

Terms

- **Social Justice:** The effort dedicated to creating and sustaining a fair and equal society regardless of status, race, color, national origin, or income, and where each person and group is valued¹
- **Environmental Justice:** The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies²
- **Environmental Racism:** The intentional neglect and targeting of minority groups through the development, implementation, and enforcement of environmental laws, regulations, and policies³
- **Environmental Injustice:** The disproportionate exposure of environmental hazards to communities of color and low-income populations. Environmental injustice also refers to health disparities as a result of environmental hazards⁴

EJ History: Stringfellow Acid Pits



Figure 1: Community leader Penny Newman
Source: CCAEJ

Glen Avon, CA

- The Stringfellow Acid Pits was a hazardous waste disposal site in the City of Jurupa Valley, CA. According to the Environmental Protection Agency (EPA), approximately 32 million gallons of liquid industrial waste were deposited by manufacturing companies
- A series of heavy rainstorms led toxic waste to spill into nearby homes of the Glen Avon community. Contamination in groundwater and private drinking wells near the site exposed residents to toxic chemicals, impacting public health
- Community leader Penny Newman organized residents in a decades-long fight to shut down and clean up the site. After several lawsuits, The State of California eventually paid \$114 million to residents and the EPA established the Comprehensive Environmental Response, Compensation, and Liability Act, or Superfund
- In 1982, the Stringfellow Acid Pits became the first Superfund site in California. In 2002, The California Department of Toxic Substances Control became the primary responsible party for the site's cleanup which include groundwater treatment systems⁵

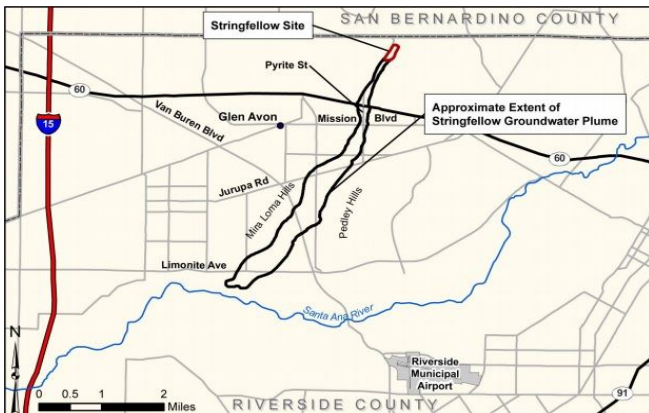


Figure 2: Location of the Stringfellow Acid Pit Sites
Source: EPA

Safe Drinking Water

- In Riverside County, public water systems treat water from groundwater aquifers, lakes, and wells, to comply with the Safe Drinking Water Act standards, enforced by the EPA. Riverside County residents may receive annual Consumer Confidence Reports from their respective water suppliers for information on drinking water sources and contaminant levels. There are approximately 22 water districts serving Riverside County to ensure there is access to safe drinking water⁶

PFAs Contamination

- Per-and poly-fluoroalkyl substances, or PFAs, are human-made substances widely used for their oil and water repellency, temperature resistance, and friction reduction in products like nonstick cookware, water-resistant clothing, and food packaging
- PFAs are often referred to as “forever chemicals” because they are among the most persistent man-made chemicals and easily spread into our soil, water, and air
- Humans can be exposed to PFAs by eating or drinking contaminated food or liquid
- Exposure to PFAs may lead to reproductive and developmental issues, among other adverse health effects⁷
 - According to a report by the National Resource Defense Council (NRDC), PFAs were detected in 160 of 248 public water systems ordered for testing in California
 - At least 69% of state-identified disadvantaged communities have PFAs contamination in their public water systems, in addition to other forms of pollution
 - Although there are no state regulations on PFAs in drinking water, the California State Water Resources Control Board has set notification and response levels for nine PFAs chemicals. Public water systems can decide whether they want to treat the water, take the contaminated water source offline, or notify their customers that their drinking water is over the response level⁸

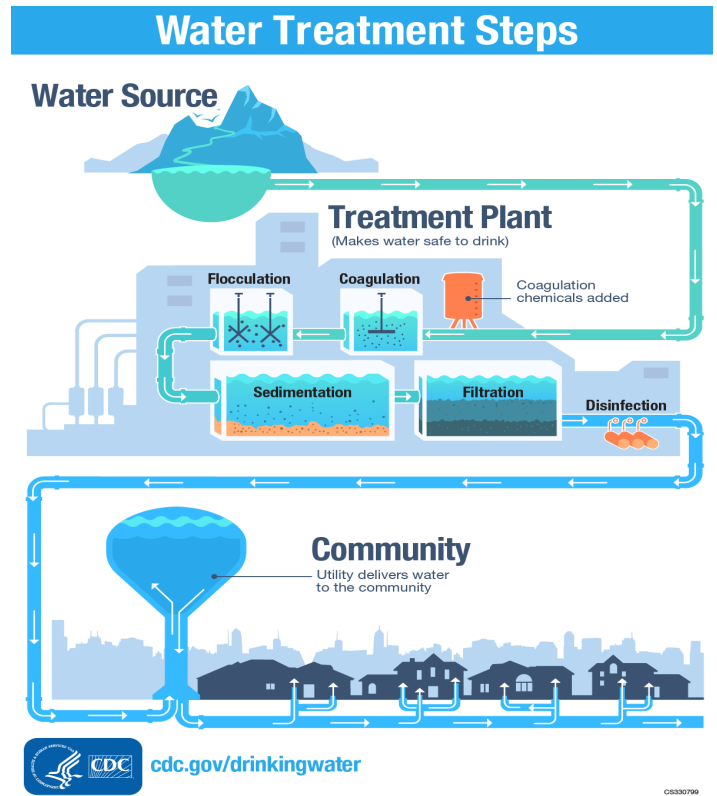
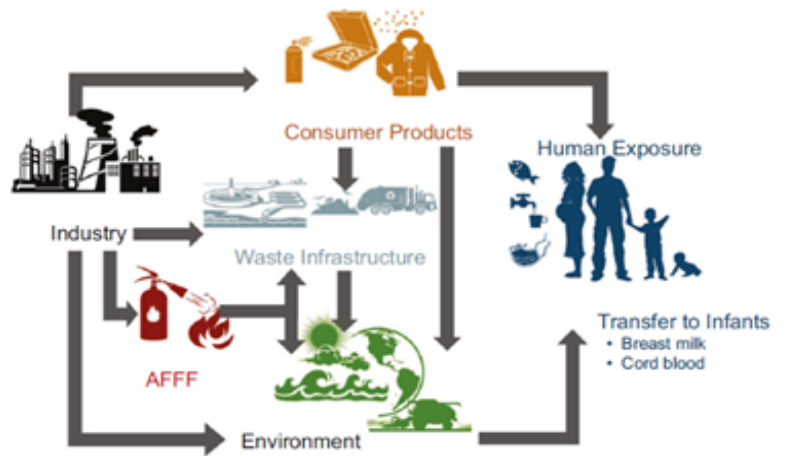


Figure 3: Water Treatment Steps
Source: Centers for Disease Control and Prevention (CDC)



Potential major exposure pathways of PFAS to humans.
Figure from Sunderland et. al. (2019)

Figure 4: Potential major exposure pathways of PFAS to humans
Source: CA Water Boards

Air Pollution

- Air pollution refers to the complex mixture of gases and small particles in the air. Particulate matter and ozone form “smog”
- Riverside County has continuously earned the letter grade “F” for particle and ozone pollution⁹
- The Air Quality Index (AQI) was developed by South Coast Air Quality Management District (AQMD) to indicate how clean or polluted the air is. A high AQI number signifies a greater level of air pollution and health concern¹⁰

Sources Of Pollution

- Mobile sources: cars, buses, planes, trucks, and trains
- Stationary sources: power plants, oil refineries, industrial facilities, and factories
- Area sources: agricultural areas, cities, and wood-burning fireplaces
- Natural sources: wind-blown dust, wildfires, and volcanoes¹¹

Social Impacts

- The impacts of air pollution on health depend on a variety of factors, such as the amount of pollution, length of exposure, a person’s health conditions, age, and genetic background
- Living near sources of air pollution like major roadways, ports, railyards, and industrial facilities can lead to health effects like asthma, reduced lung function, cardiovascular disease, and premature death¹²
- Studies have found that Black people are exposed to 21% more fine-particle pollution compared to average Americans, while exposure was 18% greater for Asian Americans and 11% more for Hispanic people. White Americans, by contrast, have 8% less pollution exposure than the average U.S. resident¹³
- Particulate matter 2.5 has been attributed to approximately 85,000-200,000 premature U.S. deaths each year. The mortality rate disproportionately affects BIPOC (Black, Indigenous, People of Color) communities¹³

Good (0 to 50).	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate (51 to 100).	Air quality is acceptable; however, unusually sensitive people should consider limiting prolonged outdoor exertion.
Unhealthy for Sensitive Groups (101 to 150).	The following groups should limit prolonged or heavy outdoor exertion: People with heart disease, pregnant women, children and older adults, people with lung disease, such as asthma
Unhealthy (151 to 200).	Everyone may begin to experience some adverse health effects (e.g. difficulty breathing and throat irritation), and members of the sensitive groups may experience more serious effects. The following groups should avoid prolonged time outdoors: People with heart disease, pregnant women, children and older adults, people with lung disease, such as asthma.
Very Unhealthy (201 to 300).	This would generate a health alert suggesting that everyone may experience more serious health effects. The following groups should avoid all outdoor physical activity: People with heart disease, pregnant women, children and older adults, people with lung disease, such as asthma. Everyone else should avoid prolonged or heavy outdoor activity.
"Hazardous" (greater than 300).	This would trigger a health warnings of emergency conditions. The entire population is more likely to be affected. Everyone should avoid all physical activity outdoors.

Figure 5: AQI Index
Source: South Coast AQMD

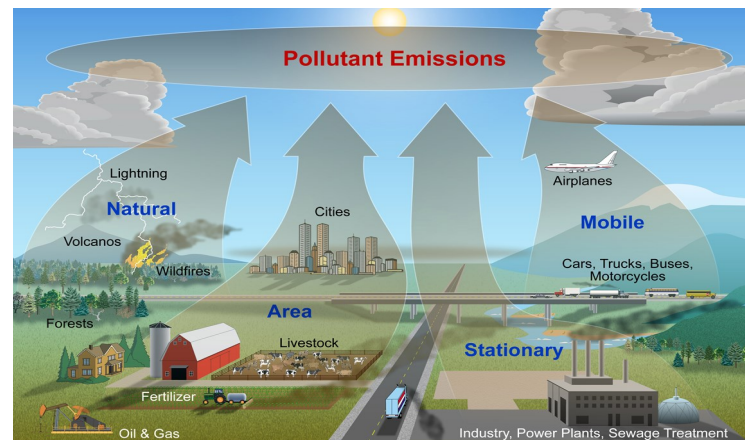


Figure 6: Air pollutant sources
Source: National Park Service

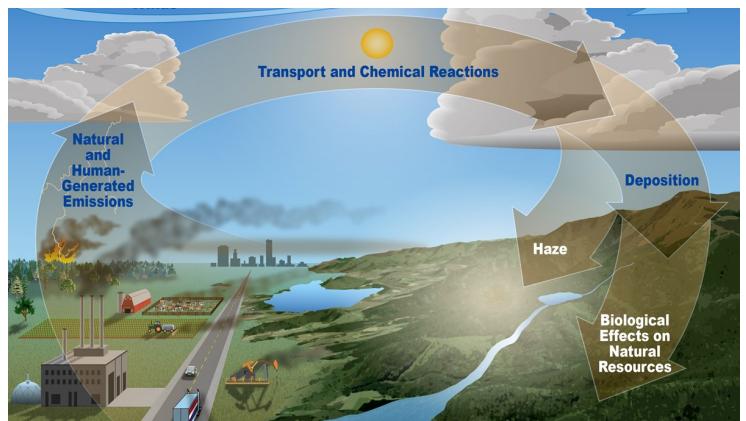


Figure 7: How air pollutants move through the ecosystem
Source: National Park Service

California Air Resources Board (CARB)

Mission: To promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. CARB is the lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards¹⁴

Community Air Protection Program: In response to AB 617, CARB established the Community Air Protection Program (CAPP) to reduce exposure in the most impacted communities through community air monitoring and community emission reduction programs¹⁵ Inland Empire's San Bernardino/Muscoy community was selected for an air monitoring plan¹⁶

South Coast Air Quality Management District (AQMD)

Mission: To clean the air and protect the health of all residents in AQMD's jurisdiction which includes large areas of Los Angeles, Orange, Riverside and San Bernardino counties, including the Coachella Valley¹⁷ The Environmental Justice Advisory Group (EJAG) assists South Coast AQMD in protecting and improving public health in the most impacted communities¹⁸

Warehouse Indirect Source Rule: The goods movement and heavy-duty trucks are major sources of smog in Southern California.

South Coast AQMD adopted Rule 2305, or the Warehouse Indirect Source Rule, which requires warehouses to directly reduce nitrogen oxide (NOx) and diesel particulate matter (PM) emissions¹⁹

Food Deserts And Food Insecurity

- The US Department of Agriculture defines a food desert as a low-income area with a lack of access to healthy, affordable foods
- Predominately Black and Hispanic communities have fewer supermarkets and must travel long distances to shop compared to white, affluent communities. Food deserts are also marked by high rates of food insecurity (lack of consistent access to sufficient, nutritious food) and health disparities²⁰
- In Riverside County, approximately 400,000 tons of edible food are discarded in landfills every year. Simultaneously, Riverside County residents may live in food deserts and experience food insecurity
- SB 1383, California's organic waste recycling and surplus food recovery law, requires **20%** of edible food that would otherwise be sent to landfills, be recovered for human consumption by 2025. Mandated food donors will work with food recovery organizations in order to address food insecurity in communities

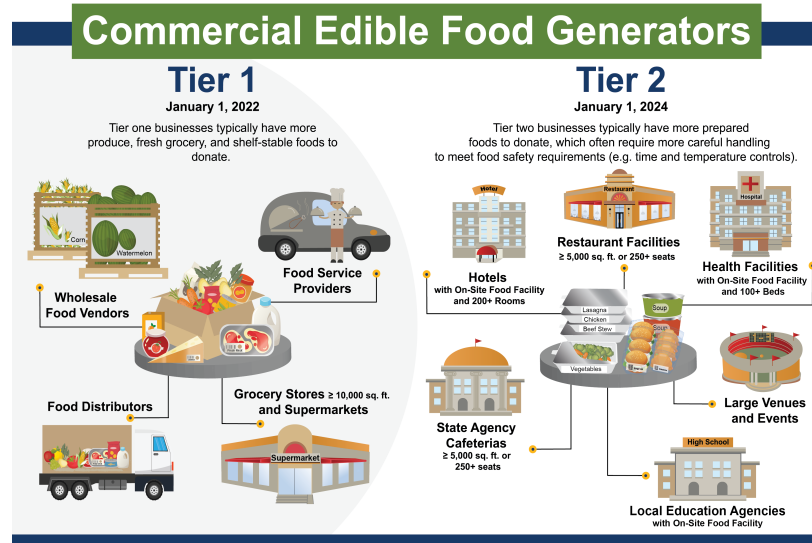


Figure 8: Edible Food Generators Source: CalRecycle



Sources

- 1 [Central Connecticut State University: Our Definition of Social Justice](#)
- 2 [Environmental Protection Agency: Environmental Justice](#)
- 3 [Green Action: Environmental Justice & Environmental Racism](#)
- 4 [Environmental Health News: Environmental Injustice](#)
- 5 [EPA STRINGFELLOW MIRA LOMA, CA Cleanup Activities](#)
- 6 [Riverside County Water Districts](#)
- 7 [California Water Board: PFAs](#)
- 8 [Natural Resources Defense Council: Dirty Water](#)
- 9 [American Lung Association: Riverside County](#)
- 10 [South Coast AQMD: Air Quality](#)
- 11 [National Park Service: Where Does Air Pollution Come From?](#)
- 12 [Environmental Protection Agency: EPA Research: Environmental Justice and Air Pollution](#)
- 13 [The Washington Post: Deadly air pollutant 'disproportionately and systematically' harms Americans of color, study finds](#)
- 14 [The California Air Resources Board: About](#)
- 15 [The California Air Resources Board: Community Air Protection Program](#)
- 16 [The California Air Resources Board: San Bernardino, Muscoy](#)
- 17 [South Coast AQMD: About](#)
- 18 [South Coast AQMD: Environmental Justice Advisory Group](#)
- 19 [South Coast AQMD: Annoucments for May 7, 2021](#)
- 20 [Healthline: What Are Food Deserts? All You Need to Know](#)