San Diego FORWARD

SANDAG

2021 Regional Plan
Programs and Policies

CLIMATE ADAPTATION AND RESILIENCE

Despite efforts to reduce greenhouse gas emissions, the consequences of global climate change continue to affect people around the world, public health, national and local economies, and the planet's natural environment. Communities and people across our region will have to adjust how they respond to the impacts of climate change today and become more resilient as they face future impacts.

Adaptation is the way communities and people change how they respond to the impacts of climate change. Becoming more resilient means that the communities, local and regional economies, and natural resources and recreational spaces that make our region special can endure, recover, and thrive in response to impacts of ongoing climate change. Anticipated impacts for the San Diego region include hotter and more frequent heat waves, prolonged droughts, more destructive wildfires and degraded air quality, more extreme precipitation and flooding, and rising sea levels and destructive storm surges. To advance the region's climate adaptation and resilience efforts, SANDAG works with partners to advance regional projects, offers resources to member agencies, and analyzes vulnerabilities of the transportation system, including which areas are prone to flooding and what we need to keep critical infrastructure available during an emergency.

The transportation system envisioned through the 5 Big Moves will incorporate strategies (summarized below) to improve regional resilience and better adapt to climate change impacts. For example, the transportation system must consider travel patterns and rapid mobility for evacuations and emergency response. Also, coastal infrastructure must be designed to withstand rising seas and storm surge.

How will ongoing climate change impact the San Diego region?

TEMPERATURE	WATER	SEA-LEVEL RISE	WILDFIRES	HABITAT
Increase of 5–10˚F in annual average temperature by 2100; increased frequency, intensity, and duration of heat waves	Supplies of water will be highly variable, with wetter winters, drier springs, and more frequent and severe droughts that end with periods of intense rainfall	One foot by 2050; three feet or higher by 2100	Longer and less predictable fire seasons, larger and more catastrophic fires, and a higher number of poor air quality days as a result	All of these will threaten the health of coastlines and beaches, wetlands, and plants and animals

How can the region become more resilient to the impacts of climate change?

- Consider climate change in all functions of government and across public and private sectors.
- Partner with vulnerable populations to increase equity and resilience through investments, planning, research, and education.
- Support continued climate research and data tools.
- Identify significant and sustainable funding sources to reduce climate risks, minimize harm to people, and increase spending for disaster relief.
- Maximize the use of natural lands, such as wetlands at the coast and agricultural and conservation lands, to help absorb the impacts of climate change. Wetlands can be natural buffers against rising seas and destructive storm surges. Agricultural and conservation lands, often in more rural communities, can serve as natural fire breaks against increased wildfires. Protected natural lands can also help absorb greenhouse gas emissions while providing many other societal benefits.
- Promote collaboration among federal, local, tribal, and regional government partners and across sectors to help communities better adapt to the impacts of climate change.
- Assess the vulnerability of critical infrastructure to the impacts of climate change.

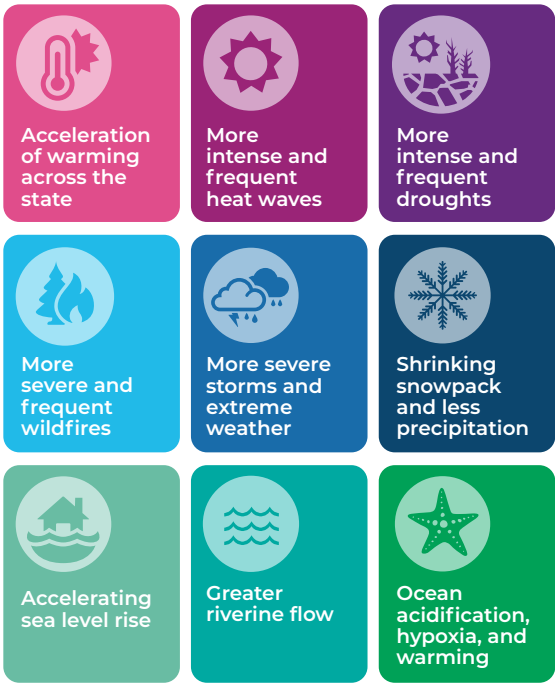
What should I know about environmental planning work in San Diego?

Past and current environmental planning work at SANDAG has contributed to the region's climate resilience. Since the 1990s, SANDAG has helped coordinate adaptation efforts to preserve shorelines in the region, including two regional beach sand replenishment projects in 2001 and 2012. The San Diego region has about 1.3 million acres of conserved land, and about 8,700 acres of that land has been preserved, with a co-benefit of absorbing greenhouse gas emissions, through the SANDAG Environmental Mitigation Program.

What could SANDAG do?

- Develop a Regional Resilience Framework to identify a regional vision, roles, and ongoing coordination across agencies, sectors, and organizations
- Prioritize regional resilience projects in communities that are more vulnerable to climate change impacts
- Serve as a resource for local agencies to prepare their communities for climate impacts
- Identify funding and financing mechanisms to address infrastructure needs in response to climate impacts
- Coordinate public outreach and education about climate impacts and preparedness

Climate impacts facing California



Resources

Fourth Climate Change Assessment, San Diego Region Report
climateassessment.ca.gov/regions/

Safeguarding California Plan: 2018 Update
resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf

SANDAG Climate Resilience Program
sandag.org/climateresilience

SANDAG Shoreline Management Program
sandag.org/shoreline