




YOUTH LEADERSHIP INSTITUTE
Use Your Voice

VOICE WAVES

Youth Media

AN INTRO TO CLIMATE CHANGE IN LONG BEACH

RESEARCHED, WRITTEN & ILLUSTRATED
BY LONG BEACH YOUTH,
FOR LONG BEACH YOUTH



"Youth voice. Loud and clear." This motto guides our work at Youth Leadership Institute (yli). For this edition from our VoiceWaves program, our youth leaders used their voices to research how climate change — an issue they have firsthand experience with — impacts local communities, and how we can take action to protect ourselves from it and get involved in efforts to address it. This publication is the product of our youth's hard work in research, interviewing, and illustrating — all done to help educate their peers about climate change's impact on their lives. This Zine exists because our youth know the power their voices hold. We hope it inspires you to use yours.

Thank you for reading and supporting our youth!
— Carlos Omar, yli Senior Program Coordinator



JOIN

**VOICE
WAVES**
Youth Media



Scan to Join!



If you want to learn skills to tell stories about what's happening in our communities, you're in the right place! Our program is free and currently recruiting. You can learn how to do it all with us, so no experience is required. We'll teach you to publish stories using these skills:



Photography



Writing



Video



Social Media



Zines



Podcasting

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A LOOK AT LOCAL CLIMATE CHANGE

BY BRIANNA MONTAÑO AND SARA AHMED

Climate change is everywhere. And if you don't feel it yet, you likely will in the future. If you explore Long Beach for long enough, you begin to see this. Each part of Long Beach is unique when it comes to its attractions and characteristics, and each part is also unique in how different factors influence its environment. In this piece, we'll cover what causes climate change in Long Beach and the impact these factors have on different areas.

WHAT ACTUALLY CAUSES POLLUTION?


Local climate change is caused by many factors. Some of them, we see everywhere. Cars, for example. Other sources of pollution and climate change are more present in some communities than they are in others, meaning these communities face disproportionate impact to pollution burden and the health effects caused by it. Emissions released through ozone, diesel particulate matter, and greenhouse gases like carbon dioxide (CO₂) affect the atmosphere and cause bodily harm that includes, but is not limited to, issues like inflammation, heart disease, and lung disease.^{[2] [3]}



HOW ARE PARTS OF THE CITY AFFECTED?

North Long Beach is surrounded by freeways — the 91, 405, and 710 routes sit on different ends of this region of the city. This area faces higher exposure to PM2.5, also known as particulate matter, which can travel from cars and trucks into our lungs, leading to heart and lung diseases. North Long Beach neighborhoods directly by freeways rank among the highest percentages for exposure to diesel particulate matter, which can cause a variety of health problems — such as cancer.^[3]

West Long Beach faces similar issues due to running alongside the 710 freeway, but it also features unique pollution sources. Large trailer trucks move through this area to reach the Port of Long Beach, and the area is also located next to refineries. The emissions caused by these facilities contribute to higher rates of pollution in this region. West Long Beach faces higher exposure to hazardous waste and ranks in high percentile ranges for rates of asthma and cardiovascular diseases. Both North and West Long Beach are also known to lack green spaces, so they lack spaces that can help mitigate the warming and pollution caused by these sources.^[3]



Downtown Long Beach, which is near the port and the 710 freeway, faces high exposure to diesel particulate matter and toxic releases from local facilities. This exposure drops in more eastward neighborhoods like Alamitos Beach, Belmont Shore, and Los Altos.

WHAT'S IN STORE FOR OUR FUTURES?

Emissions from local sources contribute to climate change through the greenhouse effect, which traps heat from the sun in our atmosphere. Structures like buildings and roads also absorb and release heat, contributing to warmer temperatures. The frequency of extreme heat events is projected to increase, which will have impacts on the public health, energy demand, and infrastructure in the city. Days of extreme heat are projected to increase to 11 to 16 days per year by mid-century, and as many as 37 days by 2100. This may cause sea-level rise, which puts local coastal neighborhoods at risk of flooding. As air quality worsens due to higher temperatures interacting with pollution, we may see an increase in the impact of respiratory problems like asthma and cancer.^[1]

Keep reading to learn about efforts to address these issues and improve our future!

HERE'S A LOOK AT SOME OF WHAT THE CITY IS DOING TO ADDRESS CLIMATE CHANGE!

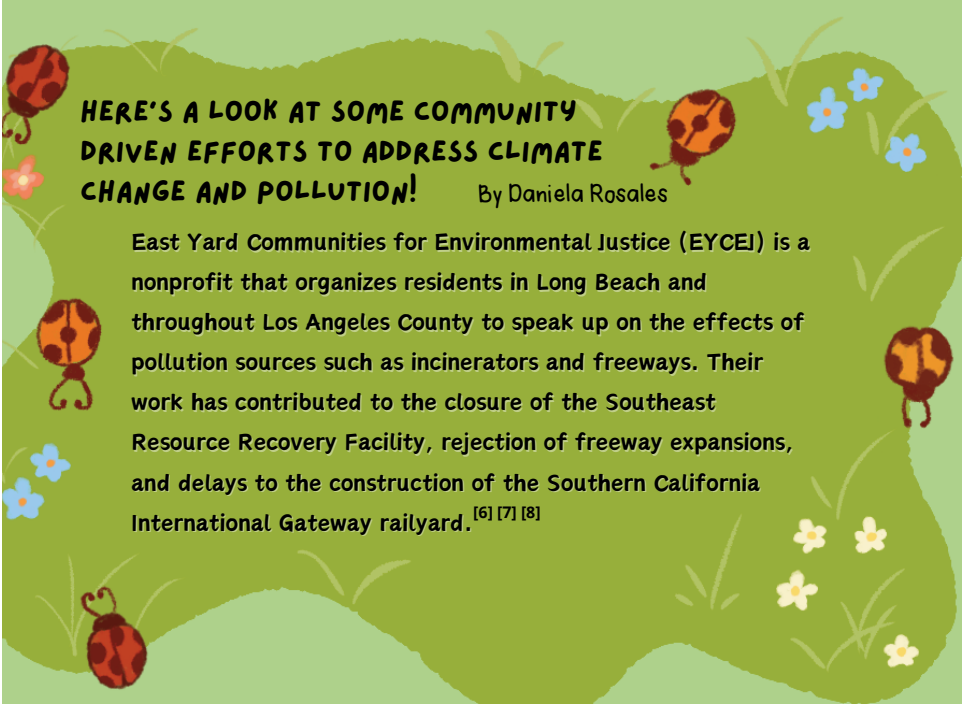
By Stephanie Yadira Lopez

The city is taking a variety of short-term actions between now and 2030, including updating the city's stormwater management and incorporating sea level rise language into citywide plans, policies, and regulations. These plans are what are used to inform future policy decisions. The city is also taking more long-term actions that are targeted for 2050 to 2100. These include expanding beach nourishment actions and elevating the streets and pathways in areas considered at-risk for flooding, such as Belmont Shore and Naples.

To reduce building energy and use clean, renewable energy by 2030, the city plans to increase use of solar power, provide access to renewably generated electricity, and implement short-term measures to reduce emissions.

To provide substantial improvements in air quality and public health, the city plans to increase monitoring of oil extraction and electrify small emitters, like outdoor power equipment.^{[4] [5]}






HERE'S A LOOK AT SOME COMMUNITY DRIVEN EFFORTS TO ADDRESS CLIMATE CHANGE AND POLLUTION!

By Daniela Rosales

East Yard Communities for Environmental Justice (EYCEJ) is a nonprofit that organizes residents in Long Beach and throughout Los Angeles County to speak up on the effects of pollution sources such as incinerators and freeways. Their work has contributed to the closure of the Southeast Resource Recovery Facility, rejection of freeway expansions, and delays to the construction of the Southern California International Gateway railyard. ^{[6] [7] [8]}



EYCEJ also engages residents in learning how to report incidents at facilities like refineries, organizes activities like communal composting and gardening, and works with residents to push the South Coast Air Quality Management District to regulate emission sources like ports and warehouses. ^{[6] [7] [8]}

Sunrise Movement Long Beach, a local chapter of the national group, creates zines to raise awareness about climate change and has organized actions like calls for green jobs. ^{[9] [10]}

There are also clubs at local schools, such as the Green Schools Campaign. In 2022, LBUSD passed a resolution responding to pressure from GSC members to transition the district away from fossil fuels. ^[11]

PROTECTING OURSELVES FROM EXTREME WEATHER

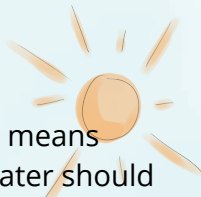
By Kayla Coulter

The Long Beach area has been my home for some time now. I adore how diverse it is, how creative people are with murals, and how it's friendly to small business owners. However, I've noticed that this area is plagued with smog, bouts of extreme heat, and pollution. These unfortunate circumstances make living and hanging out in Long Beach hard, and I'm sure I'm not the only one feeling this way.

Being able to walk from place to place is one of the things that I value the most, but the polluted air and unbearable heat make it hard for me to do so. And I've noticed that there aren't that many green-friendly places for young people to hang out in. Most spaces I've walked to have been paved down to accommodate cars. These paved areas cause poor air quality and being someone who has asthma, I'm not fond of them at all. This isn't the first time I've encountered such an issue with poor air quality, as I used to attend Cabrillo High School, which is near a refinery. One day, while my classmates and I were getting ready to practice for a cross country meet, there was a fire at the refinery that caused ash to rain down on us, making it too dangerous to run. I hope people will realize that pollution is all around us and take action, before it's too late. I'd love to go walk without feeling like I'm wearing three layers of clothing in a sauna.

Here's some tips to protect yourself from extreme weather. First, let's see how to be safer from heatwaves!





It's always a good idea to stay hydrated. This means drinking water as many times as possible. Water should really be the only fluid you should be ingesting on a daily basis. Be sure to “avoid sugary, caffeinated alcoholic drinks,” as they can dehydrate you even more. If you need a boost in hydration — especially if you sweat profusely on the daily — drinking beverages that are low in sugar but high in electrolytes with water will help you “replace the salt and minerals” that are lost from sweating so much. If you have a medical condition, such as diabetes, that keeps you from being hydrated, make sure to check in with your “doctor about how to prepare” for extreme bouts of heat. Be sure to stay as cool as possible by staying in shade, investing in a fan or air conditioning, and eating fresh fruits. ^[12] ^[13]

Now, the frigid cold weather is also not one to be taken lightly. Preparing yourself is easier when you plan ahead. This means keeping up with daily local weather reports, and bringing a coat or jacket with you at all times. It may be a sunny 70 degrees outside with a humidity of 80%, but at night, it may be incredibly cold. Just in case though, be sure to “layer your clothing” to keep yourself warm. Make sure to stock up on enough food and medical supplies to carry you through harsh events like storms. You can do this by contacting your pharmacy, and they can “prepare your prescriptions in advance,” to pick up easily. Lastly, in the event of an emergency, remember to stay safe and warm at home to prevent frostbite and your lungs from getting cold.

^[14] ^[15]



Hear from some community members on how they practice sustainability!



LUX HIGBEE

Millikan High teacher

A few sustainable practices I do in my everyday life are riding my bike to work some days. I also try to replace many single-use items such as; sponges and paper towels with alternative reusable items. Moreover, I also try to limit the amount of time I run the air conditioning and heater and find other alternatives that are more energy efficient.



Interviews by
Daniela Rosales
and Sara Ahmed



GRACE CURLEE

Poly High student

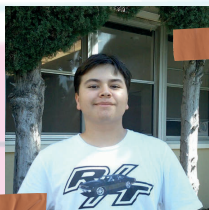
I recycle, I think it's very important, knowing what's recyclable and what's not. That's very key to recycling... say something might be recyclable, but I had food on it or something that's not recyclable. It actually contaminates the entire bin, so that has to be put in the trash, which then can be sorted later. But oftentimes it's not, as it's a lot of labor... So, I really want to make sure those products are clean and that they're fully recyclable, to decrease the risk for contamination.





TORI FRAPWELL
Millikan High teacher

I buy most of my cleaning supplies from GroveCove... Which ensures that all my dispensers are glass and the concentration bottles are made of aluminum. The packaging is eco efficient as it cuts down on plastic waste being produced. I also have reusable produce bags, as well as, reusable washable ziplock bags for any daily use activities and, mainly, for my daughter's lunch.



ADRIAN
Poly High student

Something that I do is thrift clothes instead of buying them at retail stores... it's better for the environment and more ethical. And [with] separating the recycling and the trash, I make sure that things like paper and bottles aren't mixed up.

I do a lot of art... I'm trying my best to find ways to salvage some of my art pieces and put together collages that reflect sustainability and environmental activism.



**WE WANT TO HEAR FROM YOU! USE THIS SPACE TO WRITE OR DRAW
YOUR VISION OF A MORE GREEN, SUSTAINABLE LONG BEACH!**



SEND US YOUR VISION! SCAN THE CODE TO SEND US YOUR
CREATION VIA INSTAGRAM MESSAGE FOR A CHANCE TO BE
FEATURED ON OUR SITE, OR EMAIL US AT COMAR@YLI.ORG

CHECK OUT OUR SOURCES!

- 1 ["Climate Change In Long Beach," City of Long Beach website](#)
- 2 ["Causes of Climate Change," U.S. EPA website](#)
- 3 ["CalEnviroScreen 4.0," California OEHHA website](#)
- 4 [Long Beach Climate Action Plan](#), as adopted on August 2022
- 5 [Long Beach Climate Action Plan Annual Report 2023](#)
- 6 [East Yard Communities for Environmental Justice website](#)
- 7 2022 yli interview with former EYCEJ organizer Paola De La Cruz-Perez
- 8 2024 VoiceWaves interview with EYCEJ organizer Nathan Carbajal
- 9 [Sunrise Movement Instagram page](#)
- 10 Sunrise Movement Vol. 2 of zine publication
- 11 ["Long Beach youth rally to demand LBUSD move away from fossil fuels," VoiceWaves.org](#)
- 12 ["Climate Stressors Review," published in 2018 by AECOM](#)
- 13 ["Cooling Long Beach: Urban Heat Island Reduction Strategies"](#)
- 14 ["What Should You Do During Extreme Heat?," by American Red Cross](#)
- 15 ["Stay Safe in Extreme Winter Weather," by Kansas Health System](#)

Who We Are



Youth Leadership Institute

(yli) builds communities across California where youth and their adult allies come together to create positive community change that promotes social justice and racial equity.

*For Long Beach updates, follow yli on Instagram **@yli.lbc**
For statewide updates, follow yli on Instagram **@ylinstitute***



VoiceWaves is a yli program that equips Long Beach youth with media skills to uplift stories about their communities. The youth publish stories about a variety of issues as writing, photography, videos, podcasts, and zines.

*For updates, follow VoiceWaves on Instagram **@VoiceWavesLB***

Thank you to the ClimateLB Youth Climate Action Fund Microgrant Program and Bloomberg Philanthropies for the support that made this youth zine project possible.

Meet the team



Brianna Montaña
(she, her, hers)



Daniela Rosales
(she, her, hers)



Gisselle Becerra
Murillo
(she, her, hers)



Kayla Coulter
(she, her, hers)



Sara Ahmed
(she, her, hers)





Stephanie Yadíra
Lopez
(any pronouns)



Vanessa
Rodríguez
(any pronouns)

Cover art by
Carolina Lopez-
Mazariegos
(they, them, theirs)

For more updates, follow us!

 **@VoiceWavesLB**
 **voicewaves.org**

To join VoiceWaves or
other yli programs,
scan the QR code

