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# In This





#### **Defining Air Pollution & Causes**

| Impacts of Air | Pollution on Us |
|----------------|-----------------|
|----------------|-----------------|

**A Choking Community** 

**Earth is Hurting** 

**From Pollution to People Power** 

4

**Helping in Community** 

**Improve Your Air** 



Glossary

**Citations & Credits** 

11

10

8

12

# EXPLAINING AIR POLLUTION

What is it?

Unnatural chemical, biological or physical agents that contaminate the natural environment (outdoor or indoor), –World Health Organization

#### Causes

Motor vehicle traffic, construction, industrial facilities, and forest fires are

#### some of the primary causes of air pollution

#### <u>Quiz</u> What sort of air pollutants can occur in your space? A.) sulfur dioxide B.) carbon monoxide C.) nitrogen dioxide D.) All of the Above

D.) All of the above

# Air Pollution

**True or False:** Longer exposure to poor air quality builds a tolerance

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#### <u>Short-term Effects:</u> Coughing Wheezing/difficulty breathing Irritation in eyes, nose, & throat Headache Dizziness Fatigue *Center for Science Education*

<u>Long-term effects:</u> Respiratory diseases (asthma,

Answer: False, the longer exposure to poor air quality, the more likely health risks will appear

emphysema) Cardiovascular damage Harm to liver, spleen, & blood Nervous system damage Cancer Birth defects Death *Center for Science Education* 

## North Denver Commerce City Globeville, Elyria, and

NG CO/

This community currently does not meet federal standards for ozone, to no fault of their own.

<u>Swansea</u>

Major highways, I-25 and I-70, were built extremely close to the ESA community, including having highway expansions built into their property

Increased studies are finding that higher exposure to air pollution is linked to general antibiotic resistance due to the inhaled toxins Proximity to industrial facilities and motor vehicle traffic contributes to the amount of air pollution in the environment

70% of the land is dedicated to commercial and industrial practices, 40% more compared to Denver



CDPHE North <Denver Commerce City Storymap

# <section-header>

What causes atmospheric pollution?A.) Fossil Fuel BurningB.) HuntingC.) Thrift ShoppingD.) Having house plants

## THE OZONE LAYER

Protective shield over the earth, that stops the sun's rays from being too hot by absorbing the ultraviolet radiation in the stratosphere. Increased air pollution poses

# a threat to this protective and essential shield.

## GREENHOUSE GASES

Gases that warm the Earth by trapping the sun's heat in the atmosphere, such as CO2, methane, or water vapor. Excess greenhouse gases lead to too many heating agents, leading to an overall warmer climate and planet.

#### A.) Fossil Fuel Burning

#### **From Pollution to People Power**

#### POLLUTION

petroleum refiner that produce<mark>s</mark> gasoline, jet fuel, diesel fuel, and asphalt



- Higher greenhouse gas emissions
  (hydrogen sulfide + carbon monoxide)
  Higher local ozone levels
- Higher particulate matter locally

#### A NEW FUTURE

The US Environmental Protection Agency & CDPHE found evidence of air pollution

To improve their relationship with North Denver, Suncor has vowed to:

Plant more trees in the ESA Area Continue air monitoring

Improve Air Quality at 3 Schools, and public library air quality

#### Windmill farm?

WHAT ELSE?

public parks?

Solar panel field?

Bug garden?

Write down what you would like to improve the air quality and health...

## Suncor and CDPHE >





#### https://www.cultivando.org/

"A healthy environment is a fundamental right for all. Our Environmental Justice program tackles environmental racism and empowers frontline communities to fight for clean air, safe water, and a justtransition to a sustainable future.

-Cultivando

# GreenLatinos

#### Somos: https:// www.greenlatinos.org/es/

"We envision a healthy and equitable society where communities of color are liberated from disproportionate environmental burdens," -

- Green Latinos



10

# WHAT DOES A SUSTAINABLE FUTURE LOOK LIKE TO YOU?

"GREEN SPACES, AND BLUE SKIES" "LESS INDIVIDUALISTIC AND MORE COLLECTIVISTIC"

"HUMAN ACTIVITIES ARE NOT TOXIC TO ANYONE OR ANYTHING"

"LESS DISTANCE BETWEEN FOOD AND TABLE"

Your Vision:

# Glossary

## **Antibiotic Resistance**

When various antibiotic medicines, which are used to fight viruses, fungi, parasites, and bacteria, become progressively ineffective in a person.

## AQI(Air Quality Index)

A tool used to measure the overall air quality of area. It considers the amount of Particle Matter (PM) Ozone, and Green House Gas Emission

## Emphysema

A chronic (lasting) lung condition that creates issues with breathing

### **Frontline communities**

Those experiencing the effects of climate change and human environmental pollution first and disproportionately, often related to systematic oppression.

## Refinery

An industrial facility where raw materials are stripped down and turned into a different working material, such as crude oil into fuel

# Citations

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Zine created by Alysia Abbas (CU Boulder COMM '25), who grew up in North Denver, with the support of the Sustainability And Storytelling Lab and CU Boulder Office for Public and Community-Engaged Scholarship.



#### SUSTAINABILITY AND STORYTELLING LAB