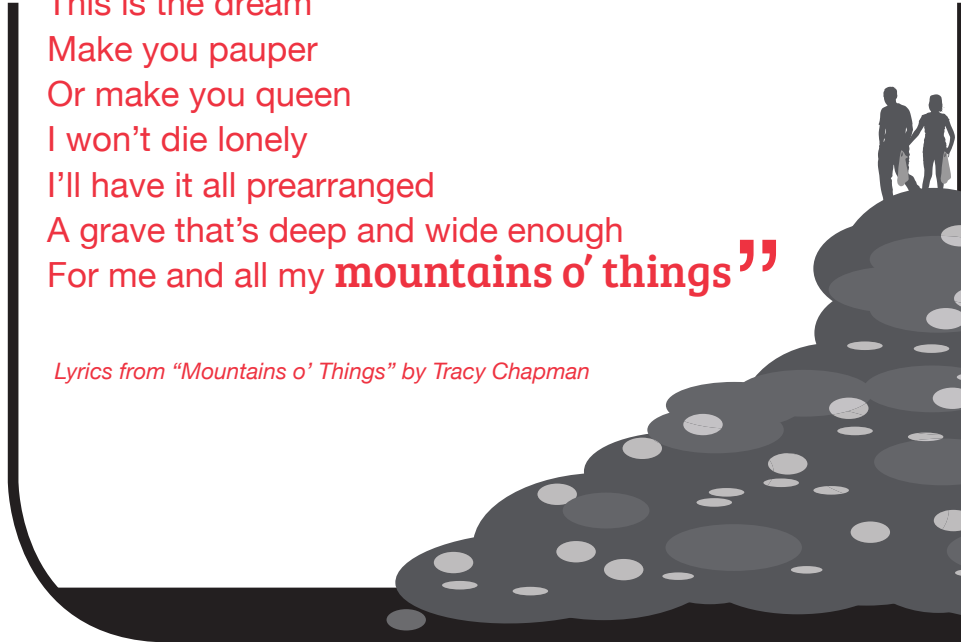


“Consume more than you need”

This is the dream
Make you pauper
Or make you queen
I won't die lonely
I'll have it all prearranged
A grave that's deep and wide enough
For me and all my **mountains o' things**”

Lyrics from “Mountains o' Things” by Tracy Chapman

1

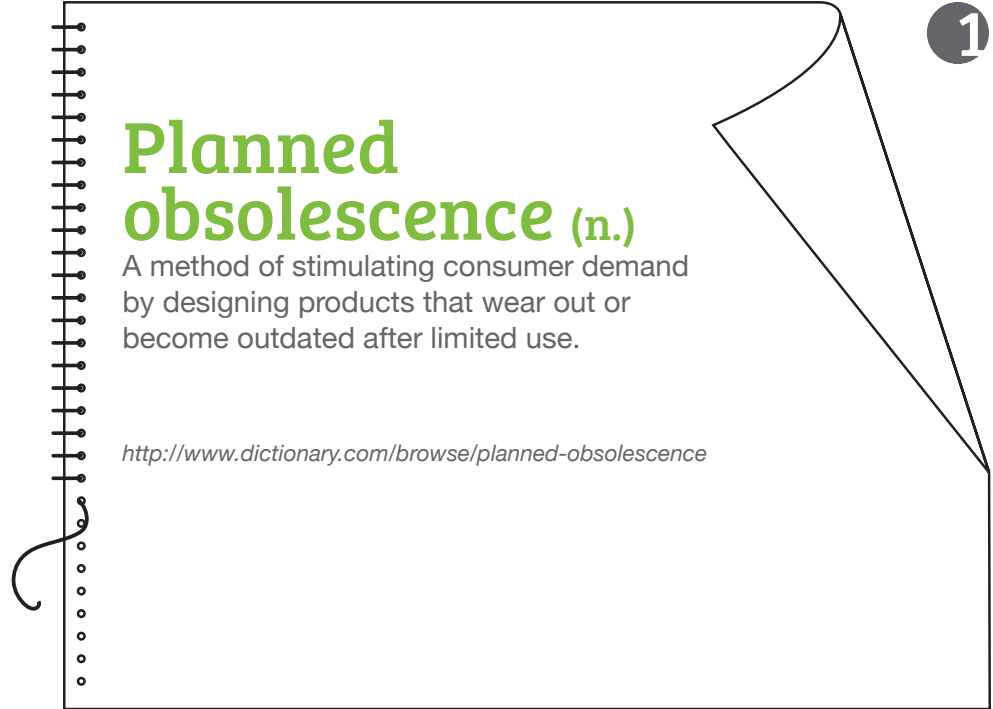


Planned obsolescence (n.)

A method of stimulating consumer demand by designing products that wear out or become outdated after limited use.

<http://www.dictionary.com/browse/planned-obsolence>

1



1

12 average number of minutes a plastic bag is used before being thrown away

1,000,000,000,000 number of plastic bags used globally each year

1,000 minimum number of years before a plastic bag decomposes



http://www.earth-policy.org/plan_b_updates/2014/update123

“Before [World War II], plastic played a very limited role in material life. After the war, [surplus] oil became the driving force behind the American economy, and plastics, which are **made from petroleum**, became **ubiquitous**, used in everything from dry cleaning bags and disposable pens to Styrofoam and shrink-wrap. An array of **disposable products** from plastic silverware to paper cups, meanwhile, **enshrined cleanliness and convenience...**”

1



Excerpt from *Down to Earth: Nature's Role in American History* by Ted Steinberg

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“ I am convinced that if we are to get on the right side of the world revolution, we as a nation must undergo a radical revolution of values. We must rapidly begin the **shift from a ‘thing-oriented’ society to a ‘person-oriented’ society.**”

When machines and computers, profit motives, and property rights are considered more important than people, the giant triplets of **racism**, **materialism**, and **militarism** are incapable of being conquered... ”

Excerpt from Dr. Martin Luther King, Jr.'s “A Revolution of Values”

http://zinnedproject.org/wp-content/uploads/2009/10/21king_revolution.pdf



1

“ Men and women are sacrificed to the **idols of profit and consumption**: it is the ‘**culture of waste**’Yet these things become the norm: that some homeless people die of cold on the streets is not news. In contrast, a ten point drop on the stock markets of some cities is a tragedy. [...] Thus people are disposed of, as if they were trash. ”

Excerpt from Pope Francis's Weekly Address during World Environment Day on June 3, 2015

https://w2.vatican.va/content/francesco/en/audiences/2013/documents/papa-francesco_20130605_udienza-generale.html

1

1



1

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Polyp, a British cartoonist
http://www.polyp.org.uk/cartoons/consumerism/polyp_cartoon_Rat_Race.jpg

1



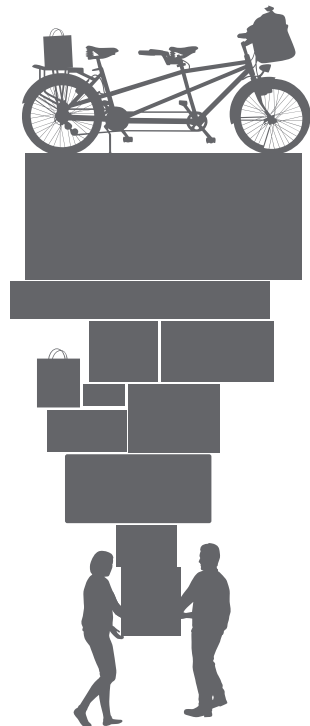
This panoramic image, titled "99 Cent," depicts a 99 Cents Only store in Los Angeles. It was taken by German photographer Andreas Gursky in 1999.
 © Andreas Gursky / 2017 Artists Rights Society (ARS), New York / VG Bild-Kunst, Bonn / Courtesy Sprüth Magers Berlin London

1

1

Consumerism (n.)

1. The protection or promotion of the interests of consumers.
2. The preoccupation of society with the acquisition of consumer goods.



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CAPS SEURAT

2011
60x90" in one panel,
and 88x132" in 3 panels

400,000 plastic bottle caps,
are depicted in Caps Seurat. That is
equal to the average number of plastic
bottles consumed in the
United States every minute.

Chris Jordan, Running the Numbers (2006-Present)
<http://www.chrisjordan.com/gallery/rtn/#caps-seurat>

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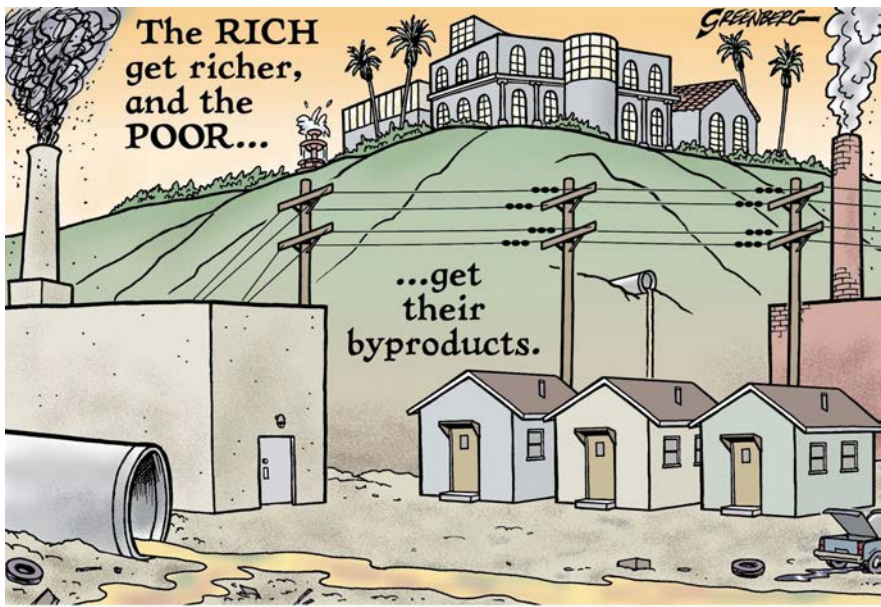
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Steve Greenberg, cartoonist April 15, 2010 VCReporter
Title: The poor get...

CartoonStock.com

<http://www.greenberg-art.com/.Toons/.Toons,%20Environ/PoorGet.html>

2



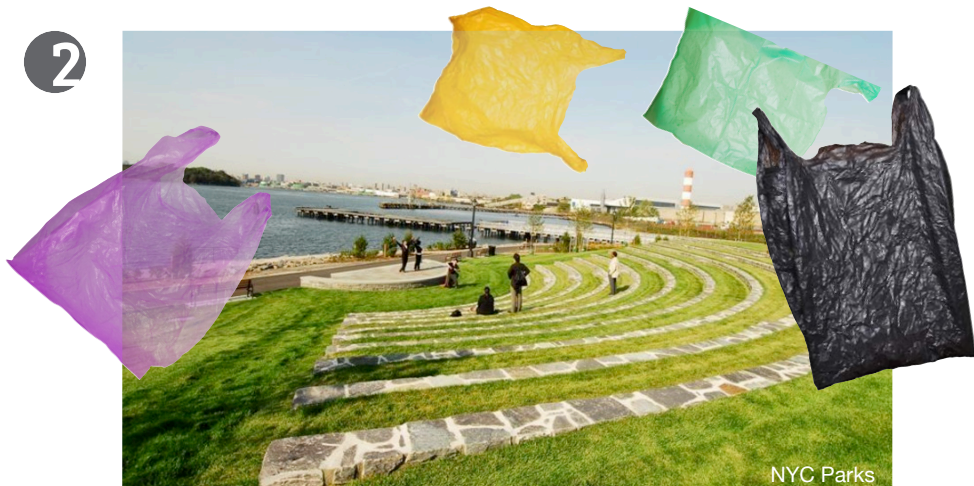
2

“Everyday, garbage trucks needlessly travel thousands of miles throughout New York City polluting our air with diesel fuel, clogging our streets, and diminishing our quality of life. These **impacts are greatest** in those **few low-income and communities of color** where old truck-dependent transfer stations are clustered, and along the truck routes used to haul garbage.”

Excerpt from a Testimony to the New York City Council (2/13/15)

http://www.nyc-eja.org/public/newsroom/NYC-EJA_TestimonytoCityCouncil_CapacityReduction_102513.pdf

2



2

Environmental justice is 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 policies. **No group of people should bear the impact** of negative environmental consequences, and all people should have the **opportunity to participate** in decisions about things that may affect their environment and health.

Definition from the United States Environmental Protection Agency

“On a windy day, fumes and debris can blow into Barretto Point Park from [nearby waste transfer] stations. Private transfer stations are sometimes open to the elements.”

<http://www.nyenvironmentreport.com/the-bronx-is-breathing/>

<https://www.epa.gov/environmentaljustice>

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Every day, nearly **6,000 tons** of trash are hauled in and out of the South Bronx, requiring about 1,400 diesel truck trips. This means **two to three truck trips every minute** over a typical eight to ten hour day.



<http://www.nyenvironmentreport.com/the-bronx-is-breathing/>



Fishermen have to navigate plastic debris to catch the seafood they hope to sell.

<http://creofire.com/wp-content/uploads/2014/06/ur12.jpg>

2



Photo Credit: Photographer: Jenny Labalme
Copyrighted Photo taken by Jenny Labalme
Permission granted to Saira Butt for her website

Protesters lying in front of dump trucks taking soil contaminated with PCB to the landfill.

2

In 1973, the Ward Transformers Company dumped 31,000 gallons of polychlorinated biphenyl (PCB) on the side of roadways in 14 North Carolina counties. NC devised a plan to build a **landfill** to deposit the **contaminated soil**.

2

The site of the landfill was Shocco, a rural town in Warren County that was **75% African American**, with neither a mayor nor a city council. Warren County had the highest majority of African Americans and out of North Carolina's 100 counties, it was ranked **97th in GDP**.

Residents feared that their **groundwater would be contaminated** by PCB, so **local leaders organized protests** against the construction of the landfill which attracted the support of civil rights groups nationwide.

https://sites.duke.edu/docst110s_01_s2011_sb211/what-is-environmental-justice/history/



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“A 2009 NYU-Wagner study reported that **‘rates of death from asthma are about three times higher in the Bronx than the national average. Hospitalization rates are about five times higher.’**”

2



<http://www.nyenvironmentreport.com/the-bronx-is-breathing/>



2

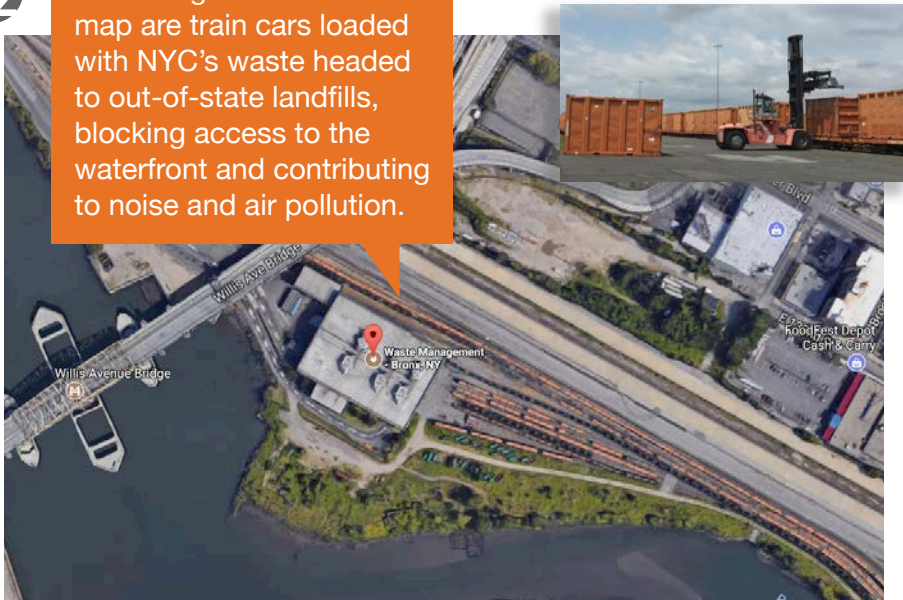
Neighborhood residents playing basketball at a court located near the Shell Oil Refinery in Norco, Louisiana.

©Mark Ludak

http://www.mhhe.com/socscience/anthropology/image-bank/kottak/chap14/kot37055_1409ta.jpg

2

The orange lines on this map are train cars loaded with NYC’s waste headed to out-of-state landfills, blocking access to the waterfront and contributing to noise and air pollution.

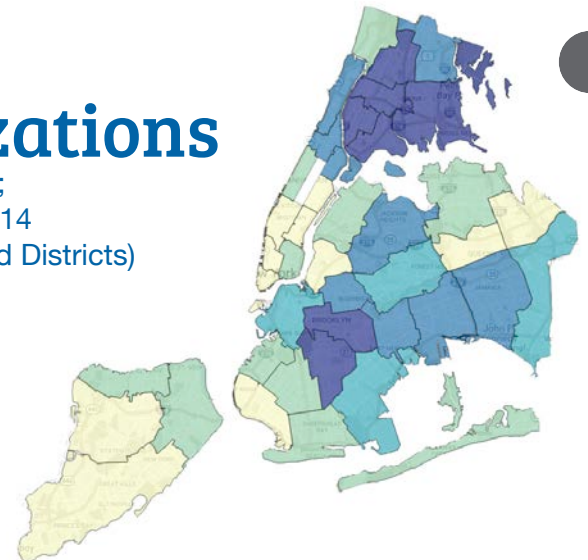


Source: Google Maps screen capture 5/17/17

Asthma Hospitalizations

Age Group: 0 to 14 years;
UHF District; Number; 2014
(2010, United Health Fund Districts)

7 to 43
52 to 97
109 to 165
202 to 347
447 to 624



2

Source: Citizens’ Committee for Children of New York (2013)

New York State Statewide Planning and Research Cooperative System (SPARCS) Deidentified Hospital Discharge Data, retrieved from New York City Department of Health and Mental Hygiene NYC Tracking Program: Environment and Health Data Portal. [Asthma Hospitalizations (Children under 15); 2000-2014]. <http://a816-dohbesp.nyc.gov/IndicatorPublic/>

<http://data.cccnewyork.org/data/map/7/asthma-hospitalizations#7/197/4/11/20/a>
<http://www.cccnewyork.org/blog/concentrations-of-risk-asthma-and-poor-housing-conditions/>

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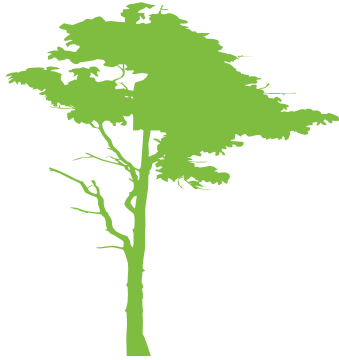
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“Only when the **last tree** has been cut down, the last fish been caught, and the last stream poisoned, will we realize we cannot eat money.”



Cree Indian Prophecy

3



3 times

as much water is used to make the plastic water bottle that you drink from.

<http://bit.ly/2qz0Bx0>

3



©2013 Walter Siegmund

The timber industry deforests land and replaces it with a monoculture tree farm, meaning all trees are the same type and same age. This patchwork forest is near Clatsop County, Oregon. This pattern of land use displaces and diminishes native flora and fauna, and releases greenhouse gases.

<https://en.wikipedia.org/wiki/Clearcutting>
[Lewis and Clark River 2148s.JPG](#)

3



Amount of oil needed to make
1 plastic bottle

<http://bit.ly/2qz0Bx0>

3

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Non-renewable resource (n.)

A resource that **does not renew itself** at a rate fast enough for human extraction (i.e., millennia and millions of years vs. years or decades).



Examples include **minerals** and **metal ores, fossil fuels (coal, petroleum, natural gas)** and **ground-water** in certain aquifers.

https://en.wikipedia.org/wiki/Non-renewable_resource

Aerial view of strip mine with heavy machinery - Stuart Hall - Photographer's Choice - Getty Images.



http://www.theworldcounts.com/counters/shocking_environmental_facts_and_statistics/resources_extracted_from_earth



“ I see a lot of **damage to Mother Earth.**



I see water being taken from creeks where **water belongs to animals, not to oil companies.**”

Winona LaDuke, an environmentalist, activist, and member of the Ojibwe nation



“Fracking”
by Kap (2013)

<https://www.caglecartoons.com/viewimage.asp?ID={1A1B8453-1909-4BC4-B360-86F950D1D4F5}>



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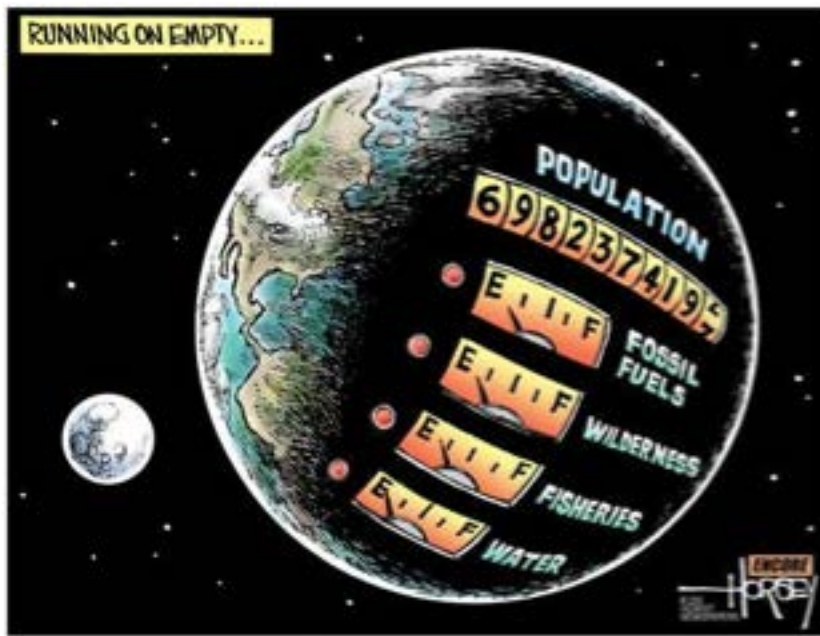


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“Running on Empty” by David Horsey (2011)

<http://www.sfgate.com/news/article/Running-on-empty-2383756.php>

“Every year there are more people on the planet, and every year more of them move to cities. Since 1950, the **world’s urban population has ballooned** to over 3.9 billion from 746 million.

“To build those cities, people are pulling untold amounts of sand out of the ground. Usable sand is a **finite resource**. Desert sand, shaped more by wind than by water, generally doesn’t work for construction. To get the sand we need, we are **stripping** riverbeds, floodplains and beaches.”



<https://www.nytimes.com/2016/06/23/opinion/the-worlds-disappearing-sand.html>

3

“Like that famous ship [the Titanic], [society’s] infrastructure is powered by **brutish** and **artificial** sources of energy that are **environmentally depleting**. It pours waste into the water and smoke into the sky. It attempts to work by its own rules, which are **contrary to those of nature**. And although, it may seem invincible, the fundamental **flaws in its design** presage tragedy and disaster.”



Excerpt from “Cradle to Cradle” by William McDonough & Michael Braungart

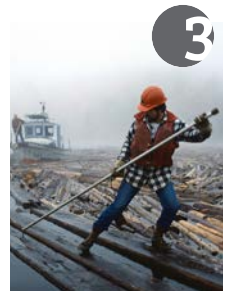
3

Natural resource extraction

is the set of activities that involve removing materials from the environment.



Logging is one example of resource extraction. If not done in a sustainable manner, logging extracts trees and their removal causes other changes that can result in soil and nutrient removal from the logged area. Even if it is accomplished sustainably, logging changes an environment.



Definition from Encyclopedia.com

3

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The fossil fuel industry has grown over the past decade by combining horizontal drilling and **fracking** to **extract oil & gas** from shale and other underground rock formations.

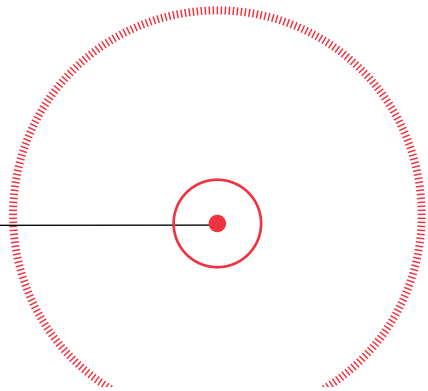
Fracking injects large quantities of water, sand and toxic chemicals under high pressure to release oil and gas that are tightly held in rock layers.

The fracking boom and low-priced natural gas have **spawned a resurgence in plastics manufacturing** — and the **pollution** that comes with it. Transforming ethane into plastics and other products is inherently **toxic**, polluting the environment and imposing **public health risks** on petrochemical workers and the communities near the plants.



Alberta Tar Sands (Canada)

Tar sands are a mixture of mostly sand, clay, water, and a thick, molasses-like substance called **bitumen**. Bitumen is made of **hydrocarbons**—the same molecules in liquid oil—and is used to produce gasoline and other petroleum products. **Extracting bitumen from tar sands, and refining it into products like gasoline, is significantly costlier and more difficult than extracting and refining liquid oil.**





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“There is **no such thing as ‘away.’**”



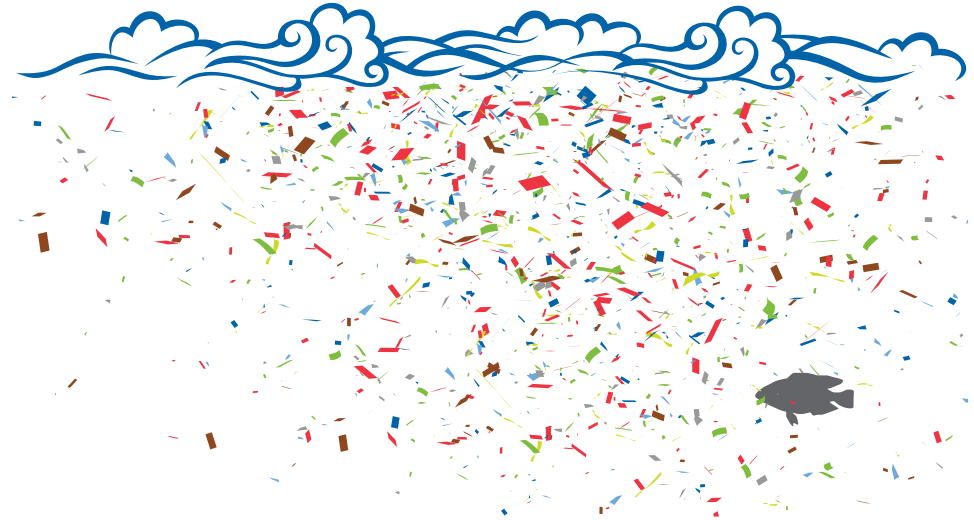
When we throw anything away it must go somewhere.”

Annie Leonard, *The Story of Stuff*

4

By 2050, there will be **more plastic than fish**, by weight.

4



<https://www.weforum.org/agenda/2017/01/more-plastic-in-sea-than-fish-3-strategies/>



Chris Jones
5 Gyres FAQ #1: What is a gyre?
World Map courtesy of Wikimedia Commons (commons.wikimedia.org)

4

Ocean Dumping Ban Act of 1988

4

In the past, communities around the world **used the ocean for waste disposal**, including the disposal of chemical and industrial wastes, radioactive wastes, trash, munitions, sewage sludge, and contaminated dredged material.

This federal law made it **unlawful** for any person to **dump**, or transport for the purpose of dumping, **sewage sludge** or **industrial waste** into ocean waters after December 31, 1991.



<https://vimeo.com/154149905>

<https://definitions.uslegal.com/o/ocean-dumping-ban-act-of-1988/>

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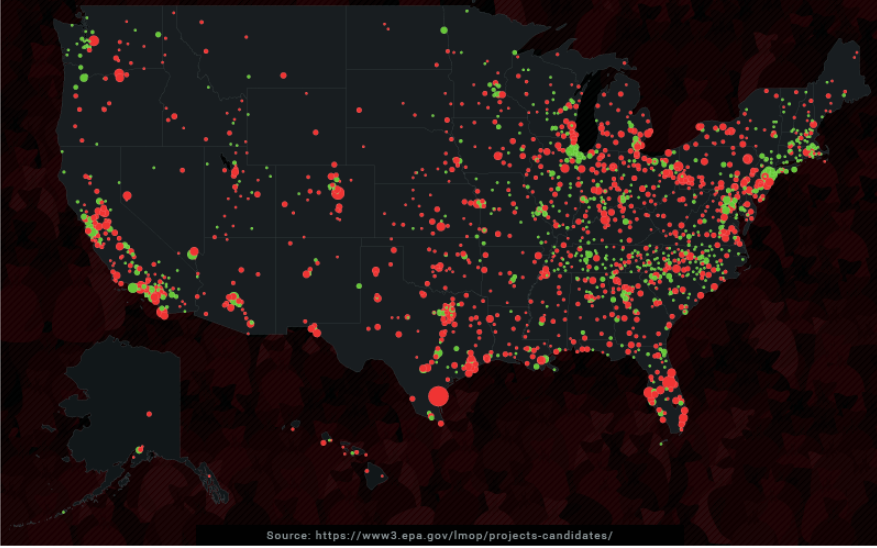
A CENTURY OF AMERICAN GARBAGE

LANDFILLS OVER TIME, BY SIZE AND CURRENT STATUS

2013

LANDFILL STATUS

Open Closed



Source: <https://www3.epa.gov/lmop/projects-candidates/>

<https://www.saveonenergy.com/land-of-waste/>

4

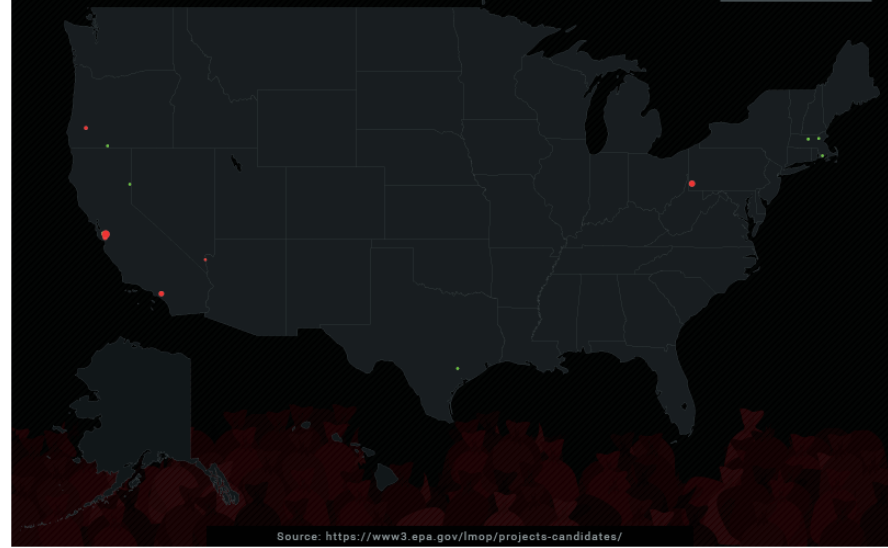
A CENTURY OF AMERICAN GARBAGE

LANDFILLS OVER TIME, BY SIZE AND CURRENT STATUS

1930

LANDFILL STATUS

Open Closed



Source: <https://www3.epa.gov/lmop/projects-candidates/>

<https://www.saveonenergy.com/land-of-waste/>

4

40%

of food in the United States goes uneaten.



Most of that food goes to landfills.

<https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>

4

LINEAR ECONOMY



4

<https://www.linkedin.com/pulse/zero-waste-want-matthew-s-hollis>

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4

<https://vimeo.com/195856946>



4

Chris Jordan, Midway Atoll Refuge
<http://www.chrisjordan.com/gallery/midway/#CF000313%2018x24>

Throw away (phrasal verb)

1. To get rid of something that you no longer want
2. To waste something such as an opportunity or an advantage



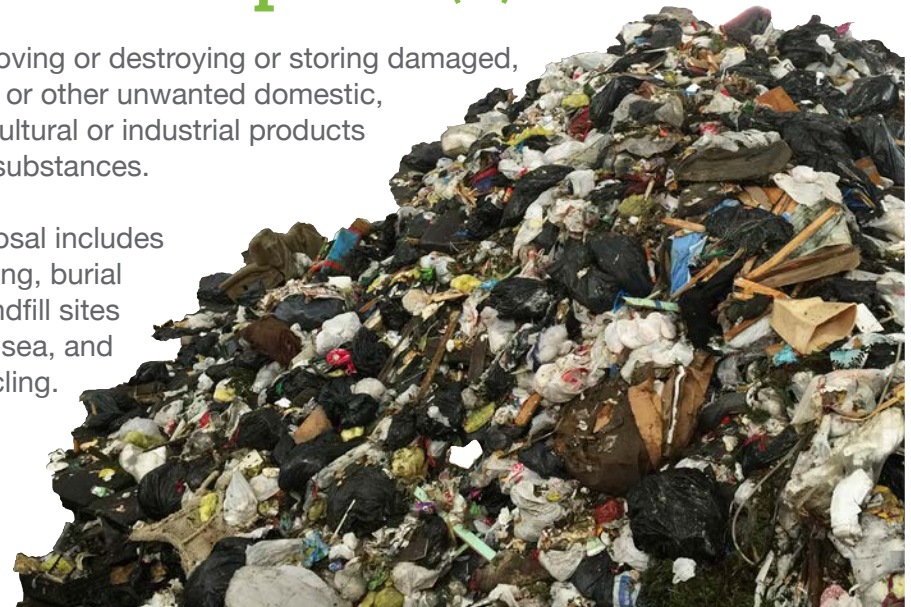
<http://www.macmillandictionary.com/us/dictionary/american/throw-away>

4

Waste disposal (n.)

Removing or destroying or storing damaged, used or other unwanted domestic, agricultural or industrial products and substances.

Disposal includes burning, burial at landfill sites or at sea, and recycling.



4

<http://www.thefreedictionary.com/waste+disposal>

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4

“‘It’s important to understand that ‘waste-to-energy’ is not an accurate term,’ says Mike Ewall, [a veteran environmental justice advocate in the Chester, PA area].
‘Incinerators are still incinerators even if they produce electricity.’”

“The argument is over whether ‘waste-to-energy’ plants adequately **capture** enough of the **pollutants** that are produced by trash-burning, or **continue to release dangerous toxins** into the air the same way old-fashioned incinerators did.”

CityLimits.org, “Life Near a Landfill” by Jarrett Murphy

<https://citylimits.org/2015/05/22/life-near-a-landfill-the-towns-and-people-who-end-up-with-nycs-trash/>

4

“Most likely, you think we hated the elephant, the golden toad, the thylacine and all variations of whale harpooned or hacked into extinction.

It must seem like we sought to leave you nothing but benzene, mercury, **the stomachs of seagulls rippled with jet fuel and plastic.**”

Excerpt from “Letter to Someone Living Fifty Years from Now” by Matthew Olzman
<https://www.poets.org/poetsorg/poem/letter-someone-living-fifty-years-now>



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“In 1895, sanitary conditions had become intolerable. Horses were leaving an estimated 2.5 million pounds of manure and 60,000 gallons of urine on the streets every day.



Horse carcasses rotted in the streets. Garbage piles reached a foot or two deep, cleared only haphazardly by “ragtag army of the unemployed.”

5

5



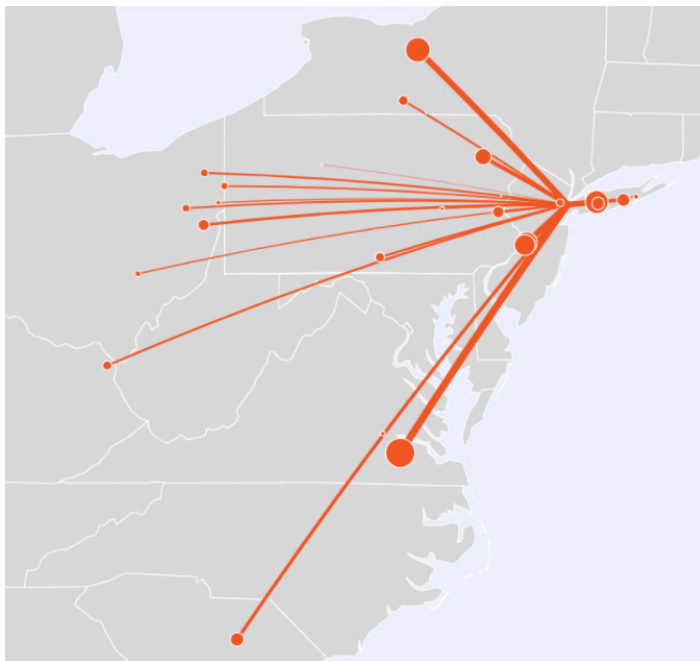
traveled from **New York City to Belize and back** trying to find a place to dump its waste.





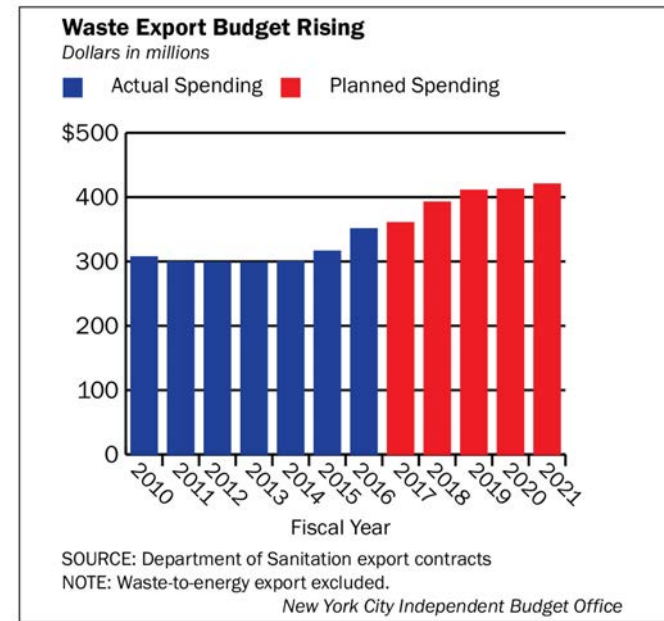
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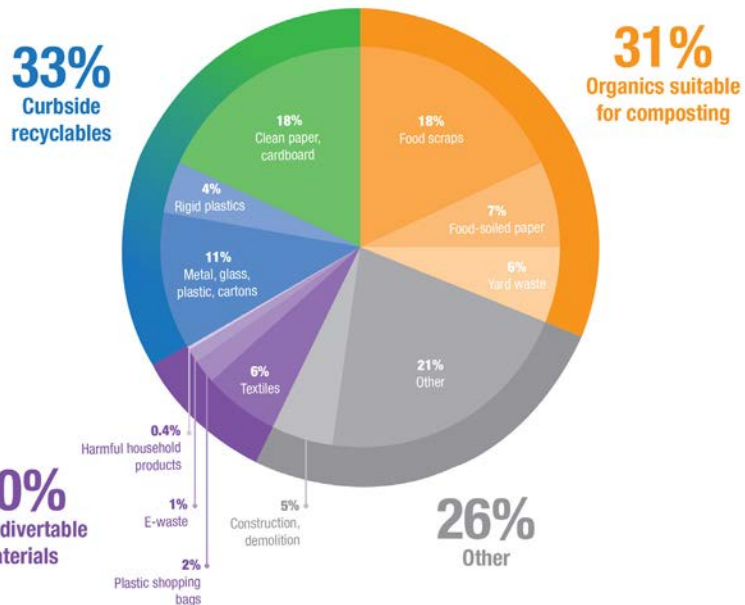
Landfills where New York City sends its waste
<http://journeys.gettingtozero.nyc/curb-to-landfill>

5



<http://www.ibo.nyc.ny.us/iboreports/waste-export-costs-to-rise-as-remaining-marine-transfer-stations-open-march-2017.pdf>

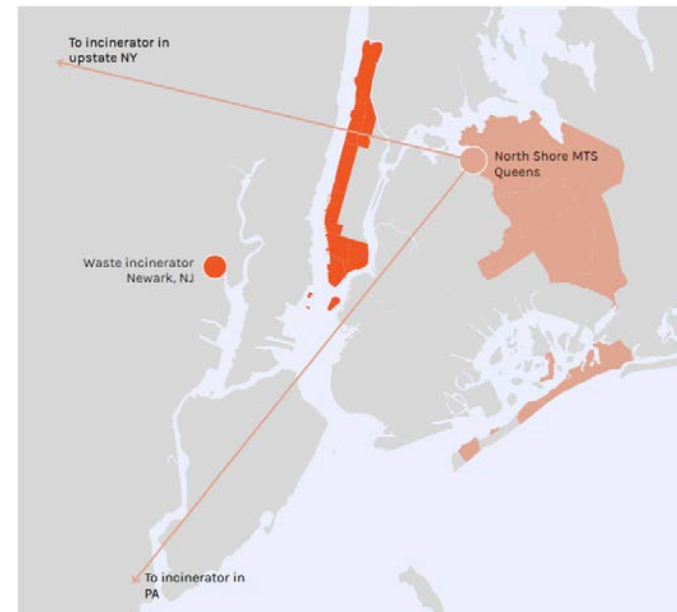
5



Source: 2013 Waste Characterization Study, NYC Department of Sanitation

<https://www1.nyc.gov/assets/dsny/downloads/pdf/studies-and-reports/OrganicsCollection-LL77-NYCOrganicsCollectionReport-2015.pdf>

5



Incinerators where New York City sends its waste
<http://journeys.gettingtozero.nyc/incineration>

5

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16%

diversion rate*
in 2016

100%

diversion rate*
goal by 2030

*diversion rate (n.)

the percentage of waste diverted from traditional disposal (i.e., landfilling, incineration) to be recycled, composted, or re-used

https://www1.nyc.gov/assets/dsny/docs/about_dsny-non-dsny-collections-FY2016.pdf



Food waste is a major environmental and social problem in the United States, and in New York City, food waste leads to unsightly streets, smelly sidewalks, and large rat populations.

<https://www.flickr.com/photos/39908901@N06/7559458802>

New York City's recycling law-- which provided residents with curbside collection of recyclables -- took effect on **July 14, 1989**.



Voluntary recycling collections, which had already begun in some neighborhoods, were now becoming mandatory citywide.

<https://www.nrdc.org/experts/eric-goldstein/new-york-citys-history-making-recycling-law-turns-25-years-old-part-i>



Street litter ultimately ends up in our waterways, as seen in this image of the Bronx River

<https://www.riverkeeper.org/news-events/news/water-quality/exploring-polluted-nyc-waterways-decide-im-going-can/>

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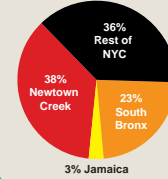
“Pizza Rat” might have been a funny viral video, but rats are a serious problem in New York City. They nest 100 feet from a food source, and **with piles of trash all over the city’s aging infrastructure**, it is a perfect rat habitat. Rats cause structural damage and carry diseases that can be fatal to humans.

Facts: Rat Academy, NYC Department of Health
<http://images.hellogiggles.com/uploads/2015/10/07/pizza-rat.jpg>

Barge NYC's Garbage

Fair Share

At New York City's 58 waste transfer stations (WTS), waste collection vehicles transfer their loads to tractor-trailer trucks, railcars, or marine barges for export. Because WTS are not evenly distributed throughout the City and because most WTS use tractor-trailers for export, disposing of NYC's waste generates unnecessary truck traffic and pollution. By utilizing marine and rail transfer stations in closer proximity to collection vehicle routes, the City can alleviate environmental impacts for the whole City and in neighborhoods inundated by more than their fair share of the City's noxious infrastructure.



Currently, the South Bronx and the neighborhoods surrounding Newtown Creek host a combined 32 waste transfer stations. Collectively, these WTS handle over 60% of the 12 million plus tons of waste moving through WTS in NYC annually.

The waste transfer stations located in Jamaica, Queens handle a smaller slice of NYC's total waste. However, due to irregular zoning, these four WTS are located directly next to residential neighborhoods, magnifying their impact on the health and well-being of the surrounding community.



Created by HabitatMap in partnership with the Organization of Waterfront Neighborhoods

http://www.habitatmap.org/habitatmap_docs/BargeNYC'sGarbage_FairShare.pdf

WASTE DEEP Issue Cards



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