CALIFORNIA REGIONAL CLIMATE ADAPTATION INITIATIVE

Understanding Climate Change in the North Coast; What Your Organization Can Do About It

By taking action today, the North Coast can move towards a healthier, more prosperous and sustainable future.

Why address climate change? What's the threat?

Changes in global and local temperatures depend on the accumulation of carbon dioxide and other heat-trapping gases emitted from human activities into the atmosphere. The accumulation of greenhouse gases (GHGs) could be high (harming human health) or low (reducing health risks). The direction on climate impacts depends on the success of both international and local efforts to reduce GHG emissions.

Climate Resolve
Innovate. Advocate. Achieve. Together.

How will the North Coast be impacted by climate change?

THE NORTH COAST IS WARMING. By mid-century (2041-2060) the North Coast will likely warm by 3°F to 5°F above historic climatic temperatures. [1]

OUR HEALTH IS IN THE BALANCE. Longer and more frequent high-heat days will increase the number of heat-related illnesses, such as heat stroke, heat cramps, heat exhaustion, and dehydration, as well as other illnesses and premature deaths. Mortality risk for those 65 or older could increase ten-fold by the 2090s.

WE ANTICIPATE MORE FREQUENT AND SEVERE WILDFIRES. Projections indicate that increasing heat will extend wildfire season throughout the region. Overall burned area is projected to increase over 100% due in part to human activity and natural ignition sources.

FLOODING WILL BE A BIGGER PROBLEM. The projected increase in precipitation extremes, alone and in combination with the projected increase in wildfires, creates increased potential for floods, mudslides, and debris flows.

THE PACIFIC OCEAN WILL RISE. Sea levels are projected to continue rising in the future. At least 12 inches of sea level rise is projected by the mid-century, and the most extreme projections predict 8 feet of sea level rise by the end-of-the-century.

AT TIMES THERE WILL BE MORE RAIN, BUT ALWAYS LESS SNOW. Cumulative precipitation is not expected to change significantly, but will likely be delivered in more intense storms and within a shorter wet season, making it more difficult to capture runoff. Additionally, this will lead to lower than average snowpack in California mountains.

AT TIMES THERE WILL BE DROUGHT. Droughts will become more frequent and severe by raising temperatures, increasing evaporation and decreasing soil moisture.

1 All citations are from Grantham, Teodore (University of California, Berkeley). 2018. North Coast Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCC4A-2018-001. .

SOIL ARIDITY WILL WORSEN. The increase in frequency of heavy precipitation and extreme drought cycles will lead to a loss of water available in the soil for local vegetation. Under this stress water deficits might worsen by 10-19% by mid-century.

CLIMATE CHANGE POSES A THREAT TO PLANTS AND FORESTS. Potential changes to fog dynamics and increased wildfire frequency could negatively impact coastal forests and reduce tree density.

WILDLIFE POPULATIONS ARE IN DANGER. A combination of climate change and non-climate factors will create a less hospitable landscape negatively affecting population levels and local ecosystems.

COASTAL ROADS ARE VULNERABLE TO CLIMATE-FUELED EROSION. Sea level rise and storm surges will increase the vulnerabilities of coastal roads leading to a higher probability of erosion and landslides.

INDIGENOUS COMMUNITIES FACE CLIMATE-RELATED THREATS TO FOOD, CULTURAL, AND ENVIRONMENTAL RESOURCES. Climate change will lead to a reduced access to traditional foods, water, and culturally significant lands.

OCEAN ACIDIFICATION. Increasing acidification poses a risk to marine fisheries and other coastal cultural resources

WAIT — THERE'S GOOD NEWS. Within the North Coast region, county and local governments have made great progress to reduce greenhouse gas emissions and make plans to adapt to climate change. Several plans highlighted are: The Northern California Prescribed Fire Council (2009), The Northern California Prescribed Fire Training Exchange (2013), California Climate Adaptation Strategy (2009), National Cohesive Wildland Fire Management Strategy, Western Klamath Restoration Partnership, and Klamath Basin Tribal Food Security initiative.

Additionally, municipalities and tribal governments within the region are updating their plans to include actions on climate mitigation and adaptation.

TAKING ACTION

Although the North Coast will be impacted in many ways by a changing climate, the region already has specific plans in place to address those impacts with innovative solutions that will create a more livable region for everyone. Here are a few pieces of legislation, local plans, actions, and an executive order that drive climate action in California and the North Coast.

- **Senate Bill 32 (2016)** requires California Air Resources Board (CARB) to reduce green house gas emissions to 40% below 1990 levels by 2030
- **Senate Bill 100 (2018)** commits California to achieving 100% renewable energy by 2045
- **Executive Order B-55-18** commits California to achieving carbon neutrality in every sector by 2045

On the regional level, cities, counties, and tribes have identified actions and set targets to reduce GHG emissions and address climate change impacts. Highlighted actions include:

- **Karuk Tribe Climate Adaptation Plan (2019)** sets out a comprehensive plan to mitigate climate impacts on Karuk Tribe land and provides an example for how to restore healthy relationships between people and the natural world. Utilizing traditional ecological knowledge (TEK) is at the heart of the plan.
- **The North Coast Resource Partnership** is a collaboration among Northern California Tribes, counties, and diverse stakeholders. The partnership has a long term focus on addressing the needs of economically disadvantaged communities – including measurable improvements in clean drinking water, healthy ecosystems and communities.
- **Yurok Environmental Policy Act (1993)** codified by the Yurok Tribe ensures that any state or federal actions do not have any adverse effects on the environment, community, or health of the Yurok people.
- **City of Arcata Community Greenhouse Gas Emissions Inventory (2011)** is a guide from the city of Arcata that outlines climate mitigation policies and sets a baseline for success for future climate change actions.
- **Trinity County Forest and Water Resources Climate Adaptation Plan (2011)** is Trinity County's plan focused on adaptation strategies to make the County more resilient by protecting its tree coverage and water supply.

DEFEND CLIMATE PROGRESS. These climate action policies often come under attack from fossil fuel and other corporate interests. Above all else, the State's existing climate policies need to be defended.

NEXT STEPS. Here are some actions that you can take right now to prepare for the impact of climate change in the North Coast region.

- **THE MAIN PROBLEM . . . WELL, IT'S CARS AND TRUCKS.** The leading source of greenhouse gas emissions in California is from the transportation sector. How do we reduce those emissions? First, by building affordable housing near public transit, and by creating neighborhoods that promote biking, scootering and walking. Another essential climate strategy is to encourage transition to electric and hydrogen-fueled vehicles.
- **COOL DOWN NOW.** Governments that are located in inland climate zones can mandate "cool roofs." These reflective roofs can protect the health of people working or living indoors by sending heat-creating solar radiation back into space. Cool roofs also reduce energy consumption especially during the summer months.
- **WATER IS LIFE.** Take advantage of free water conservation initiatives provided by water utilities — these products not only lower water bills, they save greenhouse gas emissions and help communities become more resilient.
- **EMBRACE LOCAL FLORA.** California-friendly landscaping conserves water, saves money on utility bills, and creates a wildlife-friendly environment. Local water utilities may offer incentives.

There are many cost effective strategies that Californians can adopt around the home that can improve their quality of life and help with climate change.

- **APPLY SMARTS TO APPLIANCES.** Large appliances are often the biggest energy users in a household. Homeowners can make sure their air-conditioners and heaters are working efficiently. Taking care of these appliances can save residents money, energy, and ensure comfort on days with extreme weather. Local utilities may help you recycle old appliances, and in some cases, replace them with new, energy efficient ones.
- **EFFICIENCY PAYS DIVIDENDS.** Energy efficient light bulbs and appliances may be eligible for rebates. They lower utility bills and a household's carbon footprint.

- **ENERGY EFFICIENT HOMES.** Make use of local utility programs that can help assess energy savings opportunities for your home. PacifiCorp, Trinity Public Utilities District, PG&E, and emerging community choice utilities may offer consumer assistance programs that provide essential actions homeowners and renters can take to make homes more efficient.
- **SMART SHOPPING.** The PG&E Marketplace can show you the best and most efficient products for your home. From air purifiers to pool pumps, find appliances that will help lower your carbon footprint and save you money.
- **MAKE USE OF REBATES.** Local agencies like the Trinity Public Utilities District will provide rebates to go electric. Water heaters, heat pumps, and electric vehicle chargers can help you lower your carbon footprint.

In the face of pandemics and other threats, climate solutions can also create greater social connection and community resilience at-large.

- **ORGANIZE THE NEIGHBORHOOD.** Climate action starts when community members organize, educate their neighbors, and unite around common principles. Neighbors learn about each other's needs and priorities, about where their resources come from, about how their local economies are run. They learn the power of their collective voice and the importance of knowing their neighborhood and their neighbors.
- **GROW A CIVIC CULTURE.** Engage with people who may at first show uninterest, especially disenfranchised people. Give them the tools to engage with the political process through the lens of climate action and sustainability.
- **COOLING AND RESILIENCE CENTERS.** Spaces such as libraries, senior centers, rec centers, and pools serve as designated areas to protect and assist the public in times of need.
- **PROTECT NATURE.** Finally, the North Coast is famous for its natural beauty, which is accessible to families, outdoor enthusiasts, or anyone who wants a breath of fresh air amongst the redwoods or along the coast. Protecting this is incredibly valuable for its own sake, let alone from a climate resilience or mitigation perspective.

More about CCEDA and Climate Resolve

CCEDA is comprised of organizations actively engaged in revitalizing California's neighborhoods and its members produce results through a full range of community building strategies including real estate development-housing, retail and commercial-business assistance and lending, social services, and job training and creation. Additionally, CCEDA provides its members a clearinghouse for information and action that advances the field of community economic development.

Climate Resolve builds collaborations to champion equitable climate solutions. We connect communities, organizations and policymakers to address a global problem with local action. We inclusively develop practical initiatives that reduce climate pollution and prepare for climate impacts. Our purpose is a just and resilient future.

For more information on climate leadership in your community contact the California Community Economic Development Association:

244 San Pedro St # 412,
Los Angeles, CA 90012

cceda.com | (213) 625-0105

JULY 2020