

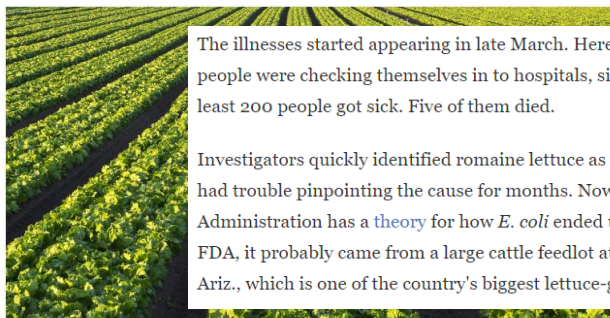
Environmental Justice & Climate Change



Unexpected Impact from Feedlots

What Sparked An E. Coli Outbreak In Lettuce? Scientists Trace A Surprising Source

August 29, 2018 · 4:58 AM ET
Heard on Morning Edition



The illnesses started appearing in late March. Here and there, across the country, people were checking themselves in to hospitals, sick from toxic *E. coli* bacteria. At least 200 people got sick. Five of them died.

Investigators quickly identified romaine lettuce as the source of the outbreak, but have had trouble pinpointing the cause for months. Now, the Food and Drug Administration has a theory for how *E. coli* ended up on that lettuce. According to the FDA, it probably came from a large cattle feedlot at one end of a valley near Yuma, Ariz., which is one of the country's biggest lettuce-growing areas.

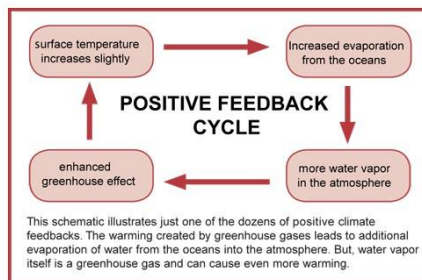
Source: <https://www.npr.org/sections/thesalt/2018/08/29/642646707/investigators-track-contaminated-lettuce-outbreak-to-a-cattle-feedlot>

Climate Change Basics

- [60 Second Animation](#)
- [Climate Change 101 w/ Bill Nye](#)

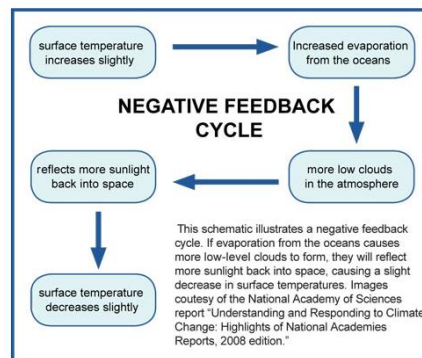


Feedback Loops



Positive Feedback:

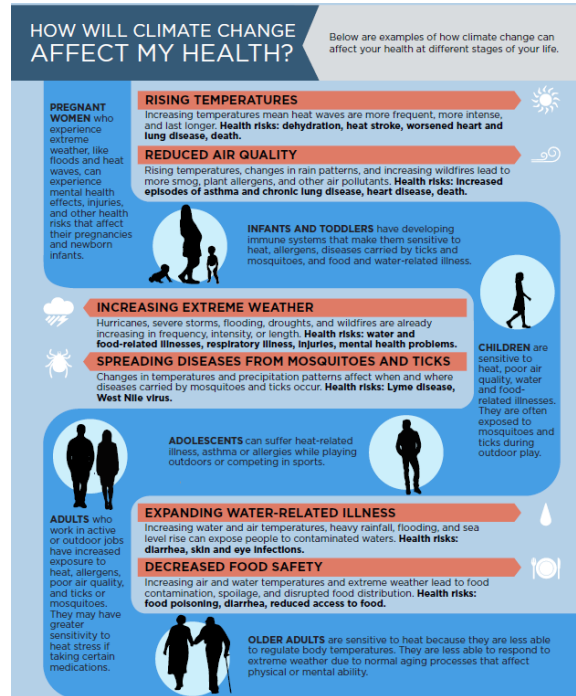
As part of a feedback loop, *causes augmentation* or increase in the magnitude of a phenomenon



Negative Feedback:

As part of a feedback loop, *causes a reduction* in or counteracts a phenomenon

Climate Change & Health



Definition: *Environmental Justice*

“A principle, as well as a body of thought and research, stressing the need for **equitable distribution of environmental goods** (parks, clean air, healthful working conditions) and **environmental bads** (pollution, hazards, waste) between people, no matter their race, ethnicity, or gender.

Conversely, **environmental injustice** describes a condition where unhealthful or dangerous conditions are disproportionately proximate to minority communities.”

Source: (Textbook) Robbins et al. 2014, p. 67)

Case Study: Flint Water Crisis

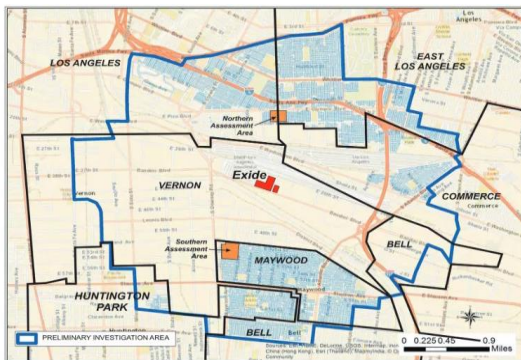


[Here's How Flint's Water Crisis Happened](#)



[Flint Water Crisis is "a Racial Crime"](#)

Local Case: Exide Battery



Exide Technologies Project
Figure 1
Preliminary Investigation Area



Environmental Health Centers at USC
2013-2014
2015-2016
2017-2018
2019-2020



Local Case: Exide Battery

In one of the most shocking cases of corporate irresponsibility and government regulatory failure in California history, the Exide battery plant in Vernon sent clouds of toxic substances flying over Commerce, Bell, Huntington Park, East Los Angeles and Boyle Heights for decades.

The number of potentially contaminated homes in the impacted 1.7 mile radius is estimated at 10,000.

And residents of the largely low-income Latino communities are wondering why the state is taking so long to come to their rescue, even as Gov. Brown himself visited the site of the Porter Ranch gas leak last year and declared an emergency. Porter Ranch schools were closed as a precautionary measure and residents relocated to safer areas.

"If someone gets a nose bleed in Porter Ranch, they relocate them," said Cano. "I think it's criminal, the amount of time they're taking."

"They moved mountains" in Porter Ranch, said East L.A. resident Amelia Vallejo, whose youngest son, Michael, 5, has severe developmental disabilities and is hard of hearing. "We've been here for years and look at our kids...they're damaged for life."

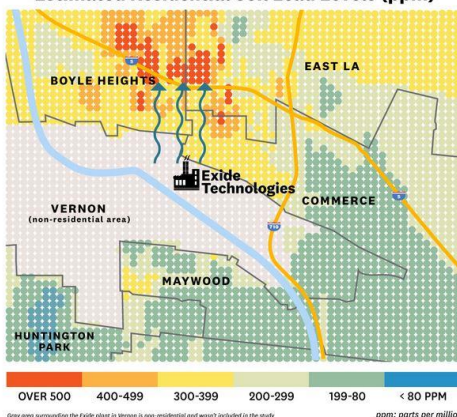
"Why don't they come here and raise a commotion? Is it because we're poor? Is it because we don't speak out? Is it because we're not white?"

Video Link: <http://www.latimes.com/local/california/la-me-lopez-exide-annoyance-20160207-column.html>

As of May 2019 (4 years after the plants closure) 788 properties have been cleaned. They have funding for a total of 2,500.

Westmoreland, the department spokeswoman, said this month it would be wrong to assume "any home that has a level between 80 ppm and 400 ppm requires cleanup. It does not."

Estimated Residential Soil Lead Levels (ppm)



Decades of airborne lead emissions from the now-closed Exide battery recycling plant settled into soil. New USC research shows that lead contamination ended up in the baby teeth of children living nearby. Higher lead in soil corresponded with higher lead in teeth. (Illustration/Diana Mollada)

Lead contamination found in baby teeth of children living near Exide battery plant

A new USC study revealed high amounts of lead in the teeth of children in five Los Angeles communities and reinforced the need to test for lead exposure before and during pregnancy.

By Leigh Hopper • MAY 6, 2019



A worker removes soil at the Exide facility, which released 3,000 tons of lead into a local settlement for its hazardous waste production. (Photo/Department of Toxic Substances Control)

- However, experts believe as many as 10,000 properties in the area could have poisonous lead in their soil.
- **400 ppm** - EPA standard for children's play areas
- **80 ppm** California's state threshold
 - established to protect children from losing more than an IQ point from exposure