

# PLASTIC AND RACISM

A SIX-PART SERIES





In response to the horrific racially-motivated events and subsequent reckoning that certainly raised my consciousness in 2020, I decided to contribute to the discussion by exploring subject matter relevant to my profession.

I choose the intersection of plastic and racism. Plastic and racism might seem like an unlikely pairing. In fact, throughout its life cycle, plastic has a disproportionately negative impact on minority and low-income communities.

This booklet is a compilation of six separate social media posts from the Fall of 2020. It examines aspects of environmental justice throughout the lifecycle of plastic; from extracting the fossil fuel to disposing of the finished product.

Special thanks to Zubaydah Madyun for her help on this project.

Julia Craighill

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# **PLASTIC AND RACISM**

## **PART 1: History of Plastic**

1900

1907

Invented over 100 years ago,  
plastic takes 10x longer  
than that

(on average **1,000 years**)  
to decompose

Plastic means  
"pliable and  
easily shaped"



1950



After WWII plastic demand  
**grew by 300%**



Seen as  
inexpensive,  
safe & sanitary,  
it could be  
made into just  
about  
anything



There is an estimated  
**200 million tons of plastic**

in the Atlantic ocean now.

**2020**



**2040**

The volume of ocean plastic  
**expected to nearly triple**

in the next 20 years

# Sources

## History and future of plastic

[Sciencehistory.org/the-history-and-future-of-plastics](https://sciencehistory.org/the-history-and-future-of-plastics)

## Plastic pollution in Atlantic at least 10 times worse than thought

<https://www.theguardian.com/environment/2020/aug/18/atlantic-ocean-plastic-more-than-10-times-previous-estimates>

## Plastic waste entering oceans expected to triple in 20 years

<https://www.theguardian.com/environment/2020/jul/23/plastic-waste-entering-oceans-triple-20-years-research>





# PLASTIC and RACISM

## PART 2: Extraction

Oil and gas, the building blocks of plastic, are extracted by drilling deep underground to access and pump the resource out.



Inherently dangerous,  
this drilling is done in a variety of ways

# OFF-SHORE DRILLING



Fires and explosions release oil into the ocean and happen often, endangering workers and the environment

# OFF-SHORE DRILLING

Black fishing communities in the Gulf bayou region with a long-standing maritime heritage have their livelihood threatened by oil spills



Further, they have been left out of the clean-up opportunities offered to other fishermen

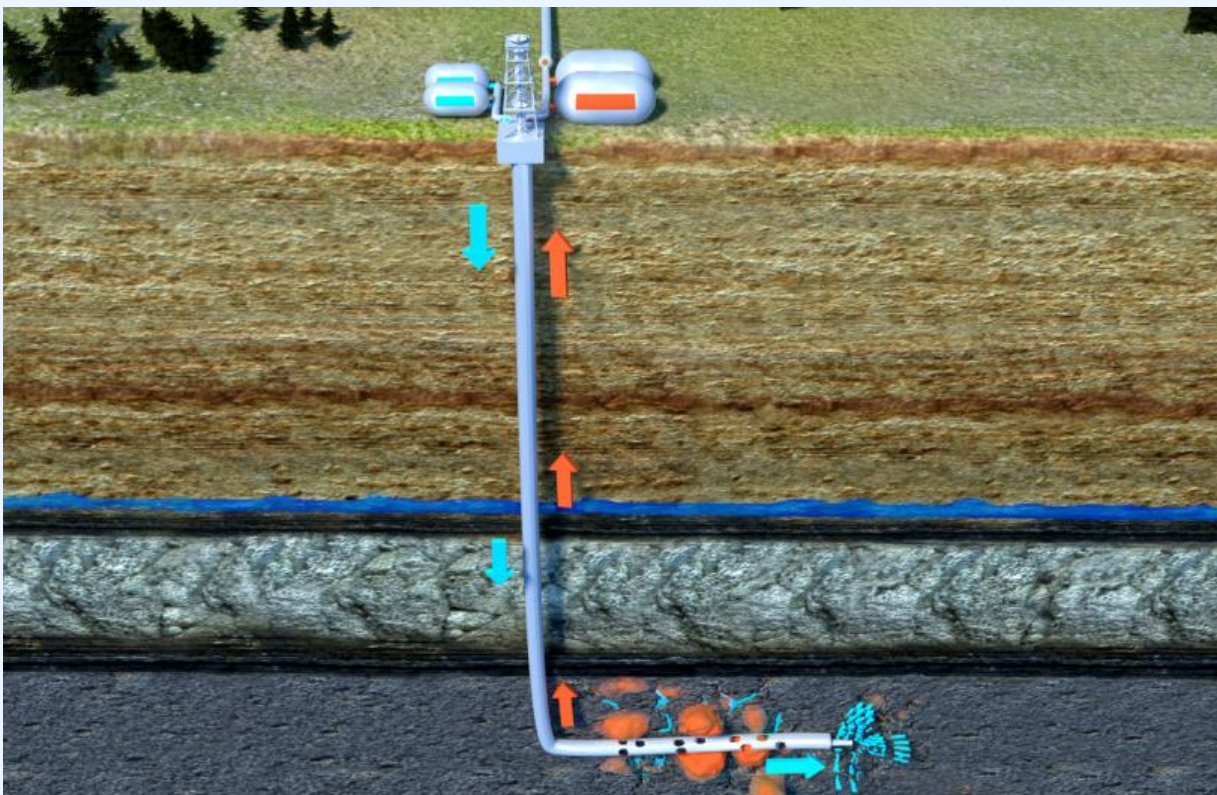
# OFF-SHORE DRILLING



And, more than half the sludge that went to landfills from the BP oil spill were located in communities of color

# FRACKING

Fracking is done by injecting chemical-laden water under extreme pressure to create fissures in shale deposits deep underground and release trapped natural gas



Water contamination occurs when the water mixture enters the water table through the fissures that were created or by a leak in the underground piping

# FRACKING

Drinking water is also polluted when leaks occur in the temporary onsite containment ponds holding the discharged waste water



Since fracking is exempted from the Clean Water Drinking Act, companies don't have to disclose the chemicals in the water

# FRACKING

Water pollution is among several other negative affects - including increased traffic, noise, and air pollution - that impact surrounding communitites.



Most fracking is done in poor communities of any racial make-up. However, communities of color usually don't own the land, so they bear the burden without at least benefitting from the lease of mineral rights.



# Sources

**Poor Communities Bear Greatest Burden from Fracking**

<https://www.scientificamerican.com/article/poor-communities-bear-greatest-burden-from-fracking/>

**A long-threatened community of black fishers fears for its future**

<https://thelensnola.org/2010/05/24/4860/>

**Why oil spills are a racial issue**

<https://www.theroot.com/why-oil-spills-are-a-racial-issue-1790883618>

**Just how dangerous are oil rigs, anyway?**

<http://content.time.com/time/nation/article/0%2C8599%2C1984296%2C00.html>



# PLASTIC AND RACISM

## PART 3: Transportation

# BY SEA

Communities near ports are all too familiar with **air pollution** from ships idling, loading, or unloading oil.

Long Beach and Los Angeles neighborhoods near and downwind of the ports consistently earn the distinction of having the worst air quality

According to the American Lung Association, some 13 million black, Latino, Asian, and American Indian residents breathe in the ports' pollution-laced air.

# BY LAND

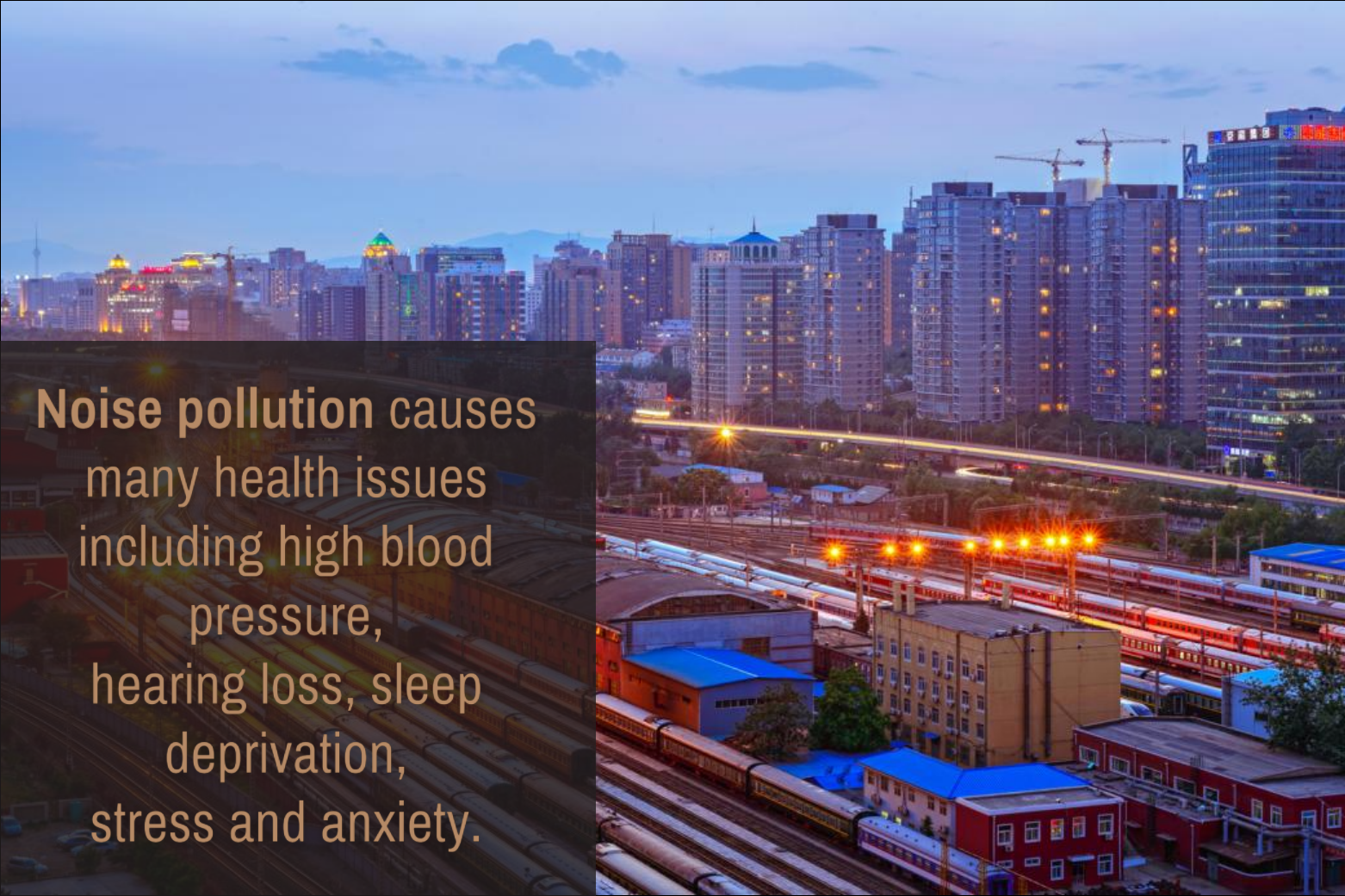


Tank railroad cars and tank trucks transport oil to refineries.

Decades of segregation and discriminatory housing policies have boxed minority communities into less desirable urban areas with freeways and railroads running through them.

**Noise pollution** is one of the resulting harmful environmental effects.

# BY LAND



**Noise pollution** causes many health issues including high blood pressure, hearing loss, sleep deprivation, stress and anxiety.

The WHO ranked traffic noise as the second-largest environmental threat to public health.

# BY PIPELINE

Pipelines are a crucial form of transportation for gasoline. A leak or rupture can have significant, even catastrophic consequences.

In the past 20 years, over 12,000 pipeline incidents have been reported in the US

The Standing Rock Sioux Tribe's unsuccessful fight to protect their sacred land and water source from the Dakota Access Pipeline is just one example in hundreds of years of Native American land desecration.

# Sources

**As oil prices crashed, tankers idled off California—spewing pollution for weeks**

<https://www.nationalgeographic.com/science/2020/06/coronavirus-oil-prices-crashed-tankers-idled-california-spewing-pollution/>

**Reported Incidents**

<https://portal.phmsa.dot.gov/analytics/>

**Pipeline Risks**

<https://www.watershedcouncil.org/pipeline-risks.html>

**Offshore drilling onshore damage**

[https://environmentamerica.org/sites/environment/files/reports/EA\\_Offshore\\_drilling\\_scrn.pdf](https://environmentamerica.org/sites/environment/files/reports/EA_Offshore_drilling_scrn.pdf)

**The noise pollution project an issue of environmental justice for underserved communities**

<https://www.worldbeatcenter.org/archives/30872>

**Urban noise pollution is worst in poor and minority communities and segregated cities**

<https://theconversation.com/urban-noise-pollution-is-worst-in-poor-and-minority-neighborhoods-and-segregated-cities-81888>

**Judge orders environmental review of controversial Dakota access pipeline**

<https://www.npr.org/2020/03/25/821643911/judge-orders-environmental-review-of-controversial-dakota-access-pipeline>



# **PLASTIC AND RACISM**

## **PART 4: Production**



# HARMFUL EMISSIONS

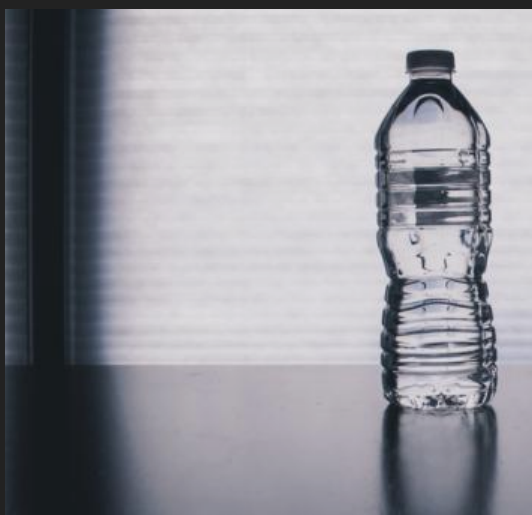
**During the manufacture of plastic, toxins and carcinogens are released from the fossil fuels and additives into the air and water**

**Industry workers and communities near to refining facilities are at greatest risk and face both chronic and acute exposures during uncontrolled releases and emergencies**



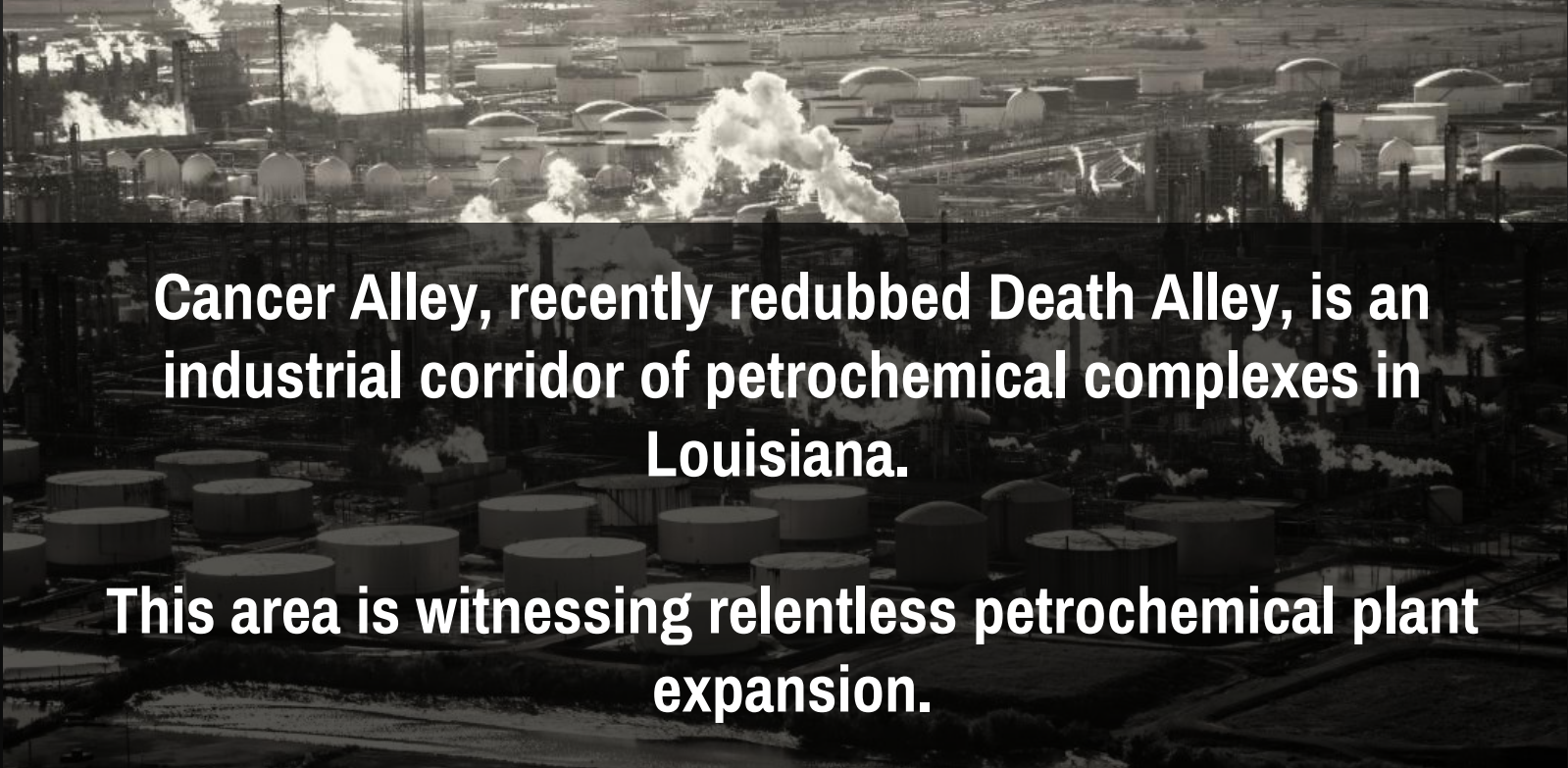
# HARMFUL EMISSIONS

Documented effects of exposure to these toxic substances include impairment of the nervous system, reproductive and developmental problems, cancer, leukemia, and genetic impacts like low birth weight.



Producing a 16 oz. PET bottle generates more than 100 times the toxic emissions to air and water than making the same size bottle out of glass.

# CANCER ALLEY



**Cancer Alley, recently redubbed Death Alley, is an industrial corridor of petrochemical complexes in Louisiana.**

**This area is witnessing relentless petrochemical plant expansion.**

**The black community of St. James Parish is a historic region where families can trace their ancestors back for generations.**

**There are already six petrochemical facilities in St. James, and five more are planned.**

# CANCER ALLEY

The proposed projects could triple nearby residents' exposure to air pollution in a region already infamous for alarmingly high rates of illness and death

LOUISIANA

Formosa Plastics Chairman  
Jason Lin said that America is  
preferred because

“In Taiwan the government treats  
petrochemical investment as a  
polluting industry and stigmatizes  
us.”



**“African Americans are 79 percent more likely than whites to live where industrial pollution poses the greatest health danger,”**

**79%**

**“TIME FOR WHITES TO STOP DUMPING THEIR POLLUTION ON PEOPLE OF COLOR”**

**DR. ROBERT BULLARD**

# Sources

**Plastic and Human Health: A Lifecycle Approach to Plastic Pollution  
Intimidation Tactics In Louisiana Won't Silence Opposition To Formosa  
Plastics**

<https://www.ciel.org/>

**The Deep Injustice of Plastic Pollution**

<https://www.sierraclub.org/articles/2020/07/deep-injustice-plastic-pollution>

**A Plastics Giant That Pollutes Too Much for Taiwan Is Turning to America**

<https://www.bloombergquint.com/businessweek/asian-company-that-pollutes-too-much-at-home-expands-in-america>

**Standing with St. James**

<https://labucketbrigade.org/our-work/standing-with-st-james/>

**Time for Whites to Stop Dumping Their Pollution on People of Color**

<https://drrobertbullard.com/time-for-whites-to-stop-dumping-their-pollution-on-people-of-color/>

**Welcome to "Cancer Alley," Where Toxic Air Is About to Get Worse**

<https://www.propublica.org/article/welcome-to-cancer-alley-where-toxic-air-is-about-to-get-worse>

**A Reality Check on Environmental Racism & Plastics**

<https://www.surfrider.org/coastal-blog/entry/a-reality-check-on-environmental-racism-plastics>

**The Deep Injustice of Plastic Pollution**

<https://www.sierraclub.org/articles/2020/07/deep-injustice-plastic-pollution>

**Environmental Impacts**

<https://ecologycenter.org/plastics/ptf/report3/>



**PLASTIC  
AND  
RACISM**

**PART 5: CONSUMPTION**

**Consumption**  
refers to the use of a resource i.e.  
plastic



**IN 2020 WE WILL GENERATE**

**900% more**

**PLASTIC THAN IN 1980**



**MILLION TONNES  
OF PLASTIC ARE  
PRODUCED  
ANNUALLY  
WORLDWIDE**

**500**



***By 2050***

***the oceans could contain  
more plastic than fish***



**Because of taxpayer-subsidized low price, as well as convenience, plastic products are more prevalent in BIPOC communities.**

**BIPOC**

**Black  
Indigenous  
People  
Of  
Color**

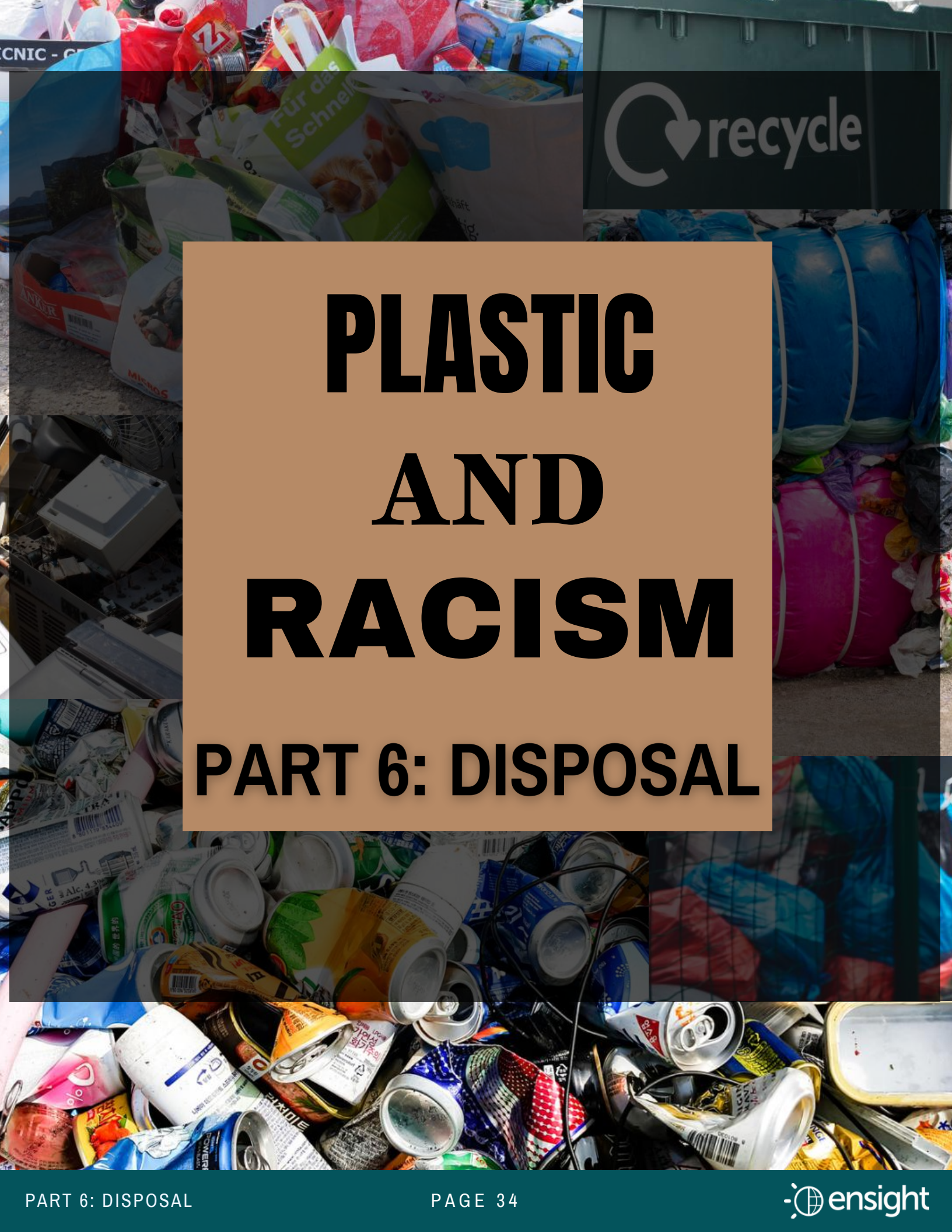


**The use of plastic instead of reusables makes BIPOC communities more susceptible to plastic pollution and more at risk of consuming the toxic chemicals in the plastic, as well as microplastics.**

# Sources

Plastic's influence on Environmental Racism

<https://www.sierraclub.org/texas/houston/blog/2020/07/plastic-s-influence-environmental-racism>



# PLASTIC AND RACISM

## PART 6: DISPOSAL



# RECYCLING?

**The myth that plastic is recyclable has been promoted by the plastics industry to ensure a continued market for it.**

**As early as 1973, oil and plastic executives knew that recycling plastic was not feasible.**

**So the industry decided to advertise their way out and has spent millions publicizing the virtues of recycling**

# RECYCLING?

8.3 billion metric tons of plastic have been created, most ending up as trash.

9% Recycled

12% Incinerated

79% Landfill - the environment - or the oceans

A circular icon representing landfill, featuring a black background with a collage of various plastic waste items like bottles, bags, and containers.

Landfill

A circular icon representing incineration, featuring a black background with a stylized orange and yellow flame.

Incinerator

A circular icon representing environmental impact, featuring a black background with various green and blue icons like a recycling symbol, a car, a lightbulb, a tree, and a water drop.

Environment

# INCINERATION

According to a 2019 report from the Global Alliance for Incinerator Alternatives there are 73 incinerators in the U.S. and 79% are located in BIPOC communities.

“Incineration of chlorinated substances in waste, such as polyvinyl chloride (PVC) plastic, leads to the formation of new chlorinated chemicals, such as highly toxic dioxins, which are released in stack gases, ashes and other residues. In short, incinerators do not solve the problems of toxic materials present in wastes. In fact they simply convert these toxic materials to other forms, some of which maybe more toxic than the original materials”



# LANDFILLS



More than half of all people in the United States who live within 3.0 kilometers (1.86 miles) of a hazardous waste facility are people of color

**Including:**

**2.5 million Hispanics or Latinos**

**1.8 million African Americans**

**616,000 Asians/Pacific Islanders**

**and**

**62,000 Native Americans**



# SOURCES

## Waste Land

<https://www.npr.org/2020/09/11/912150085/waste-land>

## A whopping 91% of plastic isn't recycled

<https://www.nationalgeographic.com/news/2017/07/plastic-produced-recycling-waste-ocean-trash-debris-environment/>

## A reality check on Environmental Racism and Plastic

<https://www.surfrider.org/coastal-blog/entry/a-reality-check-on-environmental-racism-plastics>

## Plastic's Influence on Environmental Racism

<https://www.sierraclub.org/texas/houston/blog/2020/07/plastic-s-influence-environmental-racism>

## Toxic Waste and Race at Twenty

<https://www.nrdc.org/sites/default/files/toxic-wastes-and-race-at-twenty-1987-2007.pdf>

## The Story of Plastic

<https://www.storyofplastic.org/>