



CLIMATE CHANGE RESEARCH PROGRAM GRANT AWARD



SAN DIEGO STATE UNIVERSITY RESEARCH FOUNDATION

INTEGRATED LAND USE PLANNING TO SUPPORT CLIMATE RESILIENT ECOSYSTEMS AND LOCAL COMMUNITIES: FIRE RISK, WATER SUSTAINABILITY, AND BIODIVERSITY

PRINCIPAL INVESTIGATOR: **Rebecca Lewison**, Professor of Biology, Institute for Ecological Monitoring and Management

<p>PROJECT GRANT</p> <p style="font-size: 1.2em; font-weight: bold;">\$1,790,000.00</p> <p>Duration: 30 Months</p>	<p style="text-align: center; font-weight: bold;">PRIORITY RESEARCH AREAS</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Increasing Data Accessibility and Planning Support for State, Local, and Regional Climate Change Planning <input checked="" type="checkbox"/> Integrating Land Use, Conservation, and Management into California Climate Change Programs
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Landscape connectivity is a key strategy for climate-smart conservation planning and strengthens ecosystem resilience to compounding stressors such as habitat fragmentation and disturbance. Connected landscapes, which deliver essential ecosystem services to local communities, can also play an important role in climate resilient communities. This proposed research partnership builds on the state-funded "Climate Resilient Connectivity for the South Coast Ecoregion" project to examine how an integrated, ecosystem-based approach to planning for connected landscapes can support climate smart and resilient planning in southern California's ecosystems and local communities. Specifically, this research focuses on reducing wildfire risk, enhancing water sustainability, and land conservation to support sustainable ecosystems and communities in southern California.

PARTNERS:	<ul style="list-style-type: none"> ➤ City of Carlsbad ➤ Climate Science Alliance – South Coast ➤ Pala Band of Mission Indians/Intertribal Working Group ➤ San Diego Association of Governments ➤ Southern California Association of Governments
RESEARCH ACTIVITIES:	<p>Assess the opportunities for building climate resilience in communities and ecosystems by evaluating wildfire risk, patterns, and recovery in connected landscapes. Evaluate the role of connected landscapes on hydrologic regimes related to water quality, quantity, and sustainability for ecosystems and communities. Identify adaptation strategies and establish an integrated planning framework that incorporates ecological connectivity, wildfire risk, and water sustainability into land management approaches, conservation planning, and land use strategies. Deliver a suite of robust products and applications that reflect research outcomes and deploy a comprehensive outreach program that provides accessible, relevant, and data-driven products and decision-support tools to a diverse end-user community.</p>
FACILITATES GREENHOUSE GAS EMISSIONS REDUCTIONS:	<p>This research will enable and support greenhouse gas emissions reductions directly by supporting strategies to increase above and below ground carbon stocks, prevent further degradation of carbon sink ecosystems, and maintain landscape spatial heterogeneity and diversity.</p>
BENEFITS DISADVANTAGED AND LOW INCOME COMMUNITIES:	<p>Research will explicitly consider the multiple challenges that low-income and disadvantaged communities face from climate change with respect to fire risk, water sustainability, and land use issues to ensure that support and resources are available to safeguard those communities. Resulting products will increase accessibility of information about low-income and disadvantaged communities, and support local and regional climate change planning, policy development, and implementation.</p>
ENGAGEMENT ACTIVITIES	<p>Targeted engagement activities will leverage partners' networks, facilitating partner and stakeholder participation, communication and feedback throughout the research process. Specific activities include convening and facilitating workshops and collaborative planning sessions, working with stakeholders to enhance research products and promote uptake into climate action, leveraging existing robust relationships with diverse professionals, institutions, and community leadership to capitalize on affiliations and trust among stakeholders, and using a "network of networks" framework to successfully engage with these stakeholders.</p>