
Spearheading Environmental Justice: Stories and Data From Community



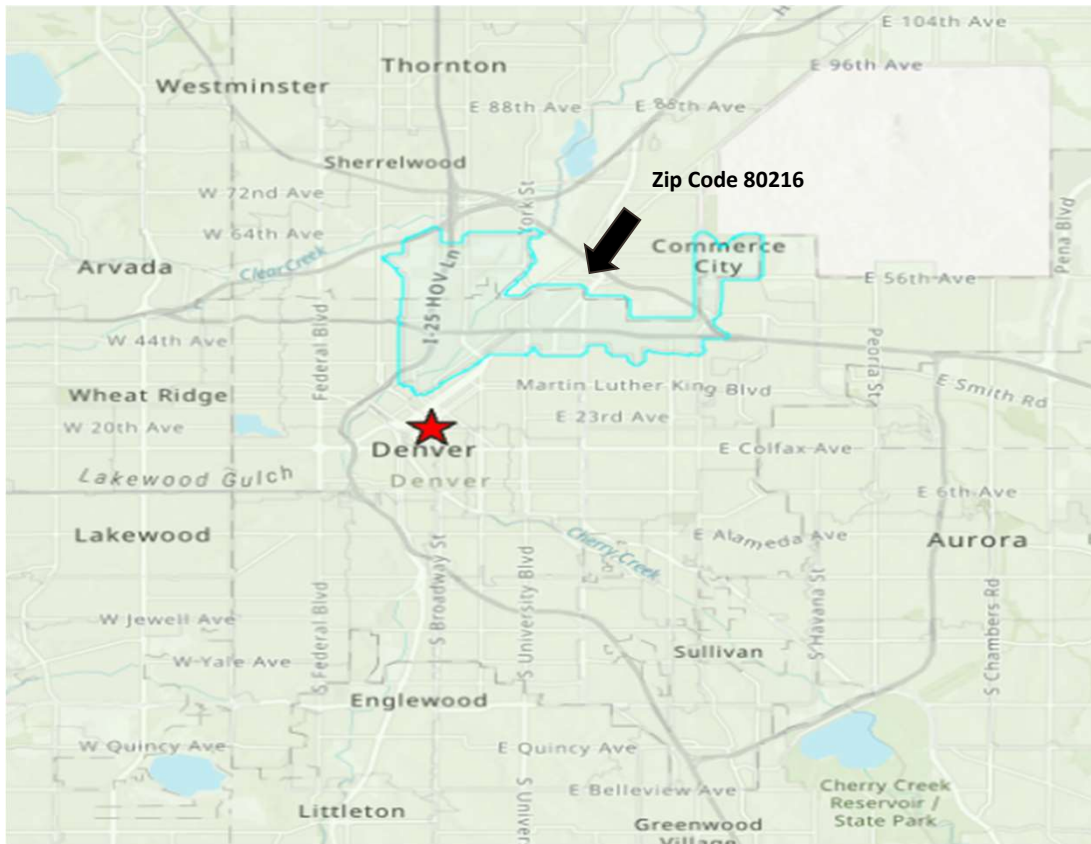
Guadalupe Solís
Director of Environmental Justice

Laura Martinez
Environmental Justice Program Manager



Mission: Cultivando is a small nonprofit led by a handful of indigenous, Latina women that work to serve the Latino community. We focus on community leadership to advance health equity through **advocacy, collaboration, and policy change**. Our work is based on our organizational values of community-led work, social justice, and collaborative leadership.

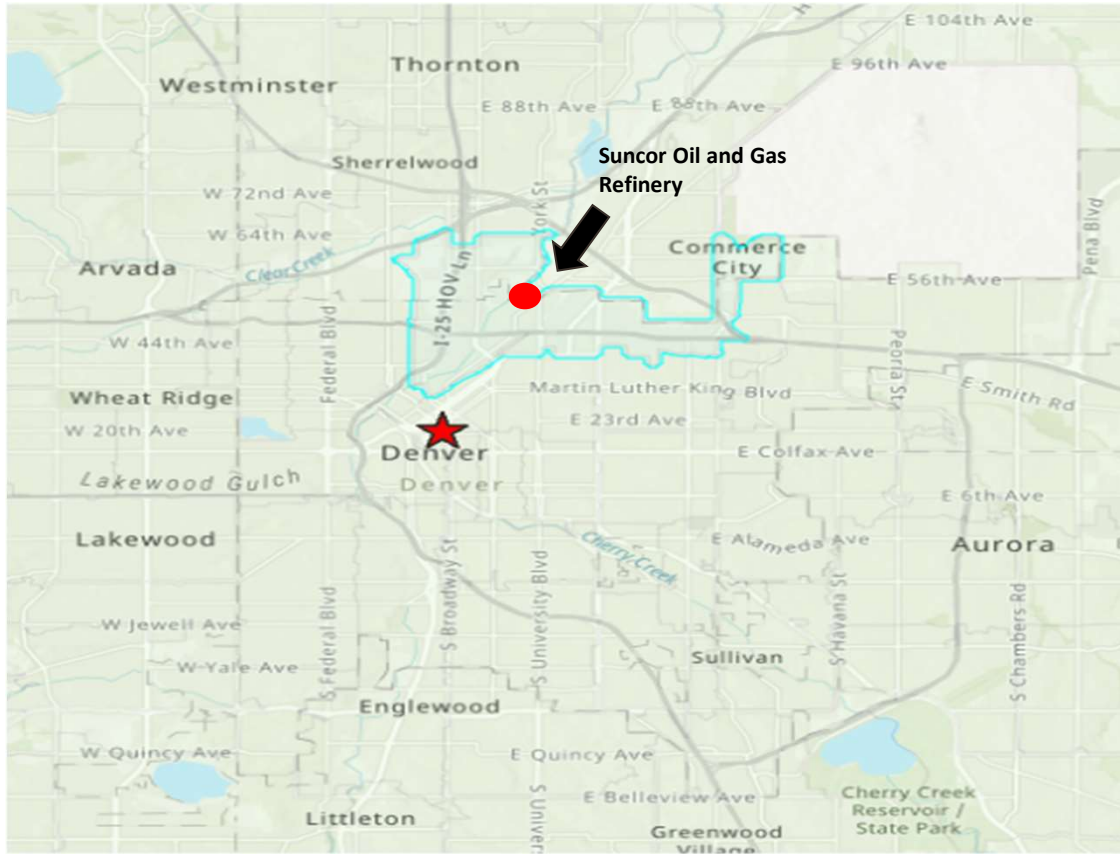
We believe the best community work is led by those impacted, and that value is reflected in our staff and programs through our **promotora model**.



Source: Colorado Department of Public Health and Environment (CDPHE) Open Data

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A Latino-led group monitored the air near Suncor for more than a year. They found elevated levels of pollution and radioactive particles

 By Sam Brasch · Mar. 16, 2023, 4:15 pm

'Dangerous to human health': Organization, scientists present research regarding Suncor Refinery air pollution

Cultivando orchestrates air monitoring research related to Suncor Refinery for the past year

"What was surprising to us was not what we found, what was surprising is that it seems that these government agencies have known that this is happening for decades and had done...nothing to very little,"

Gonzalez says.

"Environmental racism is forcing our communities to endure cumulative effects of toxic exposure, which impacts multiple generations in the area where Suncor has operated for nearly a century without sufficient scrutiny or accountability," said Executive Director Olga González.

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HEALTH

Regulation falls short of protecting north Denver residents from Suncor refinery, nonprofit research finds

Cultivando, an Adams County environmental nonprofit advocating for Latino communities, released the results of their yearlong air monitoring program and called for stricter industry regulations



Joshua Perry 3:40 AM MDT on Mar 16, 2023

[Denver7](#) looked into [previous fines at the refinery](#), and learned the December 2022 Suncor fire that injured two employees resulted in 38 violations, including air emissions higher than allowed and benzene in the Sand Creek above permitted levels.

Summary of Air Monitoring Work



OGI video captured by Earthworks shows plume of pollution (invisible methane and VOCs) from major source on the Suncor refinery



Mobile air monitors located in various areas around the Denver-metro



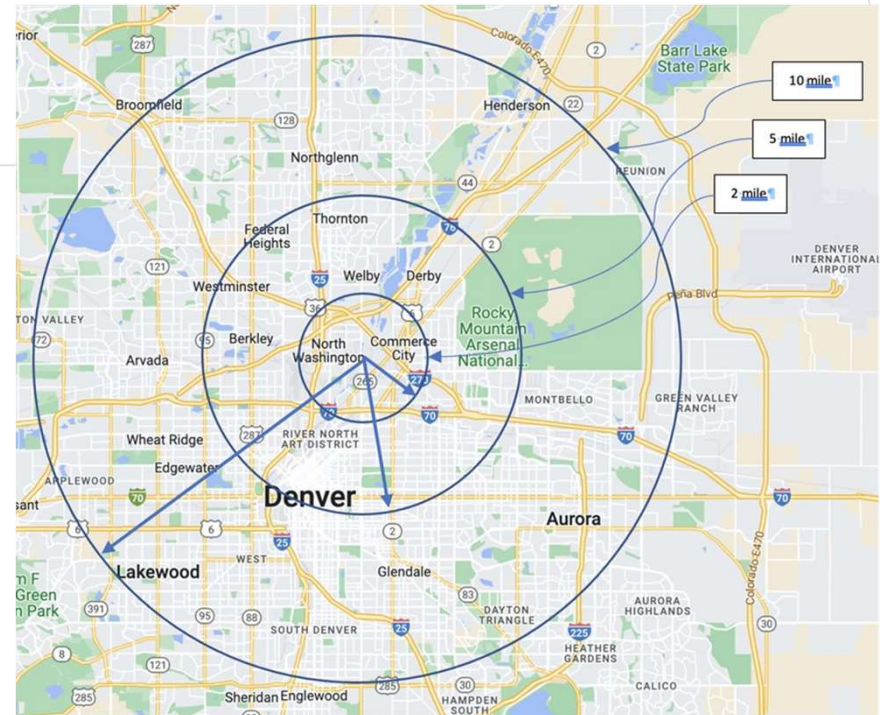
Elvia Chavez, Promotora at Cultivando, changes radiello tubes



Summary of Air Monitoring Findings

We have found that there is great variation in pollutant concentrations over time:

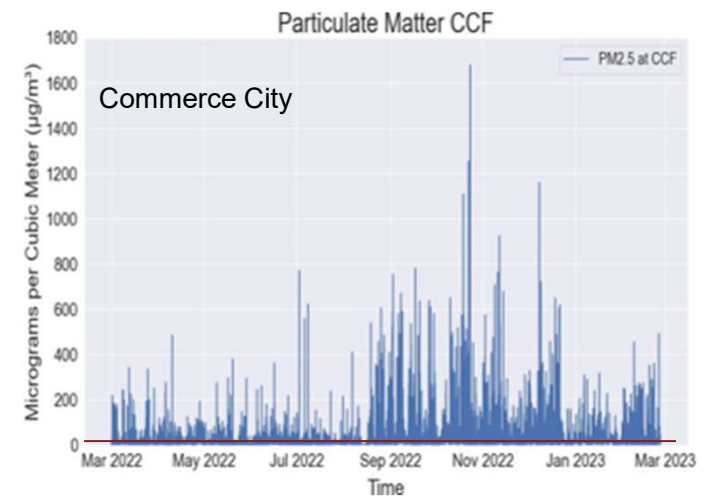
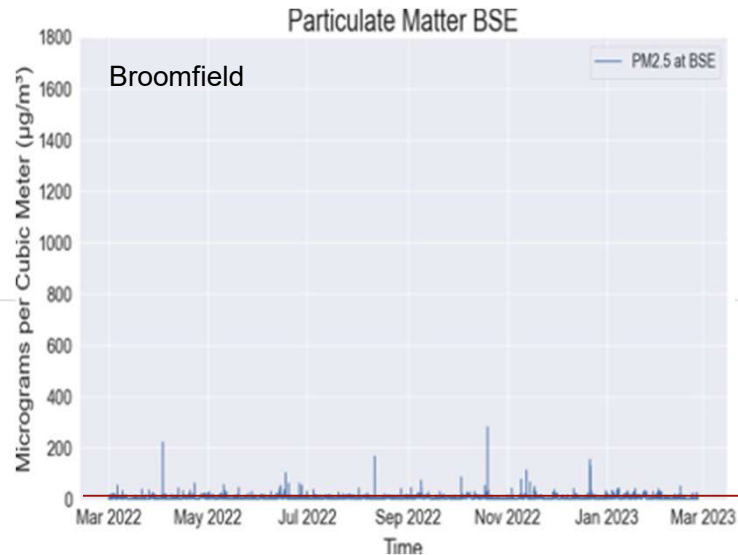
- Variations in air emissions throughout the day
- Variations between day and night, with more pollution during nighttime hours



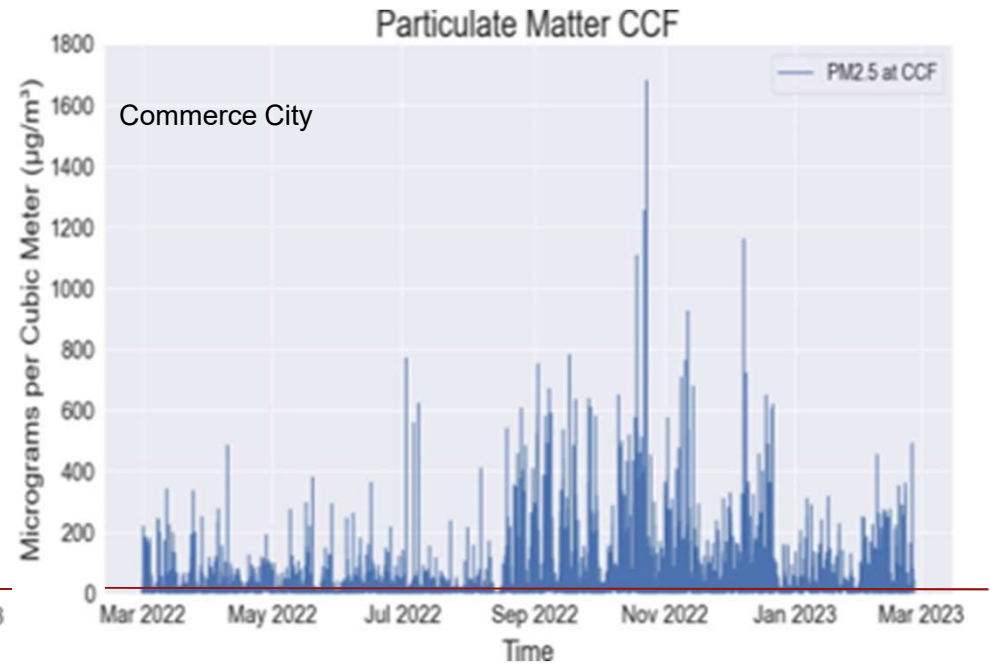
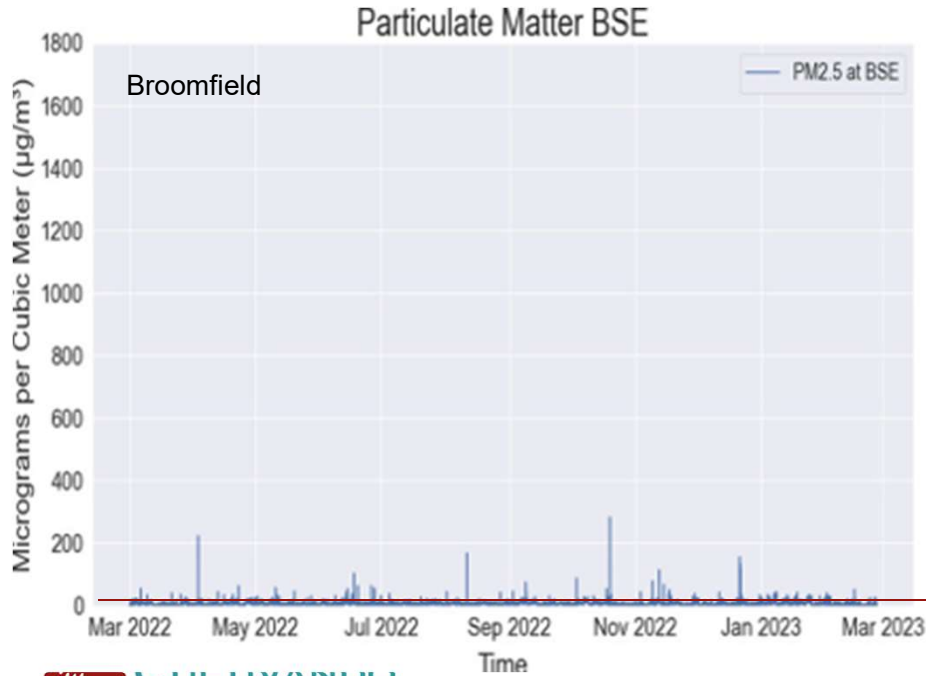
Summary of Air Monitoring Findings

We have also found that there are differences in the concentration of pollutants in the air depending on your location:

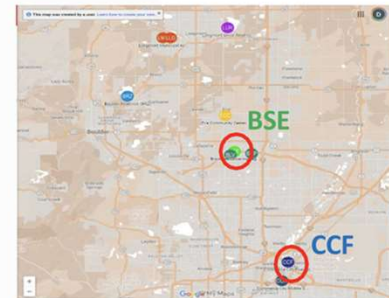
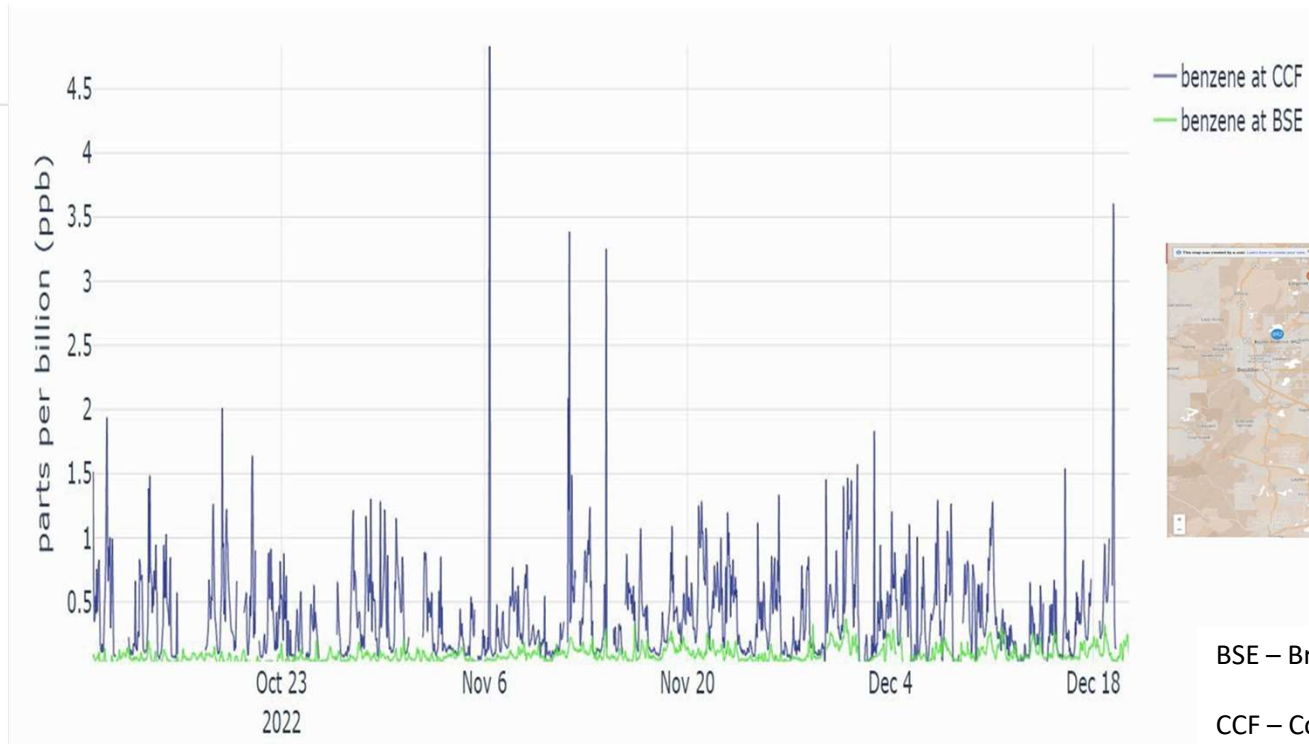
- Higher concentration of pollution near the refinery, compared > 10 miles from the refinery



Summary of Air Monitoring Findings



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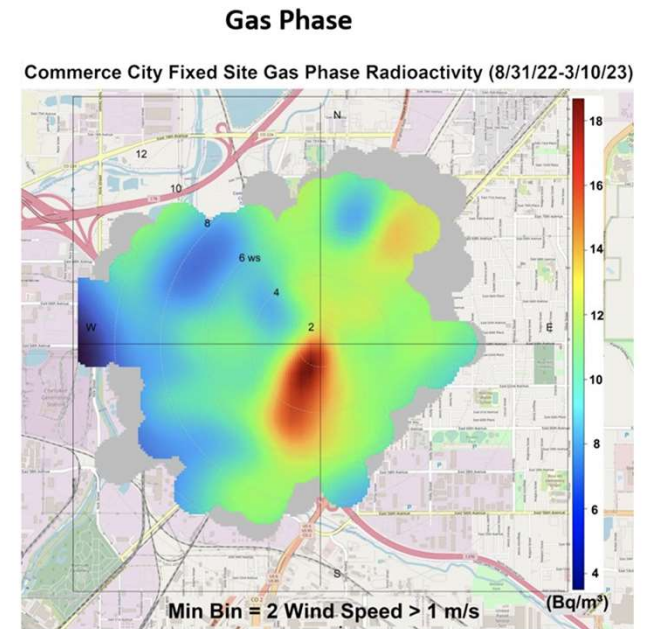
BSE – Broomfield. Soaring Eagle

CCF – Commerce City Fixed Site

Summary of Air Monitoring Findings

There are multiple pollutants present at the same time:

- Contaminants come from different sources and not just from one specific area within Suncor.
- Radioactivity detected in the air within the areas closest to the refinery.



Events Unsafe for Human Health

Contaminant	Alert level	Documented health effects	Source	# Alerts/month
Benzene	0.9 ppb	Drowsiness Dizziness Fast/irregular heartbeat Damage to the immune system	World Health Organization (WHO): no safe level Agency for Toxic Substances and Disease Registry: > = 9ppb	13
Hydrogen Sulfide	8.0 ppb	Fatigue Headaches Dizziness	Odor threshold: 10 ppb	17
Sulfur Dioxide	15.3 ppb	Irritation to the nose, throat, lungs Coughing, difficulty breathing Headaches Nausea, vomiting and dizziness Children with asthma may have more trouble breathing	WHO Air Quality Guidelines	2*

Events Unsafe for Human Health



	Threshold	Number of Exceedances past 6 Months							
		CCF	CCM	BNP	BSE	BRZ	ECC	LLG	LUR
Benzene	>0.9 ppb	316	233	3	0	1	75		5
H ₂ S	>8 ppb	3895			0				
Methane	>5000 ppb	4337	118	101		0	487	0	15
Ethane	>50 ppb	218	320	37	22	2	48		93
Propane	>50 ppb	174	7	3	1	0	2		24
PM2.5	>35 µg/m ³	14820			389		954		378
PM10	>54 µg/m ³	62685			2225		9251		3484
NO _x	>53 ppb	65203	33199		3315	113			10375

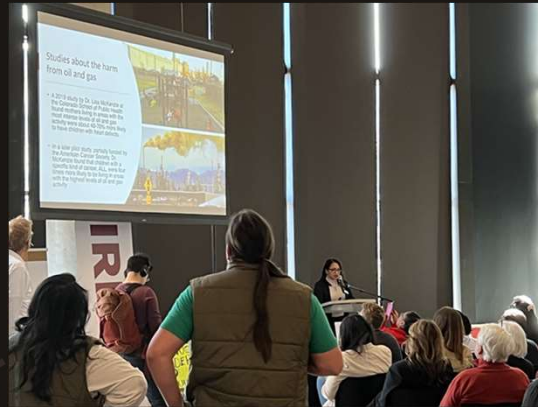
BRZ – Boulder Reservoir
LLG – Longmont Lykins Gulch
LUR – Longmont Union Reservoir
ECC - Erie Community Center
BSE – Broomfield Soaring Eagle
BNP – Broomfield North Pecos
CCF – Commerce City Fixed Site
CCM – Commerce City Mobile Site

Our Stories



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Next Steps



Dissemination of
Final Report
Findings

Final Air Monitoring Report available by the end
of this year

Social Impacts and Health Impacts Final Report
available by next year



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