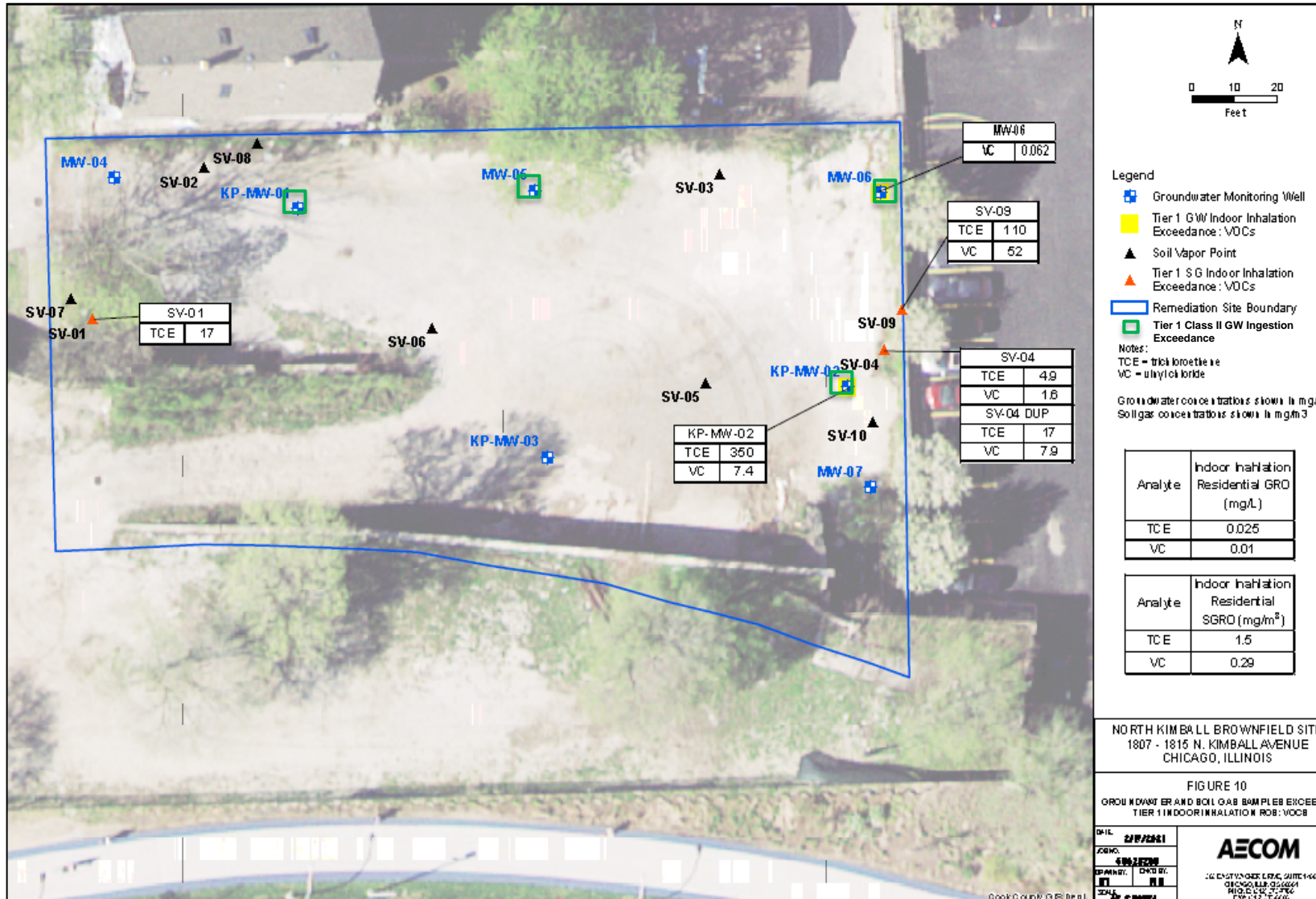
## Break Pathway to Receptor:

Residential exceedances will be managed using engineered barriers, installed during later phase/redevelopment and CW exceedances using caution statements/health and safety plans

\*VOCs: Volatile Organic Compounds

\*\*PNAs: Polynuclear Aromatic Hydrocarbons

# Site Contamination – Groundwater and Soil Vapor



## Groundwater Ingestion:

- Class II Groundwater exceedances: VOCs and Metals (iron)
- **Break Pathway to Receptor:** Will be addressed using institutional controls (City's groundwater prohibition ordinance)

## Indoor Inhalation:

- Residential exceedances in groundwater and soil vapor: VOCs (TCE and Vinyl Chloride)
- **Break Pathway to Receptor:** Will be addressed using institutional controls and if necessary, building control technology



# U.S. EPA Brownfields Cleanup Grant

- The City applied for a \$500,000 cleanup grant in 2018 (unsuccessful) and 2019 (successful).
- As part of both applications, public meetings were held to provide information on the project.



Photo: November 20, 2019 public meeting



Photo: January 22, 2019 public meeting

# U.S. EPA Brownfields Cleanup Grant

- **Project Scope:** Implement a remediation technology to reduce TCE concentrations in hot spot area
- **Project Goal:** Advance the future redevelopment of the site as a public access park to the Bloomingdale Trail
- **Future Cleanup Actions:** Install engineered barriers and institutional controls to address remaining contamination

*The cleanup activities to be performed under this grant are critical steps in preparing the Site for redevelopment.*



# Analysis of Brownfield Cleanup Alternatives (ABCA)

Alternative	Effectiveness	Implementability	Cost
<b>#1 No Action</b>	<b>Not Effective</b> Would not address TCE hot spot	<b>Simple/effortless</b> No actions are required.	~\$0
<b>#2 Excavation &amp; Disposal</b>	<b>Very Effective</b> TCE hot spot area would be removed	<b>Moderate</b> Deep excavation may require dewatering and use of excavation support system	~\$1,157,000
<b>#3 In Situ Chemical Oxidation Treatment (ISCO) via Soil Mixing</b>	<b>Very Effective</b> ISCO is a proven technology to reduce TCE concentrations. Soil mixing is the preferable delivery method for the Site's low-permeability soil.	<b>Moderate</b> Soil mixing will require use of an excavation support system and may (but is not likely to) require dewatering	~\$720,000

The recommended cleanup alternative of soil exceeding TCE  $C_{sat}$  Limit is Alternative #3: ISCO via soil mixing

# ABCA Document October 2021 Updates

- **Recent Investigations** – May 2021 geotechnical investigation and the September 2021 source delineation were added
- **SRP Enrollment**- Site enrollment and submittal of interim Comprehensive Site Investigation (CSIR), Remedial Objectives Report (ROR) and Remedial Action Plan (RAP)
- **Site-specific cleanup standards including the following:**
  - Site Specific  $C_{sat} = 700$  mg/Kg (clayey sand) and 1,000 mg/Kg (silty clay)
  - TACO Tier 1 and Tier 2 Soil Remediation Objectives (SROs)
- **Remediation Measures:** Consideration of safety measures and monitoring of odor/vapor and earth retention added



# Grant Scope and Budget Details

Task	Description	Total	Grant Funds	City Funds
<b>1. Grant management</b>	Administer the grant; procurement and management of the environmental consultant and cleanup contractor; attend EPA conference	\$2,166	\$2,166	\$0
<b>2. TCE Cleanup</b> (Professional Services)	Enroll site in SRP, prepare reports and develop specs; conduct field oversight and air monitoring	\$87,000	\$86,167	\$833
<b>3. TCE Cleanup</b> (Construction)	Excavate overburden, install excavation support, conduct In-Situ Chemical mixing, and restore site	\$626,000	\$407,167	\$218,833
<b>4. Community Engagement</b> (Professional Services)	Engage and inform project partners and the community via website updates, e-blasts, mailings and public meetings	\$4,834	\$4,500	\$334
<b>Total</b>		<b>\$720,000</b>	<b>\$500,000</b>	<b>\$220,000*</b>

\*The Open Space Impact Fee Fund (OSIFF) is the source of City Funds.

# Grant Project Timeline

## Year 1 (Oct 2020 to Sept 2021) – completed activities

- Enroll the Site in the Illinois Environmental Protection Agency's Site Remediation Program
- Prepare Comprehensive Site Investigation Report/Remedial Objectives Report/Remedial Action Plan (CSIR/ROR/RAP) for IEPA review

## Year 2 (Oct 2021 to Sept 2022) – in progress activities

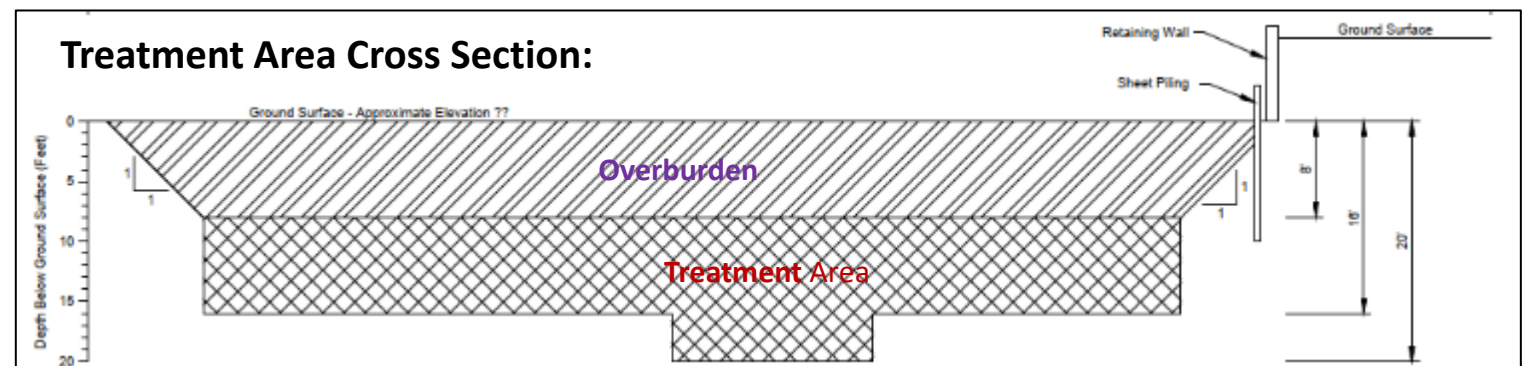
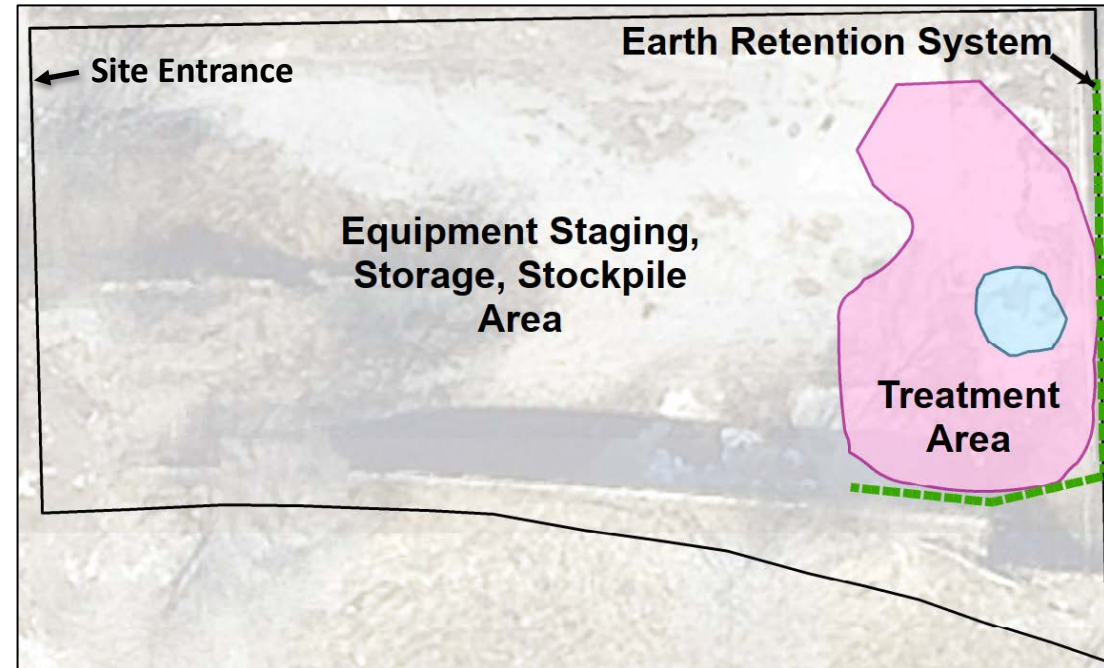
- Prepare remediation construction specifications and plans
- Issue bid for remediation contractor

## Year 3 (Oct 2022 to Sept 2023) – future activities

- Select remediation contractor
- Conduct remediation
- Prepare completion report and submit to IEPA with revised CSIR/ROR/RAP

# Proposed TCE Remediation Plan

1. Install earth retention system (e.g. sheeting, shoring soldier pile and lagging) along east and south edges of treatment area
2. Excavate top 6-8 ft of overburden material and temporarily stockpile onsite
3. Conduct soil mixing and collect samples to confirm remediation is effective
4. Backfill with stockpiled overburden material





# Air Monitoring During TCE Remediation

- Particulate matter (PM-10) and total volatile organic compounds (VOCs\*) monitored during work at the edge of the excavation and along the perimeter of the site.
- If Action Levels are exceeded or visible dust is observed, work will stop to determine the source or cause of the exceedance and implement additional dust suppression measures accordingly.
- Perimeter PM-10 Action Levels are based on National Ambient Air Quality Standards
- A site-specific action level for VOCs will be based on EPA and Occupational Health and Safety Administration guidance.
- Air monitoring equipment alarms notify oversight staff of Action Level exceedances.



Air monitoring station

\*TCE is a type of VOC

# Dust and Vapor Protection



Photo: ISCO Soil Mixing



Photo: Vapor Suppression

- Dust control measures will be reviewed and approved by the City prior to starting work
- Dust and Vapor Controls may include:
  - Water misting
  - Vapor suppressant
  - Wind screen on perimeter fencing
  - Tarping/covering of stockpiles and trucks
  - Dust-generating activities (concrete/ asphalt removal, soil excavation, blending and loading) will cease during periods of adverse weather.

# Other Potential Impacts

## Truck Traffic

- Because the contaminated material is being treated in-situ (“In place”), there will not be frequent truck traffic coming in and out of the site.

## Noise

- Although certain activities may begin earlier, every effort will be made to conduct significant noise-generating activities weekdays between 8 am to 8 pm.

## Vibration

- Depending on the selected method, vibration may occur during installation of earth retention system and will be monitored.

## Access Control

- Public access to work zone will be restricted using a perimeter fence to prevent pedestrians from getting too close to the work zone.

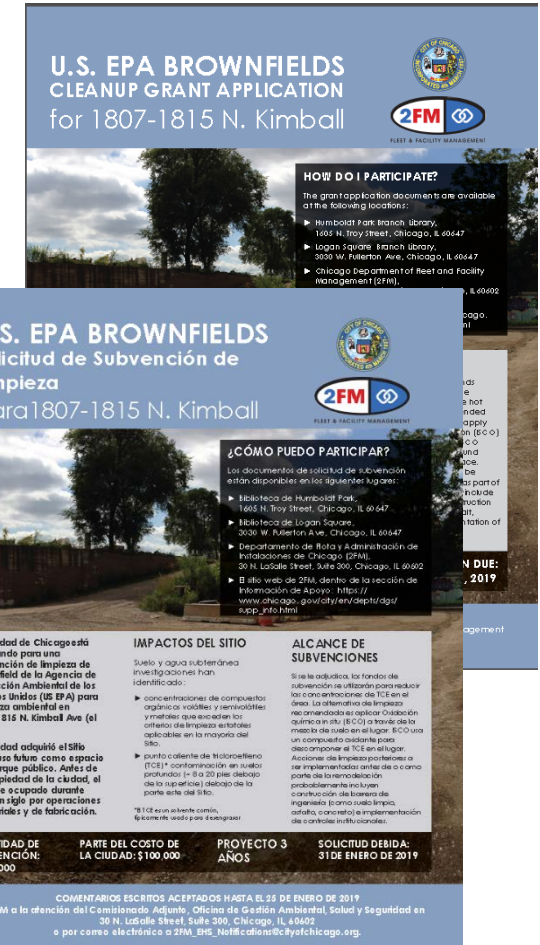
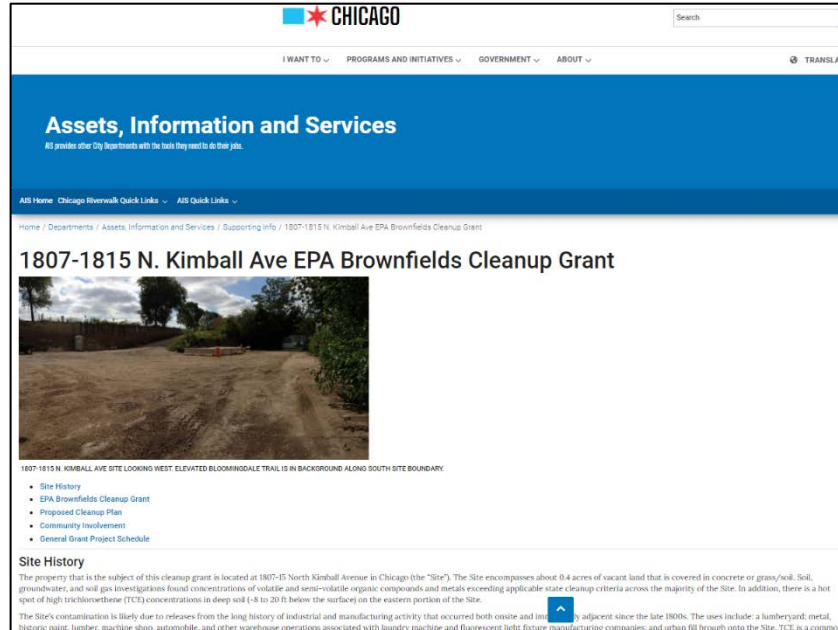
# Community Outreach

## Previous Outreach

- Public meetings (January 2019 and 2019) with FOTBT
- Cleanup Grant Fact Sheet
- Project website ([www.cityofchicago.org/Kimball](http://www.cityofchicago.org/Kimball))
- E-blasts
- Community Involvement Plan

## Future and Ongoing Outreach

- Project website updates
- E-blasts
- Direct mailing prior to the start of construction
- Attend project partner meetings





# How to Comment

- The project documents, including the updated ABCA, are available at the following locations:
  - Chicago Public Library’s Humboldt Park Branch (1605 N. Troy Street, Chicago, IL 60647)
  - City of Chicago Department of Assets, Information and Services (AIS), 2 N. LaSalle Street, Suite 200, Chicago, IL 60602
  - Project website: [www.cityofchicago.org/kimball](http://www.cityofchicago.org/kimball)
- Written comments on the ABCA accepted through November 17, 2021 submitted to AIS:
  - Attention of the Deputy Commissioner, Bureau of Environmental, Health & Safety Management at 2 N. LaSalle Street, Suite 200, Chicago, IL, 60602 or to [2FM EHS Notifications@cityofchicago.org](mailto:2FM_EHS_Notifications@cityofchicago.org).





# Questions



# THANK YOU FOR ATTENDING

Please check our website for continued updates on the project.

[www.chicago.gov/kimball/](http://www.chicago.gov/kimball/)

Please email any comments to:

Department of Assets, Information and Services: [AIS\\_EHS\\_Notifications@cityofchicago.org](mailto:AIS_EHS_Notifications@cityofchicago.org)

