

# Climate Change

Since the height of the industrial revolution, humans have been emitting pollution at unprecedented rates. Pollutants known as 'greenhouse gasses' (GHGs) are absorbed by the earth's atmosphere and function like a heating blanket. The amount of GHGs in the earth's atmosphere is directly linked to how much, and how fast, the earth warms—and how much our climate changes. Over the past several decades, the world has witnessed climate change impacts such as record-setting temperatures, catastrophic hurricanes, melting ice sheets, flooding, drought, increased forest fires, and other extreme weather.

Our ocean and coasts are literally at the 'center stage' of climate change. Climate scientists predict up to a 6-foot increase in sea level rise by 2100—which could devastate coastal communities and local economies. Scientists continue to send warnings about changing ocean chemistry caused by ocean acidification, which is devastating keystone ecosystems and groups of species, particularly shellfish. Coral reefs are bleaching due to an increase in ocean temperatures. Intensified storms are causing sewage overflows after large rain events. In order to combat the looming threats of climate change, Surfrider is proactively working with local communities to get ahead of the curve of future impacts.



## The Seas Are Rising And So Are We

Photo by Luke Shadbolt

Learn more about how you can slow  
the effects of Climate Change.

[surfrider.org](http://surfrider.org)





# Addressing Climate Change

## ADVOCACY

In addition to our public planning efforts, Surfrider specifically advocates for:

- Stronger laws and policies to protect beaches and natural shorelines.
- Climate change legislation that protects ecosystems and local economies.
- Insurance reforms to end subsidies for 'redevelopment' in areas damaged by rising seas and increased storm activity.
- Dam removal to increase sand flows to our beaches to improve coastal resiliency.
- Establishment of coastal parks and monuments that protect resources into the future.

## MITIGATION

Through Surfrider's Ocean Friendly Gardens (OFG) program we are replacing lawns and hard surfaces with native landscapes to trap carbon in the soil and reduce runoff that can impact ocean chemistry. Outside of OFG, we participate in watershed and dune restoration activities to improve coastal resiliency against intense storms and sea level rise. Finally, we support, through collaboration with partner organizations, efforts to reduce carbon and other greenhouse gas emissions and implement responsible alternative energy.

## PUBLIC PLANNING

Surfrider is working with a variety of partners to help communities plan and adapt to climate change impacts. Strengthening land-use documents via public planning is a major focus, where we:

- Identify vulnerable areas and infrastructure threatened by sea level rise.
- Advocate for: 'setting back' new development from the coast; elevating threatened structures; and relocating vulnerable infrastructure out of harm's way.
- Request that decision makers prioritize public access and recreation as beaches shrink.
- Urge governments to implement 'living shorelines' that use natural materials to build a defense against rising seas.

## OUTREACH, EDUCATION AND RESEARCH

Surfrider is committed to educating our supporters, the general public, and decision-makers about climate change impacts to our coasts and ocean. In addition to leveraging our chapter network to educate various audiences, we are engaging our Youth Clubs throughout the U.S. Recently, Surfrider partnered with Smartfin to engage surfers to use surfboard fin technology that collects oceanic data to advance our understanding of the impact of climate change on the ocean.

# How You Can Make A Difference

There are things we can do in our everyday lives to help curb climate change. Simple actions such as driving less, cutting down on household energy and buying less plastic (made from fossil fuels) can make a difference. You can help influence policy change by working with Surfrider to advocate for proactive adaptation planning that builds climate change resilient communities. Join dune grass plantings led by local chapters and install Ocean Friendly Gardens to help trap CO2 emissions while building healthy watershed and ecosystems that 'weather storms' better.



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