

Climate Ready



SAN FRANCISCO KING TIDE, FEBRUARY 2011

The impacts of climate change can be seen everywhere in California. Sea level rise is threatening communities in all parts of the coast and has proved particularly damaging when combined with extreme storm events. Changing rainfall patterns have led to severe droughts that are affecting water supplies, transforming agriculture, and increasing fire risk. As temperatures rise, native wildlife is migrating to cooler climes, invasive species are making inroads into native habitats, and many species of animals and plants are facing possible extinction. The well-being of every resident, species, geographic area, and business sector of the State depends on an effective response to a changing climate.

The Coastal Conservancy has been working for more than 35 years to protect communities and natural areas along California's coast and around San Francisco Bay. Much of this work has made waterfront areas and resource lands more resistant to the impacts of climate change. In 2012, the legislature and governor empowered the Conservancy with a new authority to prepare for and mitigate the effects of climate change and take action against its causes.

In 2013 the Conservancy launched its Climate Ready program to directly target this critical work. Through three grant rounds the Conservancy has awarded \$7.3 million for 42 projects whose objectives include assessments of shoreline vulnerabilities to sea level rise, creating greener and cooler parks in inner-city neighborhoods, and improving farm management practices to conserve rainwater, improve soil health, and increase carbon sequestration. The strong responses to the grant announcements—186 proposals seeking \$40 million—demonstrate the State's unmet needs and the willingness of diverse communities to join in preparation for the considerable challenges ahead.

Sea Level Rise

The Coastal Conservancy is helping many communities assess and counter threats of sea level rise to public infrastructure and natural lands.

- The cities of **Imperial Beach, Hermosa Beach, and Benicia**; the counties of **Santa Barbara, San Mateo, Marin, and Sonoma**; communities around **Monterey and Humboldt bays**; and **San Francisco International Airport** are analyzing risks from sea level rise and identifying adaptation strategies.
- The **Los Angeles County Department of Beaches and Harbors** is preparing an adaptive management plan for protection of the County's iconic coastal beaches.
- The **Surfers Point Shoreline Resilience Project in the City of Ventura** relocated bike trails, parking lots, and other facilities away from the shoreline, restoring the beach in the process.
- The **South San Francisco Bay Salt Pond Restoration Project** is restoring 15,000 acres of wetlands that offer flood protection for many South Bay communities including parts of Silicon Valley.
- **Living shorelines** are being designed and built in **Newport, San Francisco, and Arcata bays**, using oyster beds and other natural habitats to buffer the impacts of rising seas and storms.

Urban Communities and Parks

Conservancy funding is supporting inner-city projects that are creating shady retreats for residents, building bike paths, conserving rainwater, capturing stormwater pollution, and reducing air temperatures.

- In Los Angeles County, volunteers are improving one-half mile of **Dominguez Creek in Hawthorne** with native trees and a new bike path, in **South Los Angeles** an underused alleyway is being transformed into a **green alley** that will be integrated with the life of the community, the popular **Eugene A. Obregon Park in East Los Angeles** is becoming a model **green park** with drought-tolerant vegetation and porous pavement to allow rainwater capture, and a two-acre parcel in the **Highland Park** area is being transformed into a community park with landscaping that decreases stormwater pollution and promotes groundwater infiltration.
- In the City of Los Angeles, **Heal the Bay** is performing a cost-benefit analysis of three **Living Streets** programs to guide street maintenance and utility policies: *Complete Streets* encourages low carbon methods of transportation, *Green Infrastructure* captures rainwater, and *Cool Streets* uses materials to reduce the absorption of solar heat.

Working Lands Management

The Conservancy is supporting work on farms and in forests to conserve water, protect the environment, and remove greenhouse gases from the atmosphere while adapting to climate change.

- **Resource Conservation Districts in San Luis Obispo, Santa Cruz, Alameda, Marin, and Sonoma counties** are developing management techniques to help farmers and ranchers adapt to drought, extreme storms, and other effects of a changing climate while conserving water, reducing greenhouse gas emissions, enhancing the health of soils, and improving wildlife habitats.



HIGH TIDE IN ELKHORN SLOUGH, MONTEREY COUNTY



ARMORED SHORELINE IN IMPERIAL BEACH



KING TIDE IN SAUSALITO, DECEMBER 2012



SAN FRANCISCO INTERNATIONAL AIRPORT



BAY AREA RIDGE TRAIL



LIVING REDWOODS = CARBON STORAGE



Alan Grinberg

HIGH SURF ADVISORY IN PACIFICA, JANUARY 2010

Farm Management Practices *continued*

- The **Nature Conservancy** is demonstrating how **climate-resilient agriculture** can benefit farmers and the natural environment in the **Salinas Valley** using strategies for cooperative management of water supplies and floodplain uses.
- The **Trust for Conservation Innovation**, working with the **California Rangeland Conservation Coalition**, is establishing demonstration grassland restoration plots on **grazing lands in San Mateo, Solano, and Sonoma counties** to demonstrate how native grasses can be used to make rangelands more resilient to climate change while improving habitats for wildlife.

Water Catchment & Storage

California's drought is having a severe effect on the availability of water for use by communities and farms. Underground basins can store rainwater for use in both urban and rural areas and above-ground storage can enable farmers to stop diversions of stream water in the summer when it is most critical to the survival of fish and other wildlife.

- The **Council for Watershed Health** is analyzing the feasibility of large-scale capture of rainfall and storage in underground aquifers to augment water supplies and reduce reliance on imported water in the **Los Angeles** region.
- The **Resource Conservation District of Santa Cruz County** and **UC-Santa Cruz** are studying stormwater runoff patterns and identifying potential sites to capture rainwater and store it underground.
- **Sonoma County's Gold Ridge Resource Conservation District** is designing large-scale rainwater catchment and storage systems to help farmers adapt to changing rainfall patterns and water availability.

Regional Climate Collaboratives

The effects of climate change have become readily apparent. Coordination with other sectors and jurisdictions can help individual communities and institutions assess threats and develop effective responses. The Conservancy is supporting several regional initiatives and collaborations that include a diverse group of public, private, and nonprofit organizations committed to preparing for the emerging impacts of climate change. These groups include:

- The **San Diego Regional Climate Collaborative**, a network of public agencies organized to share expertise and leverage resources
- The **Los Angeles Regional Collaborative for Climate Action and Sustainability**, a network of local and regional governments, the business community, academia, labor, and environmental and community groups
- The **Bay Area Climate and Energy Resilience Project**, a collaborative of more than 100 public, private, and nonprofit organizations
- The **Bay Area Ecosystem Climate Change Consortium**, a group of natural resource managers, scientists, and others organized to sustain the natural environment
- The **Alliance of Regional Collaboratives for Climate Adaptation**, a network of regional collaboratives from across California



RESPONDING TO A STORM AT ZUMA BEACH IN MALIBU

The Coastal Conservancy is a State agency, established in 1976, that protects and improves natural lands and waterways, helps people get to and enjoy coastal areas, and sustains local economies along California's coast. The Conservancy works along the entire length of the coast, within the watersheds of rivers and streams that extend inland from the coast, and throughout the nine-county San Francisco Bay Area. The Conservancy is non-regulatory and achieves its goals by joining forces with local communities, nonprofit organizations, other government agencies, businesses, and private landowners.

CONSERVANCY PROJECTS :

- Protect, restore, and improve natural areas and wildlife habitats
- Help people get to and enjoy the outdoors by building hiking and biking trails, acquiring and improving parks and beaches, and creating campgrounds and hostels
- Keep our waterways clean and healthy for people and wildlife
- Help communities revitalize their waterfronts
- Support floodwater management and integrate flood-control projects into the life of a community
- Conserve commercial fisheries, working farmland, and forests.

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