



HEALTHY LANDS & HEALTHY ECONOMIES:

NATURE'S VALUE IN
SANTA CLARA
COUNTY



HEALTHY LANDS & HEALTHY ECONOMIES

“Every farmer knows you should not eat your seed corn, and every banker knows you should not spend your principal. Yet that is exactly what we are doing with and to our natural capital.”

MARK TERCEK, *NATURE'S FORTUNE*



Rancho Cañada del Oro — Cait Hutnik

We are grateful to these generous supporters who made this important work possible:

GORDON AND BETTY
MOORE
FOUNDATION

 S. D. BECHTEL, JR.
FOUNDATION
STEPHEN BECHTEL FUND


Coastal
Conservancy

Nature's Value in Santa Clara County

H *Healthy Lands & Healthy Economies* is an initiative led by the Santa Clara County Open Space Authority, Sonoma County Agricultural Preservation and Open Space District and the Resource Conservation District of Santa Cruz County, in collaboration with Earth Economics, to demonstrate the economic value and community benefits of natural areas and working lands. We are pleased to share the findings and highlights from the Santa Clara County specific report.

Despite successes in setting aside parks and open space over the past few decades, more work must be done to protect and maintain Santa Clara County's natural capital — working landscapes, natural areas and open spaces. The County's natural capital provides foundational economic goods and benefits called "ecosystem services." These services include clean air, water, food, fiber, climate stability, storm and flood protection, and recreation. Each of these is fundamental to our region's health, safety, quality of life, and economy.

The County's fast growing population and effects of climate change are putting increased pressure

on our natural capital and ecosystem services, and underscore the urgency for more integrated land use planning and investments.

Healthy Lands & Healthy Economies fosters a broader understanding of nature's value and the critical connections between healthy lands, communities and economies. The Open Space Authority is applying the findings of this new study to develop new tools and solutions with public and private partners to protect our natural capital and the ecosystem services upon which the region depends.

Santa Clara County's natural capital provides foundational economic goods and services called "ecosystem services."



Measuring the Value of Nature

Healthy Lands & Healthy Economies is a landmark initiative that quantifies or “monetizes” for the first time, the value of Santa Clara County’s natural capital and ecosystem services. Traditionally, the economic benefits of nature have been either undervalued or not valued at all. Today, new techniques for quantifying the value of open space, natural areas and working lands, and their ecosystem services clearly demonstrate that nature has significant value and provides exceptional return on investment.

VALUE OF ECOSYSTEM SERVICES IN SANTA CLARA COUNTY — FROM \$1.6 BILLION TO \$3.9 BILLION

Healthy Lands & Healthy Economies estimates the value of ecosystem services in Santa Clara County using generally accepted valuation methods such as market pricing, economic replacement cost, changes in property values and willingness to pay. The study assigns a range of values for ecosystem services based on prior studies of comparable goods and services in locations similar to Santa Clara County. The specific ecosystem services valued by the study were derived from vegetation or land cover types present. The services evaluated included clean air, water quality and water supply, climate

stability, moderation of storm events, wildlife habitat, pollination, soil retention, healthy food, recreation, tourism, science and education.

Healthy Lands & Healthy Economies found that each year, Santa Clara County’s natural capital provides a stream of ecosystem services to people and the local economy that range in value from **\$1.6 billion to \$3.9 billion**. If the County’s natural capital were valued similarly to infrastructure such as roads, buildings and bridges (built capital) that depreciate over time, its minimum asset value would be between **\$45 billion and \$107 billion**.



Valuation of natural capital and ecosystem services dispels the assumption that nature has little value.



VALUE OF NATURAL CAPITAL IN SANTA CLARA COUNTY — BETWEEN \$162 AND \$386 BILLION

However, unlike built capital, Santa Clara County's significant natural capital is largely self-sustaining and its ecosystem services will likely appreciate or increase in value over time. When calculated as non-depreciable assets, the County's natural capital asset value is between **\$162 and \$386 billion**. By comparison, the County's total assessed property value is approximately **\$335 billion**. Valuation of natural capital and ecosystem services dispels the assumption that nature has little value. It remains a challenge to monetize all of the ecosystem services a landscape provides, but through this and future efforts, we can better account for the value of natural capital to society.



Pajaro River — William K. Mathias

Nature's Return on Investment

Coyote Valley Open Space Preserve

Healthy Lands & Healthy Economies also conducted a return on investment analysis (ROI) to assess the ecosystem services value of preserving natural lands. As a local example, the Open Space Authority examined its Coyote Valley Open Space Preserve, which it acquired in 2010. The Preserve comprises 350-acres at the base of the forested, east-facing foothills of the Santa Cruz Mountains. If the Preserve had not been protected in perpetuity, a portion of the land could likely have been converted to a housing development. Instead, it was preserved permanently for open space, habitat, multi-use trails and outdoor learning opportunities for the public.

VALUE OF ECOSYSTEM SERVICES FOR COYOTE VALLEY OPEN SPACE PRESERVE — \$2,541,925

The ROI analysis estimated that for these 350 acres preserved as open space, the value for the ecosystems services, including recreation and grazing, was **\$2,453,987 on the low end** and **\$2,629,864 on the high end**. The average of this range, **\$2,541,925**, was adopted for the ROI analysis.

RETURN ON INVESTMENT FOR COYOTE VALLEY OPEN SPACE PRESERVE — \$3 FOR EVERY \$1 INVESTED AFTER 10 YEARS

The ROI analysis demonstrated that the return on the public's investment for preserving and managing this land as public open space is significant. The investment required one-time costs of **\$4.5 million** and annual maintenance and stewardship costs of **\$128,000** and annually returns at least **\$3 for every \$1 invested after 10 years**, and nearly **\$6 for every \$1 invested after 20 years**.

The return on public investment for preserving open space is significant.

Coyote Valley Open Space Preserve — Stephen Joseph



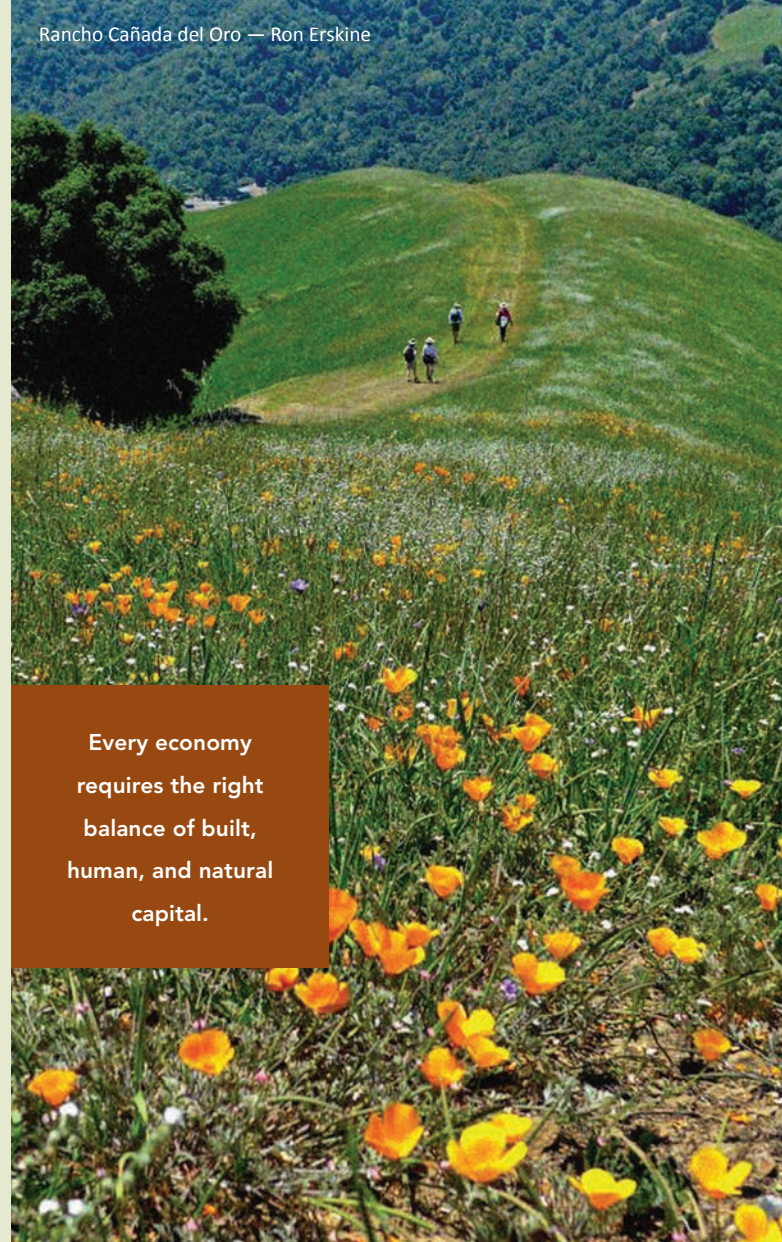
Nature's Capital — A Smart Investment for Healthy Communities and Strong Economies

Every economy requires the right balance of built, human, and natural capital. Santa Clara County faces a myriad of natural resource-related challenges including water scarcity, flood risk, climate change, loss of biodiversity and declining agricultural productivity.

Innovative economic policies, funding mechanisms and smart investments that value natural capital are essential to ensure beneficial, sustainable solutions for Santa Clara County's continuing prosperity in the 21st century.

Core recommendations for Santa Clara County include:

- Account for ecosystem service benefits in decision making
- Create and coordinate use of new tools that optimize investments in natural capital
- Allocate existing and future funding to support natural capital solutions
- Support new market-based projects and legislation that incentivize stewardship of natural capital on public and private lands



Every economy requires the right balance of built, human, and natural capital.

FOR MORE INFORMATION



Andrea Mackenzie, General Manager,
 Santa Clara County Open Space Authority,
amackenzie@openspaceauthority.org, 408.224.7476



Karen Gaffney, Conservation Planning
 Program Manager, Sonoma County Agricultural
 Preservation and Open Space District,
kgaffney@sonoma-county.org, 707.565.7360



RESOURCE
 CONSERVATION DISTRICT
 OF SANTA CRUZ COUNTY

Sacha Lozano, Program Manager,
 Conservation District of Santa Cruz County,
slozano@rcdsantacruz.org, 831.464-2950



Jim Robins, Alnus Ecological,
jrobins@alnus-eco.com, 510.332.9895



David Batker, Earth Economics,
www.earthconomics.org, 253.539.4801

To read the full report, visit openspaceauthority.org.

ABOUT THE OPEN SPACE AUTHORITY

The Santa Clara County Open Space Authority conserves the natural environment, supports agriculture and connects people to nature by protecting open spaces, natural areas and working farms for future generations. The Open Space Authority has protected over 16,000 acres of beautiful open space, agricultural lands, watersheds, and wildlife habitat. We operate preserves with trails that are open to the public 365 days a year. As a relatively small agency with a small budget, we take pride in our role as stewards of the region's natural capital — our air, water, and soil — which supports over 1.8 million people.

ABOUT EARTH ECONOMICS

Earth Economics is a non-profit located in Tacoma, Washington, dedicated to researching and applying the economic solutions of tomorrow, today. Earth Economics provides robust, science-based, ecologically sound economic analysis, policy recommendations and tools to positively transform regional, national and international economics, and asset accounting systems.

Board of Directors

Alex Kennett, *District One*

Mike Flaughner, *District Two*

Sequoia Hall, *District Three*

Dorsey Moore, *District Four*

Virginia Holtz, *District Five*

Mike Potter, *District Six*

Kalvin Gill, *District Seven*



Open Space Authority

6980 Santa Teresa Blvd. Suite 100

San Jose CA 95119

408-224-7476

Openspaceauthority.org

Like Us on Facebook

Follow us on Twitter