City of Chicago
U.S. EPA Brownfields Cleanup Grant Application
1807-1815 N. Kimball Avenue

November 20, 2019

Simons Fieldhouse

FLEET & FACILITY MANAGEMENT

Agenda

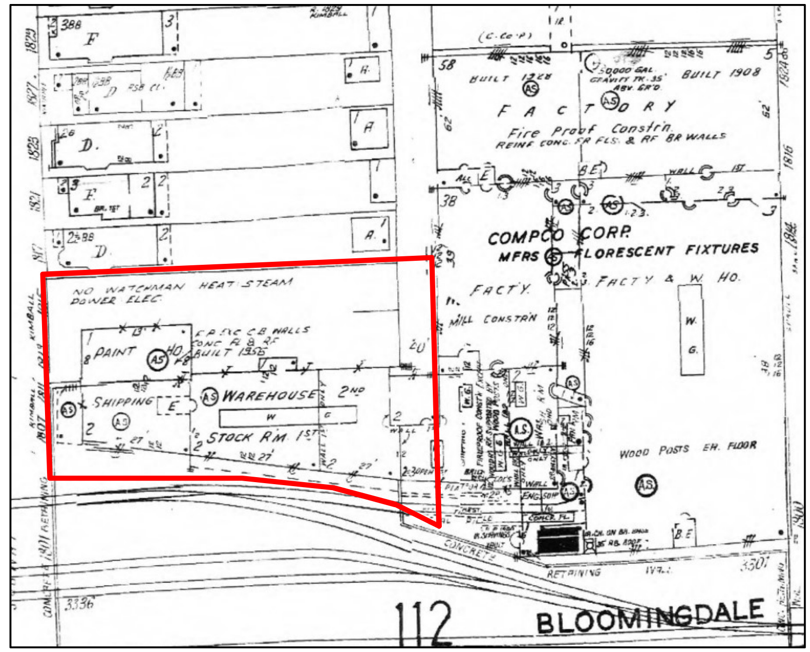
- Introductions
- Site Background
- Environmental Site Assessment Results
- U.S. EPA Cleanup Grant Application
  - 2019 Application Feedback
  - 2020 Application Updates
- Next Steps

Site Background

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

Phase I Environment Site Assessment (ESA)

1975 Sanborn Map of Site



- A Phase I ESA was performed to identify historical uses and recognized environmental conditions (RECs).
- Several RECs were identified associated with previous uses as a lumberyard and manufacturers of laundry machines and fluorescent fixtures, including painting, warehousing, and machine shop operations.

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Summary of Subsurface Investigations

Year	Purpose	Scope of Work
2010	Initial Phase II Environmental Site Assessment, based on Phase I RECs	• Soil sampling to depths of 6 to 24 feet • Groundwater sampling at three locations
2012	U.S. EPA Comprehensive Site Investigation (CSIR)	• Additional soil and groundwater sampling to 20 feet • Confirmation of volatile organic compound (VOCs) impacts (trichloroethylene or TCE)
2013	Determine vertical extent of VOC contamination and evaluate inhalation impacts	• Additional soil sampling to 30 feet • Additional groundwater sampling • Initial soil gas sampling
2018	Define extent of TCE hot spot area exceedances and soil vapor impacts, inform soil remediation	• Soil sampling for hot spot delineation • Additional groundwater and soil gas sampling • Collection of sample for remediation bench test

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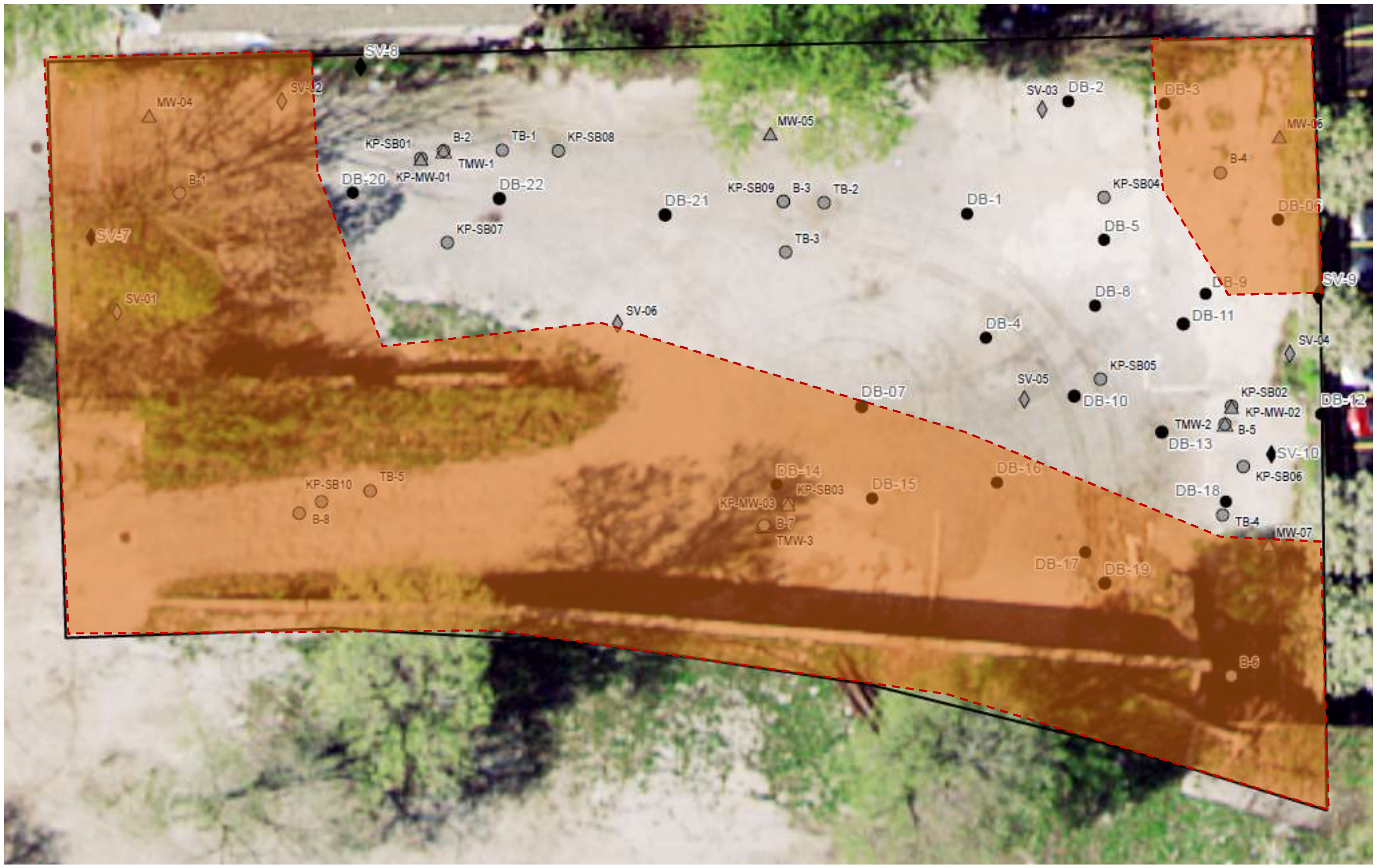
Site Contamination - SVOCs



SVOCs exceeding Illinois Tier 1 site remediation objectives for soil ingestion and/or soil inhalation exposure pathways

- Lateral extent shown in **orange**
- Depths range from 0-14 feet below the ground surface

Figure 2 – Approximate Lateral Extent of Soil Impacts - Semi-Volatile Organic Compounds (SVOCs)

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Site Contamination - Inorganics

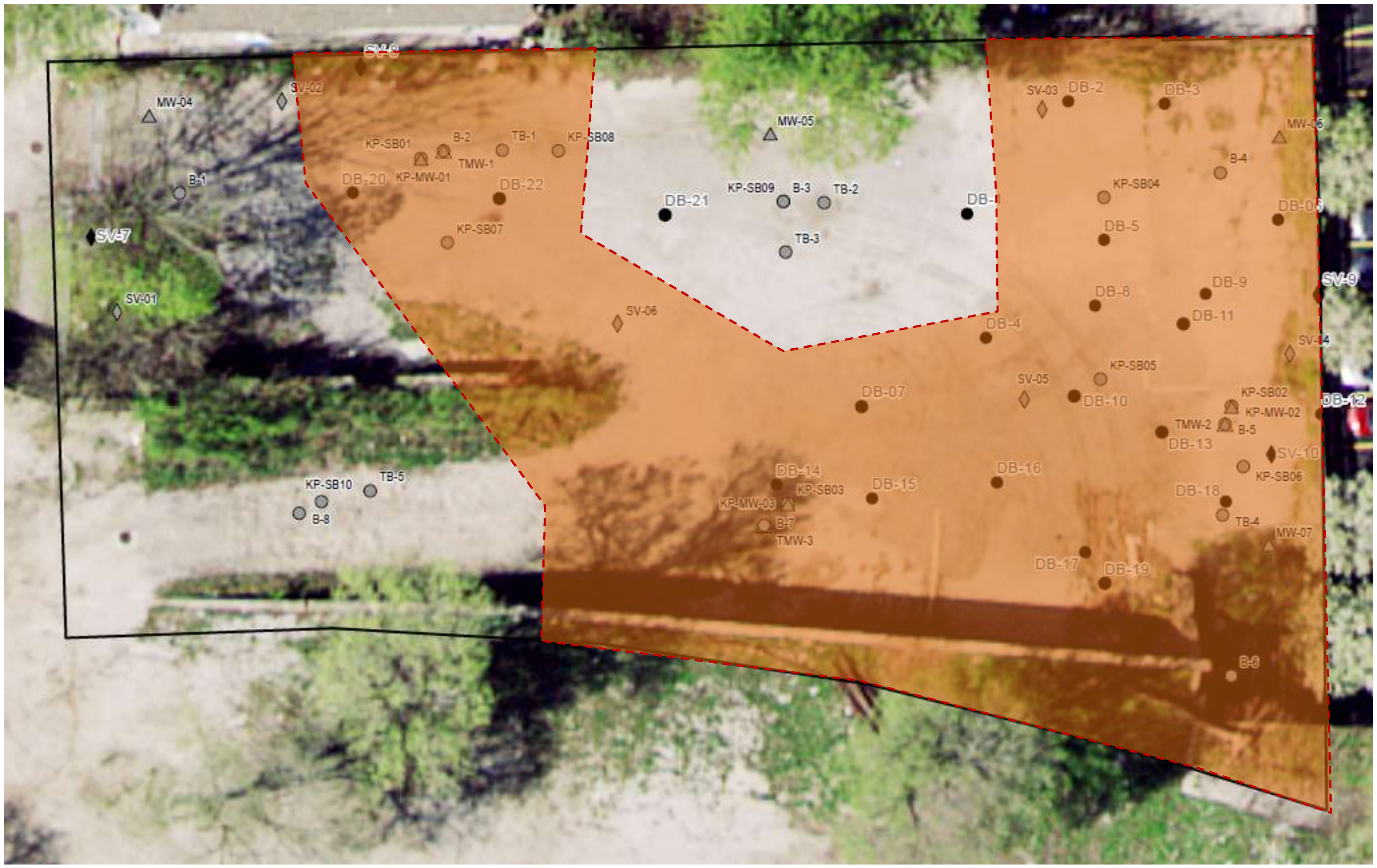

Figure 3 – Approximate Extent of Lateral Soil Impacts - Inorganics

Inorganics exceeding Illinois Tier 1 site remediation objectives for soil ingestion and/or soil inhalation exposure pathways

- Lateral extent shown in **orange**
- Depths range from 0 to 6 feet below the ground surface

Site Contamination - VOCs

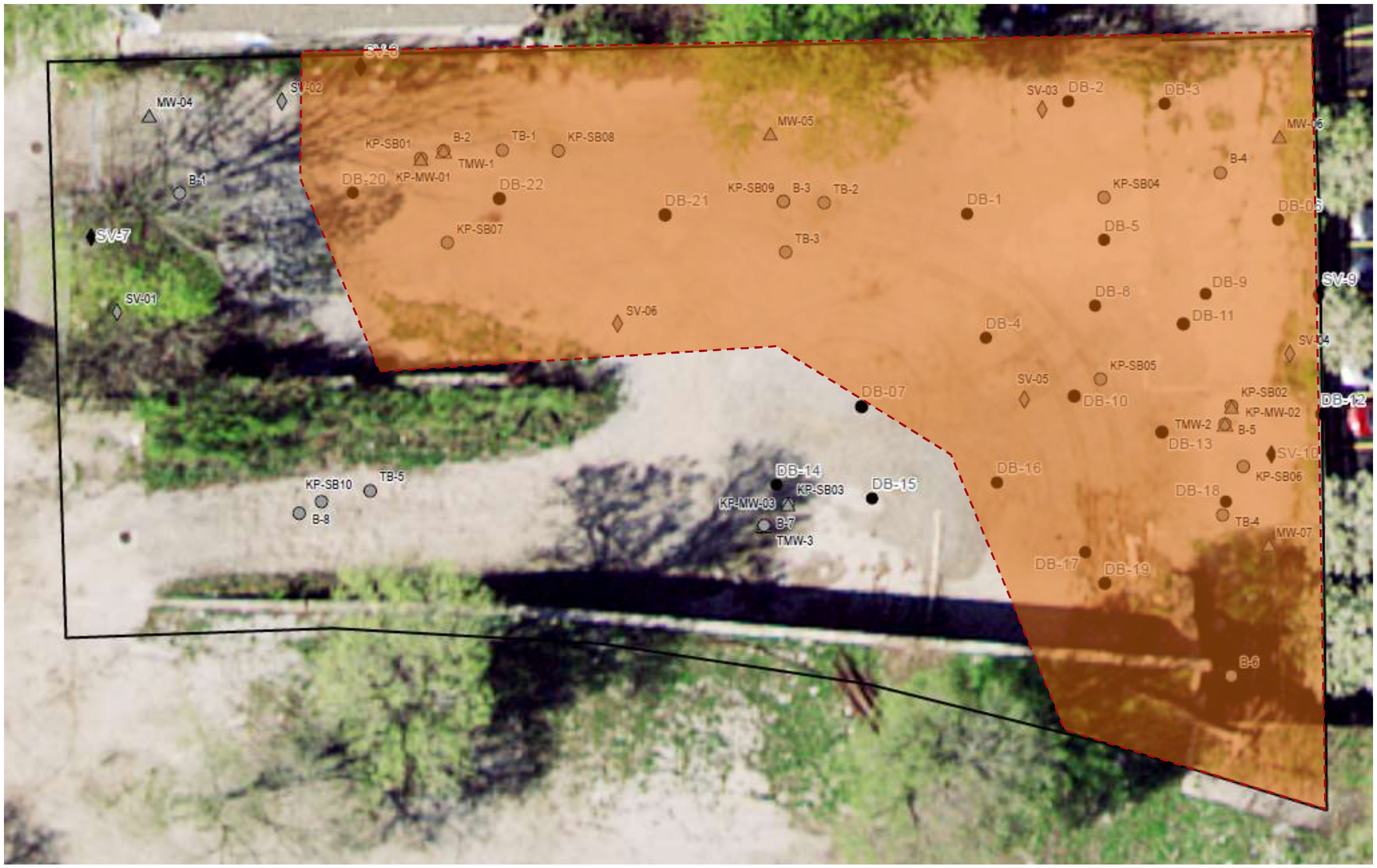

Figure 1 – Approximate Lateral Extent of Soil Impacts - VOCs

VOCs exceeding Illinois Tier 1 site remediation objectives for soil ingestion and/or soil inhalation exposure pathways

- Lateral extent shown in **orange**
- Depths range from 3 to 20 feet below the ground surface

Site Contamination – TCE Source Area (or “hot spot”)

High concentrations of TCE in deep soils along eastern portion require active treatment or removal and are the focus of the grant

- **8-16 ft bgs (red)**
- **8-20 ft bgs (blue)**

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Site Contamination – Groundwater and Soil Vapor

Groundwater

- Exceedences of Class II groundwater objectives shown in **red**

Soil Vapor

- Exceedences of Soil Vapor Tier 1 indoor and outdoor ROs shown in **red**

- Soil Vapor Point highlighted in Blue indicate results are below applicable ROs
- Soil Vapor Points highlighted in Red indicate results are above applicable ROs
- Monitoring Wells highlighted in Blue indicate results are below applicable ROs
- Monitoring Wells highlighted in Red indicate results are above applicable ROs

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U.S. EPA Cleanup Grant Application FY2020

- Grant Amount: $500,000
- City's Cost Share: $100,000
- City's Leveraged Funding: $120,000 (in-hand)
- Awards Announcement: Spring 2020
- Project Period: 3 Years
- Application Due: December 3, 2019

Last year, EPA received 89 cleanup grant applications and awarded grants to 33 communities (two from Illinois).

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U.S. EPA Cleanup Grant Application FY2019 Feedback

- Overall
  - Strong application, no major deficiencies
  - Confirmed site meets all threshold criteria for eligibility
- Project Description
  - Provide history of manufacturing in target area
- Leveraging Resources
  - Describe status of leveraged funds (i.e. in hand/proposed, eligible)

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U.S. EPA Cleanup Grant Application FY2019 Feedback

- Cost Estimate
  - Clarify grant vs leveraged fund scope
  - Provide greater breakdown of costs
- Community Need/Engagement
  - Add more statistics to support community's need for funding
  - Provide more details on public meeting frequency

Brownfield Grant Project

Scope of Work and Goal

- **Proposed Cleanup under Brownfield Cleanup Grant:** Reduction of TCE concentrations in hot spot area

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

- **Future Cleanup Actions:** Installation of engineered barriers and institutional controls to address contaminated soil and groundwater exposure pathways

- **Project's Goal:** Advance the future redevelopment of the site as a public access park to the Bloomingdale Trail

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Analysis of Brownfield Cleanup Alternatives

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

The recommended cleanup alternative of Soil exceeding TCE C_{sat} Limit is Alternative #3 ISCO via Soil Mixing

Brownfield Grant: Project Tasks

- **Grant Management (City staff):** Administering the brownfield grant, procurement and management of the environmental consultant and cleanup contractor, and coordination of environmental aspects of the future site redevelopment design.
- **TCE Environmental Cleanup (professional services)**: Completion of applicable regulatory reporting, remediation design, and oversight.
- **TCE Environmental Cleanup (construction contractor)**: Completion of the recommended remedial actions which are expected to include In-Situ Chemical Oxidation applied by soil mixing to reduce TCE to below the saturation limit in the eastern portion of the Site.
- **Community Engagement (City staff and professional services)**: Develop and inform public stakeholder groups about the cleanup and how it will impact redevelopment options, and evolve perceptions about brownfields and vacant space opportunities in the Logan Square and Humboldt Park neighborhoods and the City of Chicago at large.

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Brownfield Grant: Project Budget

Budget Categories		Project Tasks ($)				
		Task 1: Grant Management	Task 2: TCE Cleanup (Prof Services)	Task 3: TCE Cleanup (Construction)	Task 4: Community Outreach (Prof Services)	Total
Direct Costs	Personnel	$ -	$ -	$ -	$ -	$ -
	Fringe Benefits	$ -	$ -	$ -	$ -	$ -
	Travel	$ -	$ -	$ -	$ -	$ -
	Equipment	$ -	$ -	$ -	$ -	$ -
	Supplies	$ -	$ -	$ -	$ -	$ -
	Contractual	$ -	$ 87,000	$ 508,000	$ 5,000	$ -
	Other (include sub)	$ -	$ -	$ -	$ -	$ -
Total Direct Costs*		$ -	$ 87,000	$ 508,000	$ 5,000	$ 600,000
Total Indirect Costs		$ -	$ -	$ -	$ -	$ -
Total Federal Funding		$ -	$ 87,000	$ 408,000	$ 5,000	$ 500,000
Cost share (20% of federal funds)		$ -	$ -	$ 100,000	$ -	$ 100,000
Total Budget (Total Direct + Indirect + Cost Share)		$ -	$ 87,000	$ 508,000	$ 5,000	$ 600,000

*The City is providing an additional $120,000 outside of the required match for a total budget of $720,000 to treat the TCE hot spot.

Total Project Budget Details

Task	Lead	Cost	Description
1. Grant management	2FM	$0	• 2FM in-house staff will manage grant
2. TCE Cleanup (Professional Services)	Consultant	$87,000	• $13,000 - IEPA report preparation • $44,000 - HASP, QAPP and design/specs • $30,000 - Field oversight and Air Monitoring
3. TCE Cleanup (Construction)	Contractor	$628,000	• $71,000 – Decon facility install/O&M • $557,000- In-Situ Chemical Mixing - Treatment Area Preparation - Excavation Support (Sheet Piling) - ISCO Treatment and Mixing
4. Community Engagement	2FM/ Consultant	$5,000	• $5,000 - 45 hours at average rate of $111/hr
	TOTAL COST	$720,000	

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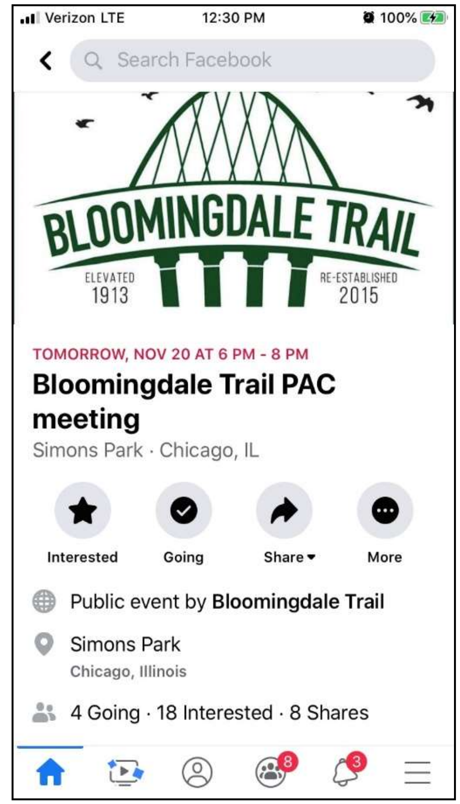
Community Engagement

- Frequency
  - At least quarterly; and,
  - Prior to finalizing remediation design plans
  - Before cleanup begins
  - After the cleanup has completed
- Methods
  - Community meetings
  - 2FM's and project partner's websites, e-mail and social media



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How to Comment

- The grant application documents are available at the following locations:
  - Chicago Public Library's Humboldt Park (1605 N. Troy Street, Chicago, IL 60647) & Logan Square (3030 W. Fullerton Ave, Chicago, IL 60647) Branches
  - City of Chicago Department of Fleet and Facility Management (2FM), 30 N. LaSalle Street, Suite 300, Chicago, IL 60602
  - 2FM's website, within the Supporting Information section, located at the following address: https://www.chicago.gov/city/en/depts/dgs/supp_info.html
- Written comments accepted through November 25, 2019 to 2FM:
  - Attention of the Deputy Commissioner, Bureau of Environmental, Health & Safety Management at 30 N. LaSalle Street, Suite 300, Chicago, IL, 60602 or to 2FM_EHS_Notifications@cityofchicago.org.

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Next Steps

Review and Address Comments on Draft Application

- Draft Application available at Logan Square and Humboldt Park Libraries, 2FM's office and 2FM's website
- Written comments are due by **November 25, 2019**

Submit Application to U.S. EPA

- Due to U.S. EPA by **December 3, 2019**

Wait for Notification of Awards

- The public will be notified if the City is awarded the grant
- If awarded, the work would likely start in 4Q2020

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Questions