

EXECUTIVE SUMMARY  
CREATING A LANDSCAPE OF OPPORTUNITY

SANTA BARBARA COUNTY  
CONSERVATION BLUEPRINT



WATER RESOURCES



FLORA AND FAUNA



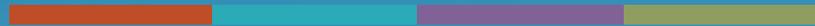
AG AND RANCLANDS



COMMUNITY AND THE LAND

*"The Blueprint is the first impartial, complete, up-to-date source of data that has been fully vetted and verified and made available to everyone, not just a single interest group. From urban areas to watersheds, public lands, rangelands, and agriculture, the Blueprint describes in understandable terms the resources of Santa Barbara County — fully descriptive and not prescriptive. It is my hope that when future decisions are made that affect all of us in Santa Barbara County, we will make sound, informed evaluations based on this common information."*

*- Pamela Doiron, Rancher, The Spanish Ranch*



## THANK YOU TO THE PROJECT FUNDERS

The Blueprint is funded by a consortium of foundations and donors through the Land Trust and the Santa Barbara Foundation LEAF Initiative:

Santa Barbara Foundation

California Coastal Conservancy

Hollis Norris Endowed Fund

Jack & Judy Stapelmann Fund

Walter J. and Holly O. Thomson Fund

James S. Bower Foundation  
Brittingham Family Foundation  
Jack & Gretchen Norqual

Hutton Parker Foundation  
Richard L. and Maryan S. Schall Fund  
Deckers Outdoor Brands

Neil Dipaola/Mesa Lane Partners  
Erik Gregersen  
Julie L. Capritto Fund

Campbell Family Fund  
Peter & Martha Karoff  
Nancy B. Schlosser



#### SPECIAL THANKS TO

Bill Dewey, Bruce Reitherman, Elliot Lowndes, Linda Blue and Stuart Wilson for many of the professional shots used in the report. All photographs were taken within Santa Barbara County.

## EXECUTIVE SUMMARY

In an era of population growth, global markets, and climate change, Santa Barbara County's citizens must together address the question of how to conserve the landscapes and biodiversity that make this County special, while also making it an economically feasible and livable place for local residents. Ensuring the ongoing viability of these landscapes and the benefits they provide requires shared tools, language, and dialogue. This is why the Land Trust for Santa Barbara County, the Santa Barbara Foundation LEAF (Landscapes, Ecosystems, Agriculture, and Food Systems) Initiative, and the Cachuma Resource Conservation District came together to develop the Santa Barbara County Conservation Blueprint (Blueprint).

Nearly two years of design, research, data collection, interviews, focus groups, and public input meetings went into the creation of this report and its companion interactive online Atlas and web resources. The Blueprint report focuses exclusively on the land base and terrestrial natural resources, and is broken into four main chapters (summarized on the following pages). Each chapter focuses on a major land conservation theme but also addresses climate impacts, interconnections to other themes, community values, elements of resilience and stories of multi-benefit solutions to resource challenges. The full report contains dozens of maps on these themes and points readers to explore more of the nearly 300 publicly available, science-based datasets in the online Atlas.

**Together, the Blueprint report and online Atlas offer a first step toward a common understanding of Santa Barbara County's current environmental conditions, the impacts of human interaction with the land, and the conscious tradeoffs required to create a landscape of opportunity for generations to come.**

# STEERING COMMITTEE



\* **Anne Coates**, Former Executive Director, Cachuma Resource Conservation District

**Frank Davis**, Professor, Bren School of Environmental Science and Management

**Pamela Doiron**, Rancher, The Spanish Ranch

**Kim Kimbell**, Attorney / Partner, Allen & Kimbell, LLP

\* **Sharyn Main**, Senior Director of Community Investments /  
Director, LEAF Initiative, Santa Barbara Foundation

**Andy Mills**, Cattle Rancher and State Director, Santa Barbara County Cattlemen's  
Association, Stewardship Director, California Rangeland Trust

\* **Anna Olsen**, Executive Director, Cachuma Resource Conservation District

\* **Greg Parker**, Principal, Investec Real Estate Companies and President  
Board of Trustees of The Land Trust for Santa Barbara County

**Matt Roberts**, Rancher and Director of Parks and Recreation, City of Carpinteria

**Randy Sharer**, Farmer and Owner, Sharer Brothers Farms

**Paul Van Leer**, Farmer and Ranch Manager, Las Varas Ranch

**Steve Windhager**, Executive Director, Santa Barbara Botanic Garden

\* **Chet Work**, Executive Director, The Land Trust for Santa Barbara County

\* Executive Team Members

## PROJECT TEAM

### Ag Innovations - Project Design and Management

Brooking Gatewood • Joseph McIntyre

### Conservation Biology Institute - GIS Spatial Analysis and Community Engagement

John Gallo • Dustin Pearce • Annie Prisbrey

## SANTA BARBARA CONSERVATION BLUEPRINT PARTNERS

The **Cachuma Resource Conservation District** was founded in 1944 – one of the first RCDs in California. Their mission is to promote land stewardship ethics that result in long-term, sustainable use of natural resources while protecting and enhancing the environment. The Conservation Blueprint helps the CRCD identify areas for voluntary conservation efforts and ascertain community needs. For more information, visit:

► [www.rcdsantabarbara.org](http://www.rcdsantabarbara.org)



The **Santa Barbara Foundation** is committed to building philanthropy, strengthening the nonprofit sector and addressing community problems. The Santa Barbara Foundation LEAF Initiative supports strategies to improve and protect landscapes, ecosystems, agriculture and food systems and works to connect people, ideas and resources for collaborative problem-solving. The Conservation Blueprint is a key element of LEAF as a platform for dialogue and robust conversations about conservation, resource protection and future growth and development in the County. For more information, visit:

► [www.sbfoundation.org/leaf](http://www.sbfoundation.org/leaf)



The **Land Trust for Santa Barbara County** works to preserve and enhance our county's natural open spaces and agricultural heritage for present and future generations. Since its inception in 1985 the Land Trust has helped to preserve over 25,000 acres of natural resource and agricultural land. The Conservation Blueprint presents an opportunity to incorporate sound science and community opinion into the Land Trust's strategic efforts, allowing it to be more focused and effective on behalf of the community and landowners it serves. For more information, visit:

► [www.sblandtrust.org](http://www.sblandtrust.org)



## MOVING TOWARD A LANDSCAPE OF OPPORTUNITY

At its heart, the Santa Barbara County Conservation Blueprint is a first step to creating what we, the project partners, like to call a landscape of opportunity – a healthy and resilient landscape where residents and visitors can enjoy both the economic and environmental benefits that our County is capable of providing.

Over the course of the two years spent developing the Blueprint report and Atlas, we have identified at least four overriding themes for creating this landscape of opportunity:

**Emphasizing landscape connectivity.** Habitat fragmentation is a significant threat to the long-term viability of both local agriculture and habitat for flora and fauna. The impact of habitat loss on plants, animals, and other resources and land uses is significantly greater when it leads to fragmentation and isolated patches of habitat. A focus on preserving the economic and biological integrity of land by avoiding parcelization of wildlands and farmlands is a critical aspect of creating a landscape of opportunity.

**A multi-benefit mindset.** Opportunities are amplified when we seek and support projects and activities on the landscape that provide multiple beneficial uses to people, flora and fauna, shared water resources, and long-term environmental health. With relatively small adjustments in our practices, we can maintain high economic production on working landscapes and support healthy environments for the animals and plants that share this county. The following pages highlight many examples of these kinds of win-win approaches, and we hope that the Blueprint is a catalyst for more multi-benefit actions in the County.

**Valuing ecosystem services.** For most of modern history, humans have taken for granted the abundance of what nature provides. Yet these 'ecosystem services' are the very stuff of life – the capacity of the landscape to provide drinkable water, clean air, shade, flora and fauna habitat, fertile soils, etc. Today, a deeper understanding of the value of nature's goods and services has emerged, and with it, a new way of thinking about our relationship with the land. Protecting and enhancing the quality and quantity of the services Santa Barbara County's ecosystems provide will become more and more important in the years to come.

**Community commitment.** Perhaps the single most essential element we recognize in our landscape of opportunity is genuine community commitment to conserving the long-term viability and integrity of working and natural lands in the County. Practically, this may include a commitment to higher density development to keep larger swaths of working lands intact, or support for the adaptability of agricultural operations so they may remain economically resilient. We need to be vigilantly visionary: our efforts today to conserve a healthy landscape for generations to come will help create the ongoing resiliency needed to respond to challenges in an increasingly uncertain world.

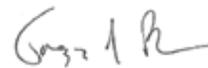
We believe that conservation is not about putting lands into stasis, but about creating conditions that support resilient landscapes that can evolve as both economic and natural conditions change. We view conservation as an active pursuit, and the Blueprint report and Atlas as tools to better understand our interactions with the local landscape, and what they may mean for the shared future of all County inhabitants. The Blueprint is not intended to be a compendium of all the natural resource or land condition knowledge in the County but it does offer a broad introduction. The references cited within this report will allow interested readers to delve deeper into any aspect of the Blueprint that interests them. It is our deepest hope that these tools be used throughout the County for years to come to support more informed dialogue and problem-solving on how to simultaneously meet the pressing needs of today and tomorrow, while preserving the integrity of working and natural lands in the County well into the future.



**Sharyn Main,**  
Senior Director of Community  
Investments and Director of the LEAF  
Initiative, Santa Barbara Foundation



**Anna Olsen,**  
Executive Director,  
The Cachuma Resource  
Conservation District



**Greg Parker,**  
President of the Board of  
Trustees, The Land Trust for  
Santa Barbara County



**Chet Work,**  
Executive Director,  
The Land Trust for Santa  
Barbara County

## INTRODUCTION

Santa Barbara County is a special place with unmatched scenery, a remarkable diversity of plants and animals, and productive ranching and agricultural lands – all of which contribute to Santa Barbara’s economy and quality of life. With a Mediterranean climate, a wide range of soil types and geography, the County is home to a wide diversity of species and landscapes as well as a growing human population competing for space. This combination makes Santa Barbara County part of a top 35 global **biodiversity hotspot**.

Historic water limitations, a strong agricultural and ranching tradition, and strong **conservation** values have contributed to the preservation of more open landscape than many other California counties. Over half of the land area in the County is under government ownership or otherwise protected, with the majority of the upper **watershed** area in the Los Padres National Forest, including the Dick Smith and San Rafael Wilderness Areas. Despite this strong history of land protection, threats to the **open spaces** and **wildlands** that make Santa Barbara unique are on the rise. A warming climate and associated rising sea level, increasing rainfall variability, population growth, and conversion of **working lands** to subdivisions and rural development all raise questions about the future of the working and public landscapes that residents and visitors enjoy today.

To ensure the ongoing viability of Santa Barbara’s landscapes, economy, and quality of life for current and future generations, tools to better understand the terrestrial landscape will be needed. In addition, the **community** must begin to think, talk, and work together on how to address pressures facing the County to create a more **resilient** and adaptable future for all. This is why the Land Trust for Santa Barbara

County, the Santa Barbara Foundation LEAF (Landscapes, Ecosystems, Agriculture, and Food Systems) Initiative, and the Cachuma Resource Conservation District came together to develop the Santa Barbara County Conservation Blueprint (Blueprint).

**The purpose of the Blueprint is to provide a common language and platform for publicly available data to support in-depth conversations and informed decisions about the Santa Barbara County landscape.**

Nearly two years of design, research, data collection, interviews, focus groups, and public input meetings went into the creation of this report and its companion online interactive Atlas and web resources. In this process, two striking trends across the County stood out:

- Open space and agricultural and rangelands are under increasing pressure for development and fragmentation.
- People born and raised here are struggling to continue to live and work here.

See additional key learnings and trends summarized in the following pages. In an era of population growth, global markets, and **climate change**, Santa Barbara County’s citizens must together grapple with the question of how to manage the landscapes and biodiversity that make Santa Barbara County special, while also making it an economically viable and livable place for local residents. **The Blueprint offers a first step toward a common understanding of current environmental and social conditions in Santa Barbara County and the conscious tradeoffs required to create a landscape of opportunity for generations to come.**

- Terms in **bold blue** in this report are defined in the Blueprint Glossary, available in the full report and online at <http://www.sbcblueprint.net>.



The Blueprint focuses exclusively on the land base and terrestrial natural resources. Ocean resources, though equally significant in this County, are only covered in the context of shoreline access and climate impacts. This report is broken into four main chapters. The first two chapters focus on the physical and biological features of the landscape with chapters on **Water Resources** and **Flora and Fauna** in Santa Barbara County. Unlike conservation assessments that focus only on the value of landscapes for plants and animal species, the Blueprint is founded on the belief that human interaction with the land is an essential component to understand and include in effective conservation. To this end, the third chapter focuses on **Agricultural and Ranch Lands**, and the final **Community and the Land** chapter delves into how the community lives, works, and plays on the land. Each chapter also addresses **Climate Impacts**, interconnections with other theme areas, common values around each theme, and stories of win-win, or **multi-benefit** solutions to shared resource challenges. The Blueprint ends with a conclusion and appendices for more information.

Finally, there are invitations throughout the report to visit the online Atlas (<http://sbcblueprint.databasin.org>), a mapping portal comprised of nearly 300 publicly available, science-based datasets distilled into a few dozen interactive maps based on five theme areas:



Through the Blueprint, users can view, retrieve, and analyze additional information about land use and resources in Santa Barbara County. Data for the Blueprint comes from many different sources including federal, state, and local agencies, universities, non-governmental organizations, and other credible public data sources throughout California. **This is a tool to understand general land use patterns. Detail that might disclose sensitive information on individual parcels has been removed.** The Atlas is designed to provide a transparent, accessible, interactive community resource to explore the status and trends of County natural resources and land use.

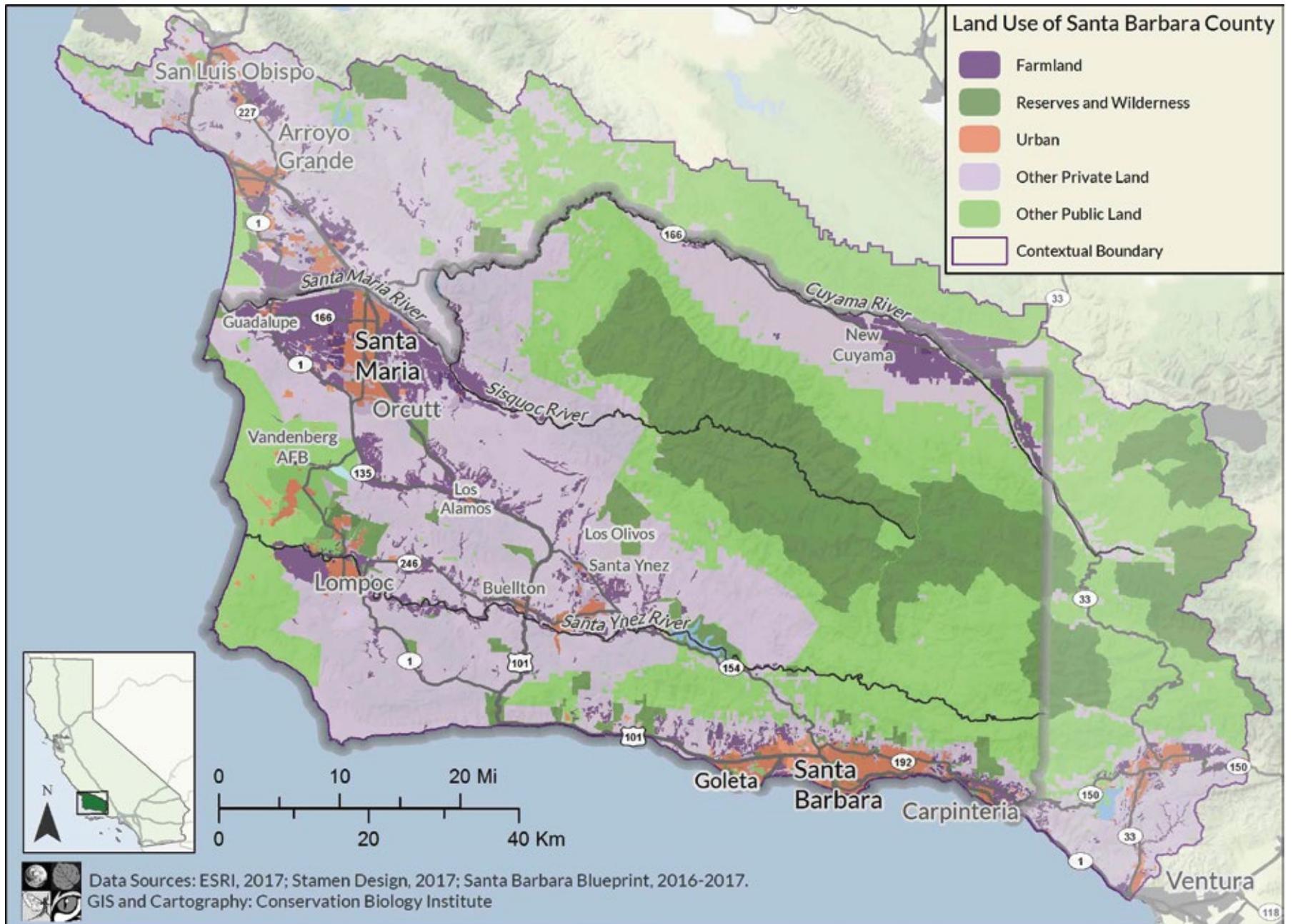
## Project Partners and Origin

The Blueprint has been developed through a partnership between the Land Trust for Santa Barbara County, the Santa Barbara Foundation LEAF Initiative, and the Cachuma Resource Conservation District. These partners came together to explore their shared interest in having a tool to support their strategic planning needs. Land Trust for Santa Barbara aims to use the Blueprint and Atlas data to identify and develop conservation priorities in its upcoming strategic plan. The Cachuma Resource Conservation District will also use the Blueprint to inform its strategic plan and voluntary habitat **restoration** priority areas. For Santa Barbara Foundation, the project will inform priorities and dialogue for the LEAF Initiative and serve as a platform for cross-sector dialogue and problem solving for a range of issues – conservation, housing, economic development, and equity.

The partners recognized early on that by pooling resources and collaborating with a broader set of stakeholders in the development of the tool, they could not only enhance their individual planning processes, but also provide a valuable public resource that could build shared understanding of the landscape and accelerate the pace of voluntary conservation of Santa Barbara County’s farmlands and natural resources. From this recognition, six core project goals emerged:

- Create a compilation of the County's resources, conservation opportunities, and a range of community values.
- Provide a shared public platform (website, maps, reports, tools) to inform conversations about the future of the landscape.
- Understand what a diverse cross section of community members truly believe is important to conserve.
- Inspire greater collaboration, trust, and improved working relationships among conservation practitioners, farmers, ranchers, landowners, housing advocates and conservation funders.
- Attract sufficient funding to accelerate the pace of voluntary conservation with landowners and managers who want to protect, restore, and steward their properties.
- Inform the Santa Barbara Foundation's LEAF Initiative, and new strategic plans for Cachuma Resource Conservation District (RCD) and the Land Trust for Santa Barbara County.

## Land Use in Santa Barbara County



## The Blueprint Development Process

The Blueprint development process was guided by a 12-member Steering Committee representing agriculture, conservation, resource management, and the natural sciences. Its executive team consisted of leaders from the sponsoring organizations. Project delivery and community engagement were managed by Ag Innovations, a nonprofit organization focused on promoting collaboration and public engagement around issues of agriculture and natural resources. Geographic Information Systems (GIS) data development and management were provided by the Conservation Biology Institute, a nonprofit research group specializing in providing GIS and remote sensing data, research, and scientific expertise to support conservation. The content for the Atlas and the Blueprint report was developed with the support of community leaders and topic experts and vetted with the support of local stakeholders. Input was provided via one-on-one interviews with experts and thought leaders within the County on each theme, as well as small group meetings, focus groups, an online survey, and public input meetings. More information on public engagement and data collection methodology can be found in the Appendices of the full report.

### What the Blueprint is

The Blueprint **is** meant to be a catalyst for more informed conversation about the community's future. It includes

- a written report,
- an online mapping tool, and
- publicly available data about resources and land uses in Santa Barbara County.

The Blueprint **is** a resource for voluntary conservation and management throughout the County, focused on five major resource themes: Water Resources, Flora and Fauna, Agricultural and Ranch Lands, Community and the Land, and Climate.

The Blueprint **is** community informed: It entails a community input process to understand what members of the public value within the County.

## Climate Change

Climate change is a unifying threat to every species and resident of Santa Barbara County. With population centers spread along the 135 mile coastline, broad economic dependence on agriculture and a reliance on highly variable and local water resources, the region's human population will be tested in its ability to adapt to changing climate and sea level rise. With changes in the climate likely happening at faster rates than historical trends, natural communities and wildlife are expected to become more stressed and may be unable to adapt or move to suitable habitat.

Climate change, as defined in this report, is the expected departure from normal variability in climate factors such as precipitation and temperature. Since the early 1900s there has been a marked increase in annual maximum and minimum temperatures across the western United States, and in California. This increase has been shown to be true as well for the southern coast of California and for Santa Barbara County. Depending on the geographic scale, studies of historic climate

### What the Blueprint is not

The Blueprint is **not** a prioritization map that identifies individual properties for conservation. The Blueprint is **not** intended to be a compendium of natural history or agricultural information. It is only an introduction to the broad issues of land management for the interested public.

The Blueprint is **not** a government-led process.

- It is **not** a regulatory effort.
- The Blueprint is **not** a tool for mandatory conservation, management, or regulation.

The Blueprint is **not** an advocacy process.

- It is not about persuading public opinion on a particular topic.

It is **not** a closed-door process.

- Data will be accessible to everyone and community input is part of its development.

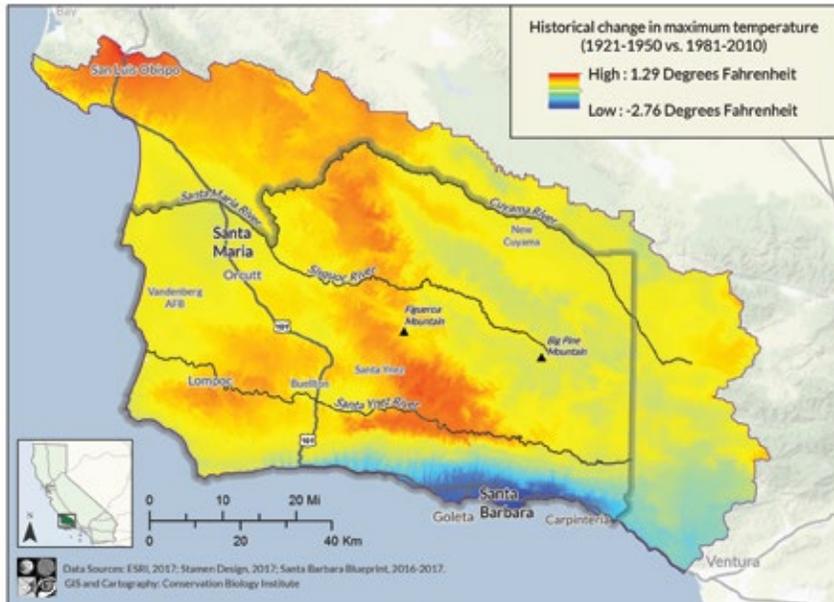
change show an increase in annual maximum temperature of approximately 0.2 degrees Fahrenheit per decade.

As a community, citizens of Santa Barbara County need to plan for this coming change. In the coastal urban areas of the County this may mean infrastructure improvements, levees, sea walls, causeways, or regulations on bluff-top construction or building in low-lying areas. Or it may mean strategic retreat from areas where climate impacts may be the largest and infrastructure improvements are not suitable. In many cases, existing development lies close to areas vulnerable to coastal hazards such as sea level rise, coastal erosion, flooding, and storms. Coastal habitats such as beaches, bluffs, and wetlands will increasingly be caught in the coastal squeeze where they are constrained from migrating inland, putting both infrastructure and natural resources at risk. All of the south coast communities are actively planning at multiple scales to deal with the effects of rising sea level and changing climate. The County has many active studies and/or plans in place, including the County's Sea Level Rise and Coastal Hazards Vulnerability Assessment, the Santa Barbara Area Coastal Ecosystem Vulnerability Assessment report, the City of Goleta

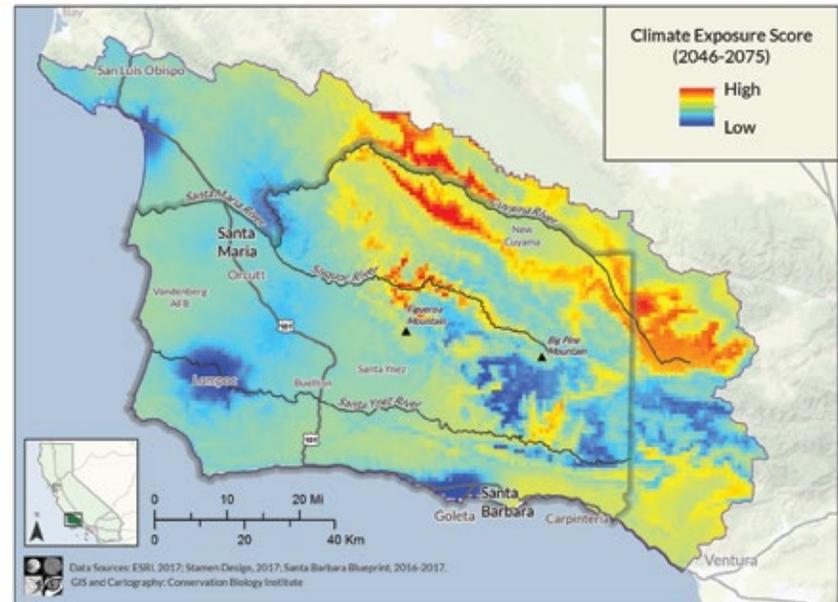
Draft Coastal Hazards Vulnerability and Fiscal Impact Report, and the 2015 Goleta Slough Area Sea Level Rise and Management Plan.

Climate change is not just a coastal or infrastructure issue. The County's natural resources and services like soil, agricultural productivity, water filtration, pollination, and many others will be impacted. In many ways Santa Barbara County is fortunate because our natural and working lands still have the ability to adjust to changes in climate. The County's unique topography, proximity to the ocean, and the huge range of aspects and elevations associated with the region's mountain ranges mean that the County will have varied impacts as the climate shifts. Some areas of the County will experience increases in temperature, while others may see no change or even decreases in temperature. Across the globe, communities with a more homogeneous landscapes or without the proximity to the ocean can expect a much more uniform change across the landscape, which may devastate natural communities and agricultural economies. Planning for a shifting climate in Santa Barbara County means we need consider those areas that will be most resilient to changes in precipitation or temperature as refuge for flora, fauna, and agricultural uses.

### Historic Changes in Maximum Temperature



### Projected Climate Exposure Score



Recognizing that movement corridors for plants and animals will become critical as precipitation and temperatures change and that areas for water storage and groundwater recharge will become vital for our community, we should develop ways to reward landowners for maintaining resilient landscapes and adaptation processes that benefit the community.

Managing the risks of climate change involves understanding potential future conditions. The full Blueprint report provides short term projections of climate changes into mid-century, mostly at a county level. Impacts specific to water, flora and fauna, agriculture, and community interests are discussed in more detail in their respective chapters.

At this time, under all climate change scenarios currently being used by the state of California for resource planning, Santa Barbara County is likely to expect: a doubling of extremely hot days; an increase in average maximum temperatures of 1.6 - 3.1 degrees Fahrenheit by 2045; sea level rise of 0.7-1.2 feet by 2050; and higher variability in precipitation patterns ranging from an increase in precipitation of 20.8% to a decrease in precipitation of 18% by 2045.

The ranges of potential temperature increases, evaporative demand, precipitation fluctuations, and sea level rise reflect the differences in the outputs of multiple predictive models. Longer term projections can be explored online at the Climate Console website (<http://climateconsole.org/>) and on the Cal-Adapt website (<http://cal-adapt.org/>).

## Synthesizing multiple maps and data sets with the Environmental Evaluation Modeling System (EEMS)

One of the core challenges for the Blueprint project was to synthesize and integrate the hundreds of individual maps we collected to 1) help clarify and communicate the conservation trends and challenges in the County and 2) assist with the development of strategies to support a landscape of opportunity. Comparing or overlaying two or three resource maps is relatively simple using the online Atlas. But to get a full sense of the spatial distribution of all the information that might

characterize a thematic area like agriculture, one would need to overlay a half dozen or more resource maps. As an example, if one wanted to understand the water resources of the County it would be relatively easy to view a map of the streams, rivers reservoirs, and wetlands. But that would not be the whole story. Understanding the issues around water in this County requires knowledge of groundwater aquifers, recharge rates, precipitation patterns and trends, watershed health, and water quality. Overlapping all of these data layers could create a very confusing map. The EEMS approach offers a solution.

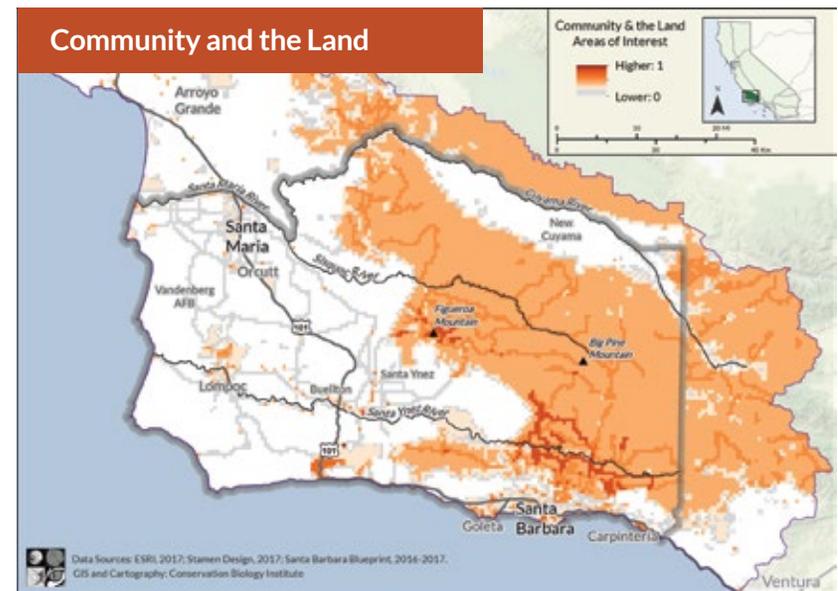
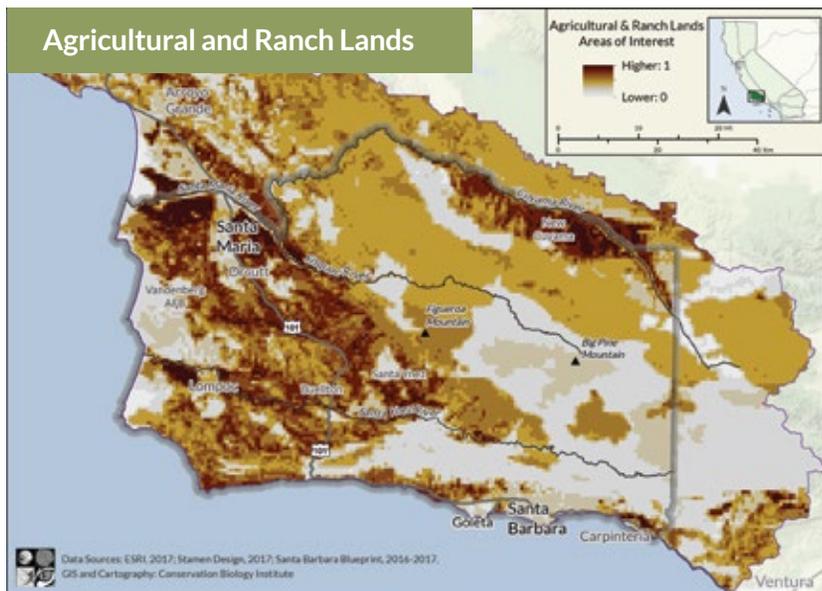
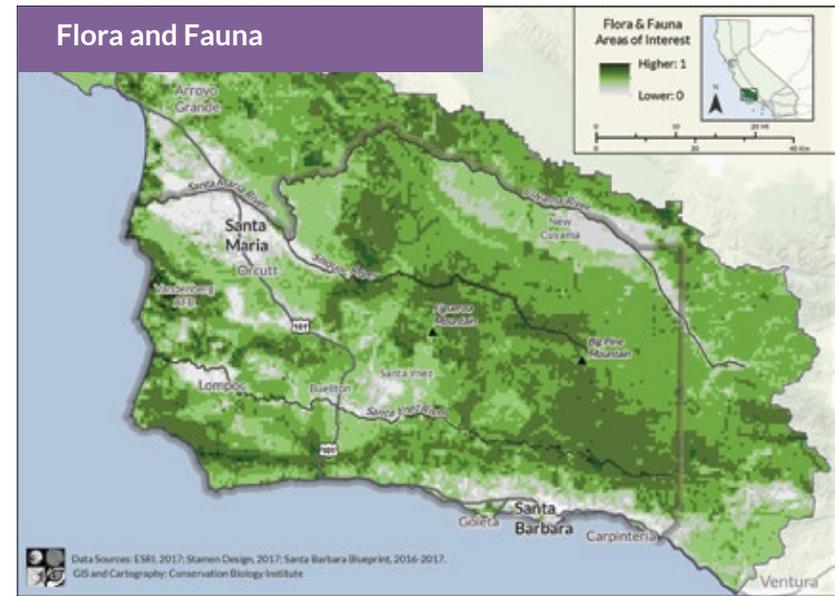
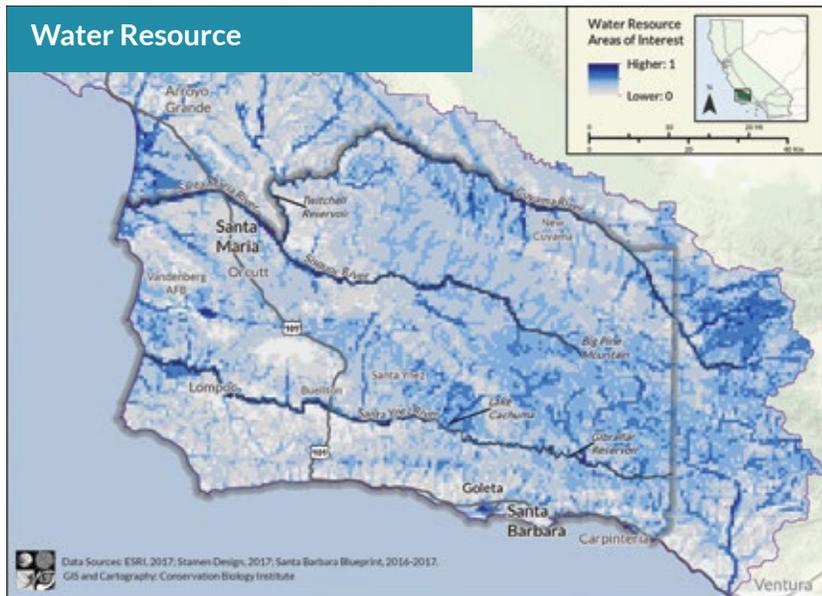
EEMS is a tool that allows a user to combine multiple layers of spatial data into useful synthesis maps. The models draw on priorities gleaned from the Blueprint expert and community input processes, and includes transparent data sources and descriptive (not prescriptive) multi-benefit maps. These multi-benefit maps compare different types of data in a logical and transparent way (i.e., users can “look under the hood” to see how the data were processed).

This EEMS approach was used to create a synthesis map for each theme in this report (featured in each chapter). The four theme-based EEMS maps were then combined to create the high-level “multi-benefit map”. This ‘meta-map’ offers a quick snapshot of places in the county where **areas of interest** overlap from two or more of the major themes (agriculture, water, flora and fauna and community). These maps, together with the additional topical maps featured throughout the report, are meant to support meaningful visual insights about resources in the Santa Barbara County landscape, and to stimulate conversations about key issues. [Visit the online Atlas](#) to interact with these maps by zooming, panning, clicking other layers on and off, and using the swiper tool to quickly compare data for a place. Users can also create their own map with the hundreds of additional datasets housed there. Watch a brief video tutorial here: [https://youtu.be/dIB\\_r-2Pngo](https://youtu.be/dIB_r-2Pngo), and explore more in the ‘About’ section of the online Atlas.

► *The Atlas:* <https://sbcblueprint.databasin.org>

# PREVIEW OF EEMS MAPS ACROSS RESOURCE AREAS

These synthesis EEMS maps highlight areas of interest for the four primary resource themes by overlaying a variety of data inputs from within each theme. These and dozens of additional maps featured throughout the full report are meant to support meaningful visual insights about resources in the Santa Barbara County landscape, and to stimulate conversations about key issues. You can learn more about these maps in the full report and with the interactive EEMS Explorer on the Atlas website.



## KEY LEARNINGS & TRENDS

**After synthesizing map, interview, and public input data across theme areas, a few key insights rise to the surface:**

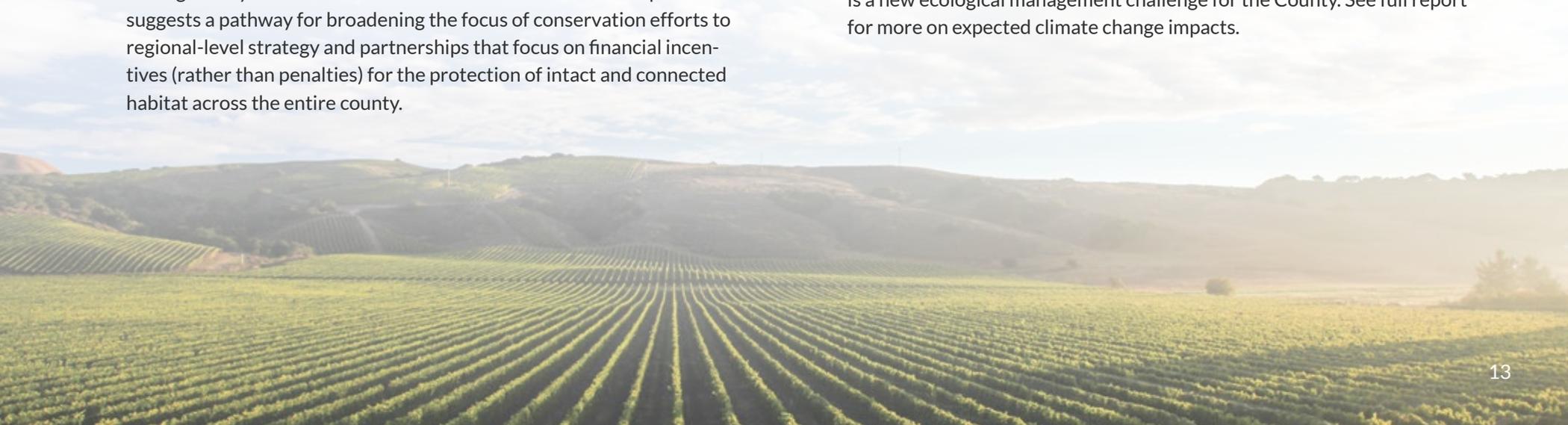
**Keeping agricultural lands and rangelands in production is one of the most effective long-term conservation measures.** Rangelands are among the most threatened landscapes in the County and across California. They are also among the most beloved and important for species conservation, **ecosystem service** benefits, and open space views for residents and visitors alike. Working with those who work the land to understand their needs, finding ways to support their operations, and incentivizing habitat creation as part of sustaining these working landscapes will be key to more effective and collaborative conservation of agricultural and natural heritage in the County. This is a core challenge for the community to work through together.

**There is a need for thinking beyond single species in conservation priorities.** While the species-by-species approach to conservation has been the predominant methodology for protecting **threatened and endangered species**, many on-the-ground conservation efforts show unintended impacts that can actually hinder conservation goals. For example, landowners who are willing to engage in conservation practices that help restore native habitat are actually deterred by the potential regulatory burden associated with native habitat. Local input suggests a pathway for broadening the focus of conservation efforts to regional-level strategy and partnerships that focus on financial incentives (rather than penalties) for the protection of intact and connected habitat across the entire county.

**The conservation economy is a central part of the Santa Barbara economy.** At least 12% (likely higher) of local jobs are held in restoration, conservation, recreation, and tourism. Another 10% of jobs are connected with local agriculture, which helps to preserve natural and working landscapes with many ecosystem service benefits. The land itself contributes tremendous economic benefit when the value of these parts of the economy and of ecosystem services are taken into account. Preserving the health and beauty of the County's landscapes is an economic imperative.

**Reconciling development and conservation needs will be critical moving forward.** This report summarizes current development pressures in the County for agricultural and urban lands, key impacts (both intentional and unintentional) of regulations and zoning restrictions, and interconnections between these trends. For example, restrictions placed in one part of the County impact commuting and housing patterns in other parts of the County. A common quip in the County is that "people hate two things: density and sprawl," yet the County must address a projected influx of new residents. Such tradeoffs are an important part of the story, and starting points for the tough discussions ahead.

**Preparing and managing for climate change will build resiliency.** Even the more conservative climate change models suggest wide-ranging impacts caused by changes in season timing and temperatures, precipitation, and potential sea level rise. For example, preparing the landscapes to offer refuge to **native species** migrating in response to climate change is a new ecological management challenge for the County. See full report for more on expected climate change impacts.



# WATER



Water is life – when our water is threatened, our way of life and the viability of the landscapes and ecosystems are threatened as well.





## WATER RESOURCES

In Santa Barbara County, as in most of California, fresh water supply, land use, and population are intimately tied. County leaders have worked hard to ensure adequate supplies of water through infrastructure development, advances in efficiency, and changes in patterns of water use. Today, the pressing question is how to ensure water reliability for urban, agricultural, and environmental needs under conditions of increasing variability of precipitation. Historically groundwater served as a buffer when surface water supplies were limited. This has led, in places, to aquifers becoming overdrawn. California's Sustainable Groundwater Management Act requires the region to find ways to bring its use of groundwater into balance, bringing new attention to the role of working and natural lands in recharging precious local water supplies.

Often, the connection between reliable water and conservation is complex and unfolds over many years. Take the case of drought and ranch land conversion: In long droughts like the one Santa Barbara has just experienced, rangelands, which are reliant on precipitation for grasses as animal feed, cannot support as many cattle; ranchers are often forced to sell livestock or convert land to other crops in order to make ends meet. The loss of ranch lands is a significant trend in the County, and troublesome for both the ranching community and for conservation minded residents concerned about the effect of fragmenting these large rangelands. Water is life for people and all the plants and animals who call the County home; understanding the region's water resources is critical to a positive future for Santa Barbara County.

## KEY TAKEAWAYS TO WATER RESOURCE RESILIENCE

Potential resilience strategies for water resources include any processes that will reduce demand or increase supply for both humans and the County's flora and fauna, such as:

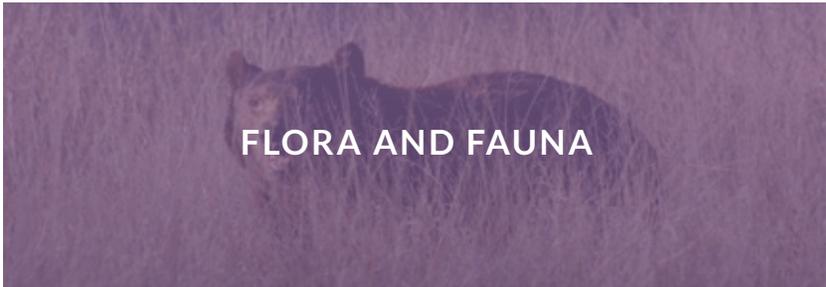
- Increasing water use efficiency for agricultural and urban users
  - Increasing ground and surface water storage through storm-water capture, off treatment, percolation/injection, and other locally viable options
  - Decreasing in-stream extractive uses of water (where groundwater or other supplies are available) in order to balance the need for in-stream flows to support habitat
  - Increasing drought-resilient water supplies throughout the County including wastewater treatment and desalination
- Visit [www.sbcblueprint.net](http://www.sbcblueprint.net) for more resources, project highlights, or to share your ideas!

# FLORA AND FAUNA



Creative approaches to support the thriving of ecosystems, biodiversity, and human settlement in the County will be more and more essential as competition for space increases in the years to come.





## FLORA AND FAUNA

Santa Barbara County is home to an incredible array of species, sensitive and threatened habitats, and ecological transition zones. The County sits at a unique confluence of four different ecoregions: Southern California Coast, Southern California Mountains and Valleys, Central California Coast, and Central Valley Coast Ranges. These diverse landscapes support an equally diverse range of plants and animals, making the County part of one of 35 global biodiversity hotspots. Habitat types range from lush coastal wetlands to dry interior grasslands and saltbush scrub in Cuyama Valley, to foothill oak woodlands and savannas, to hill slopes covered by coastal scrub and chaparral, to mountain tops of mixed oak and pine forests.

Even with half of County lands under public ownership or other designations that limit future development, land use change and habitat loss continue to impact wildlife, particularly near the coast and interior valleys and foothills. Climate change, invasive species, residential development, and changing agricultural land use patterns threaten Santa Barbara County's native species and ecosystems. Maintaining habitat connectivity for plants and wildlife will allow them to adjust to shifting climatic conditions across these habitats and between valleys and mountain ranges. This will be vital to maintaining biodiversity and the ecosystem services that support the quality of life and economic, cultural, health, and spiritual benefits that residents and visitors enjoy. Innovative and nuanced approaches to conserve and restore productive and diverse ecosystem while accommodating additional human settlement in the County will become more essential as competition for space increases.

## KEY TAKEAWAYS OF FLORA & FAUNA RESILIENCE

Potential resilience strategies for flora and fauna resources include embracing actions and processes that will support long term health for flora, fauna, and ecosystems in the County, such as:

- Maintaining connectivity at the ecosystem scale, with an emphasis on protection of riparian areas and unfragmented lands as wildlife corridors
  - Supporting incentive-based water and habitat conservation that produces mutually beneficial solutions
  - Improving knowledge of climate change impacts on species within the region and preparing for plant and animal species migration
  - Supporting conservation focused on broader ecosystems and species communities (i.e. mutual benefits for multiple species)
  - Supporting strategic and realistic approaches to invasive species management
- Visit [www.sbcblueprint.net](http://www.sbcblueprint.net) for more resources, project highlights, or to share your ideas!

# AGRICULTURAL AND RANCH LANDS



Keeping large unfragmented agricultural and ranch lands in operation supports economic vitality as well as wildlife habitat and tourism in Santa Barbara County.





## AGRICULTURAL AND RANGLANDS

Working farms and ranch lands are iconic elements of Santa Barbara County's landscape. Residents and visitors alike marvel at the beauty and productivity of the County's vineyards, orchards, rangeland, and croplands. But these lands produce so much more than food and fiber. They help recharge groundwater, protect from floods, provide habitat for native plants and animals, provide connection to historic culture, help drive a thriving tourist industry, provide important recreation opportunities, and assure adequate food supplies in times of need.

Yet the future of working lands has never been more uncertain. Population pressures from growing cities and communities create an almost insatiable demand for land for development. This drives up the value of working lands, often pushing them to the tipping point where it is uneconomical to continue to farm and ranch. Social pressures on farms and ranches in the form of increased regulations and expectations from large commodity crop buyers can raise the cost of operation to the point where smaller farmers can no longer compete, and pressure to sell increases. Uncertain or declining water supplies can make farming and ranching increasingly challenging in some parts of the County. Understanding these and the many other pressures on the economic viability of working lands is a critical step to finding ways to support farmers and ranchers in their desire to continue working the land. One new and promising approach is to find ways for farmers and ranchers to be rewarded for the multiple benefits they provide, several examples of which are highlighted throughout the report.

## KEY TAKEAWAYS TO AGRICULTURAL AND RANCH LAND RESILIENCE

Potential resilience strategies for agricultural and ranch lands include actions and processes that will support the economic and ecological vitality of agricultural and ranch lands in the County, such as:

- Supporting the ability of farmers and ranchers to maintain economic viability through flexibility in cropping choices and ancillary land uses
  - Supporting ways to enhance and preserve habitat and scenery on agricultural and ranch lands through incentives that provide economic benefit to the landowners
  - Increasing the community's understanding of the economic and regulatory burdens on the continued viability of agriculture
  - Supporting the use of agriculture to enhance ecological conditions, combat harmful invasive species and maintain ecosystem services through incentives for participating landowners
- Visit [www.sbcblueprint.net](http://www.sbcblueprint.net) for more resources, project highlights, or to share your ideas!

# COMMUNITY AND THE LAND



Community leaders have the difficult task of embracing a variety of perspectives while also finding common ground across diverse interests on land use in the County.





## COMMUNITY AND THE LAND

How we live, work, and play influence and are influenced by changes in the local landscape, demography, culture, and economy. Like many places in California, Santa Barbara County is experiencing a demographic shift and an expected population boom in the next 25 years that could bring 75,000 additional residents to the County, the vast majority of whom are predicted to move to the northern parts of the County due to job growth, available land, and affordable housing opportunities.

Between agriculture, tourism, recreation, and habitat restoration efforts, Santa Barbara County has an active economy based on its natural resources that can be a support to this growing population if resources are well managed. The County hosts an incredible network of parks and trails that offer recreation and ecosystem service benefits to all who live and play here, but access to these benefits is a challenge for many of the County's citizens. In addition, local and county-level development decisions have far-ranging impacts (some unintended) on key quality of life factors such as housing costs, commute time, transition zones between land use designations, and access to nature. Understanding these interconnected impacts is essential to working toward a future that all Santa Barbara County citizens would continue to find desirable. Despite strong regional cultures and mindsets, many issues must be addressed collectively to support the many shared interests in the County.

## KEY TAKEAWAYS TO RESILIENCE FOR COMMUNITY AND THE LAND

Potential resilience strategies for community and the land include actions and mindsets that will improve access to and awareness of the County's natural and agricultural resources, such as:

- Improving access to nature, open space, and trails in proximity to urban areas in all portions of the County
  - Fostering more county-level thinking and leadership on development, housing and job creation strategies
  - Increasing ecological literacy, understanding and appreciation of the benefits of co-existing with wildlands in the County
  - Enhancing education and measurement of the economic and social benefits of the local conservation economy and the ecosystems services on which it is based
- Visit [www.sbcblueprint.net](http://www.sbcblueprint.net) for more resources, project highlights, or to share your ideas!

## CONCLUSION

The Blueprint report highlights what makes Santa Barbara County such a special place for all species, including our own. It also highlights the various pressures on the quality of life of residents and the hundreds of endemic species that call this place home: human population growth, political and regulatory tensions, housing challenges, climate change, variable water resources, and the challenges of sustaining habitat, rangelands, and farmlands. The County's special qualities are not guaranteed to remain in the future without strategic collaboration to conserve the County's character and enhance the well being of those who live in this unique ecosystem.

At its heart, the Santa Barbara County Conservation Blueprint is intended to support a landscape of opportunity – a healthy and resilient landscape where residents and visitors can enjoy both the economic and environmental benefits that this County is capable of providing. Reflecting back on the work and learning that went into the creation of this report, the following reflections on what resilient conservation may look like for Santa Barbara County stand out:

- **Valuing ecosystem services.** A deeper understanding of the value of nature's goods and services for smarter protection and enhancement of the value of these services will be more and more important in the years to come.
- **Emphasizing landscape connectivity.** A focus on preserving the economic and biological integrity of land by avoiding parcelization of wildlands and farmlands is a critical aspect of creating a landscape of opportunity.

- **A multi-benefit mindset.** Opportunities are amplified when we seek and support projects and activities on the landscape that provide multiple beneficial uses for people, flora and fauna, shared water resources, and long-term environmental health.

- **Community commitment.** The genuine interest, will, and commitment of those who live and work in this County form a foundation of hope – the long-term viability and integrity of working and natural lands in the County is in our hands.

Through the Blueprint development process, it also became apparent that the best means for achieving resilient conservation in Santa Barbara County is for all residents to expand their thinking beyond local community resource concerns to the County as a whole, the ecosystem services on which we depend, and the perspectives of the other people and creatures with whom we share this home. Ultimately, resilient conservation requires understanding the nuances and finding balances. We hope that this Blueprint report and the online Atlas provide the information and tools needed to support broader regional thinking, dialogue, and partnerships.

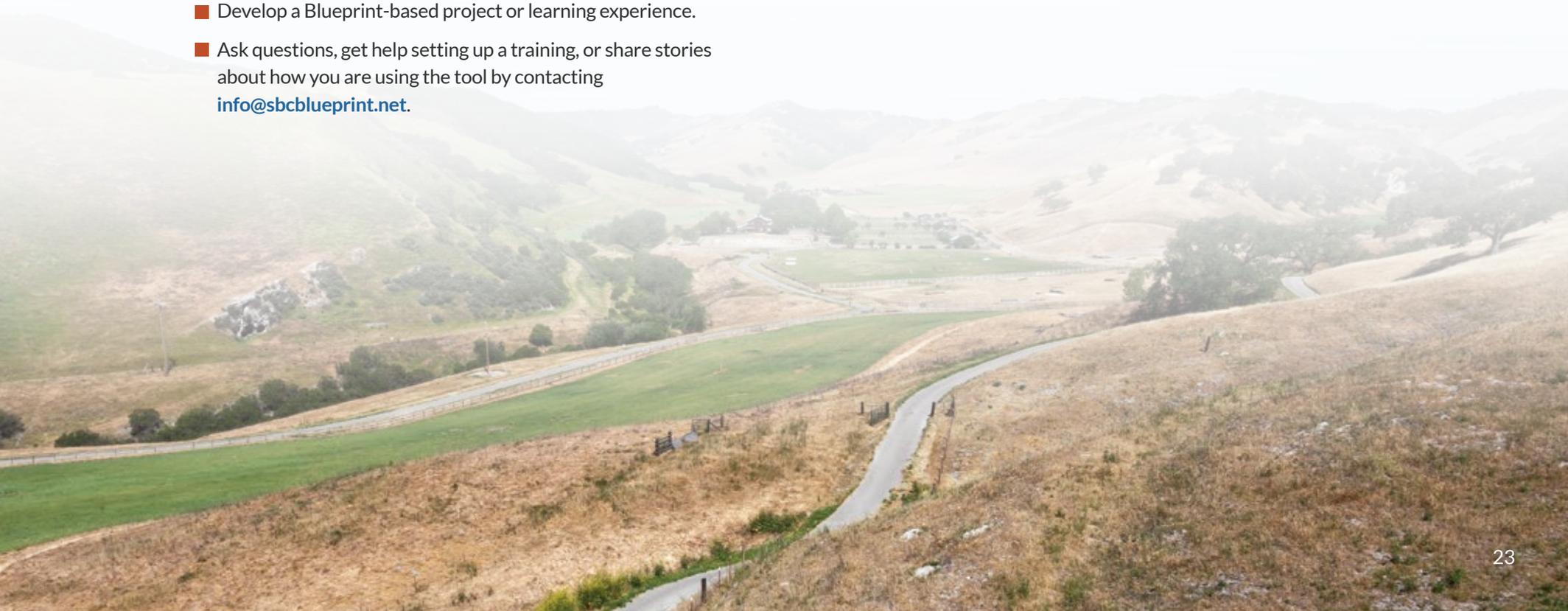
## WHAT'S NEXT?

Though this report is a static document, together with the online interactive Atlas and ongoing community engagement, the Blueprint project offers a shared language, data platform, and starting place for much-needed conversations about nuanced tradeoffs the County faces today affecting the quality of life of all future inhabitants.

## Here are some important actions you can take to stay involved:

- 1 Visit the online Atlas to explore the data behind the points that have been touched on in this report, and much more: <https://sbcblueprint.databasin.org>. Appendix C is a good starting place for learning more about this significant public resource.
- 2 Visit <http://www.sbcblueprint.net> to sign up to stay informed of follow-up events and project developments and to explore additional resources.
- 3 Help spread the word about this new community resource! Using this report and the [online Atlas and tutorials](#), you can:
  - Share the report and Atlas with friends and colleagues.
  - Host a conversation about the tough choices the County faces.
  - Develop a Blueprint-based project or learning experience.
  - Ask questions, get help setting up a training, or share stories about how you are using the tool by contacting [info@sbcblueprint.net](mailto:info@sbcblueprint.net).

There are complex and challenging choices ahead, and varying views on the best pathways forward. But Santa Barbara County's residents have more common values than divergent views when it comes to conserving what makes this area such a tremendous place to live, work, visit, and enjoy. Each of the hundreds of people who contributed to the Blueprint development process deeply care about Santa Barbara County – creating a landscape of opportunity for generations to come is within our collective grasp. Ultimately, it is up to the citizens of Santa Barbara County to bring forth the bold leadership, vision, and creative partnerships needed to achieve just that.



# SANTA BARBARA COUNTY CONSERVATION BLUEPRINT

## BLUEPRINT PARTNERS:



## PROJECT MANAGEMENT TEAM:



## PRINCIPLE FUNDERS:



SANTA BARBARA  
FOUNDATION



CALIFORNIA COASTAL  
CONSERVANCY

JACK & JUDY  
STAPELMANN FUND

HOLLIS NORRIS  
ENDOWED FUND

WALTER J. AND HOLLY  
O. THOMSON FUND



JAMES S. BOWER  
FOUNDATION



BRITTINGHAM FAMILY  
FOUNDATION



DECKERS OUTDOOR  
BRANDS



HUTTON PARKER  
FOUNDATION

RICHARD L. AND MARYAN S. SCHALL FUND

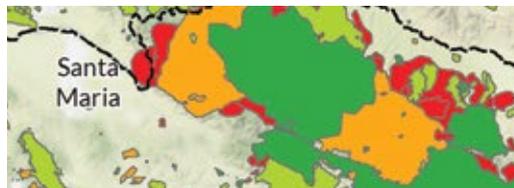
JACK & GRETCHEN NORQUAL

Learn more about this project, preview  
the Atlas, or join our mailing list at:

[www.sbcblueprint.net](http://www.sbcblueprint.net)



CLIMATE &  
RESOURCE TRENDS



INTERACTIVE PUBLIC  
DATA PLATFORM



MULTI-BENEFIT CASE  
STUDIES



YOUR RESOURCE ON  
SHARED RESOURCES