

Metal Air Pollution Partnership Solutions (MAPPS)

The Goal

The University of Texas Health Science Center at Houston School of Public Health (UTHealth SPH) and their partners care about the health and well-being of people living in our local community. Therefore, the goal of the MAPPS project is to work together with the metal recycling industry and neighborhood residents to study and improve the air quality and health of Houston's communities that border metal recycling facilities. To achieve the goal of the MAPPS project, UTHealth SPH and its partners received funding from the National Institute of Environmental Health Sciences (NIEHS) to support this innovative five-year research project.

The Neighborhoods

MAPPS activities will take place in Houston neighborhoods where metal recycling facilities operate. The selected neighborhoods include: 1) South Park; 2) Fifth Ward; and 3) Magnolia Park.

Phase 1: Science

- Gather information from residents about environmental health concerns in their neighborhoods
- Conduct air monitoring in selected areas
- Describe health risks (big or small) using air monitoring data



Photos:
Mobile Ambient Air Monitoring Laboratory—MAAML (A and B) and a tripod-mounted inhalable particle air sampler (C)

Phase 2: Action

Develop and apply a Public Health Action Plan to:

- Recommend ways the metal recycling industry can reduce metal air emissions, if necessary
- Educate residents, metal recyclers, and policy makers about environmental health



Phase 3: Evaluation

- Conduct a second round of air monitoring in the selected neighborhoods in Houston
- Describe health risks (big or small) using air monitoring data
- Evaluate whether residents and metal recyclers have increased their knowledge of environmental health concerns after implementing the Public Health Action Plan

The Partners

- Air Alliance Houston
- Houston Health Department, Bureau of Pollution Control and Prevention
- Metal Recycling Industry Representatives
- Neighborhood Residents
- Rice University
- University of Texas Health Science Center at Houston School of Public Health (UTHealth SPH)

To Get Involved, Contact

- Air Alliance Houston
Juan Flores, Community Organizer
713-528-3779
Juan@airalliancehouston.org
www.airalliancehouston.org
- UTHealth SPH
713-500-9466
MAPPS@uth.tmc.edu
www.sph.uth.edu/research/centers/swcoeh/
Select: *Research Tab*

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The Project

Metal recycling facilities accept and process scrap metals. The benefits of metal recycling over the use of raw materials include energy savings, the conservation of resources, and job creation. Yet, some recycling plants in Houston are in close proximity to neighborhoods and concerns have been raised by residents about smoke and dust.

MAPPS is a collaborative research-to-action project of The University of Texas Health Science Center at Houston School of Public Health (UTHealth SPH) to study and address potential health risks associated with air emissions from metal recycling facilities in Houston.

The MAPPS five-year research-to-action project will be conducted in three phases:

Research: Conduct outdoor air monitoring, determine health risks and describe residents' environmental health concerns

Action: Develop and apply a plan to address the research findings

Evaluation: Measure the success of our action plan



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