



MARIPOSA COUNTY'S

AGRICULTURAL & WORKING LANDS CONSERVATION PLAN.

Please note – This is an abridged, draft document and only includes strategies specific to Phase 2 of Working Lands, Working Artists. There are many other strategies included in the complete draft.

An Action Plan for investment
in our agricultural & working
lands for regional resilience

AWLCP

SECOND DRAFT | JULY 31, 2023



01

CHAPTER 01.

THE VISION.

1.1 INTRODUCTION

The Mariposa County Agricultural & Working Lands Conservation Plan (AAWLCP, Plan or Action Plan) is the result of a community-led effort to invest in working lands as a long-term cultural, social and economic resource while responding to the changing climate. This **Action Plan** links working lands preservation, thoughtful land use planning, agricultural enterprise and enhanced partnerships into a comprehensive “call to action” community effort.

The effort is led by a diverse group of community stakeholders, including ranchers and farmers, representatives of local government agencies, conservation partners, representatives of community-based organizations, and the Southern Sierra Miwuk Nation (SSMN). It is funded by a grant from the State of California’s *Sustainable Agricultural Lands Conservation (SALC)* program.

THE FUTURE.

1.2 A VISION FOR A SHARED FUTURE - HONORING AND INVESTING IN THE WORKING LANDS OF MARIPOSA COUNTY

Mariposa County occupies over 1,400 square miles of the Sierra Nevada foothills on land traditionally occupied by the Southern Sierra Miwuk Nation (SSMN). It is located at the western gateway to Yosemite National Park and occupies the southern tip of the Mother Lode, (California’s “Gold Rush Belt”), with the Town of Mariposa founded along Mariposa Creek in 1850 as a mining town. Due to the County’s proximity to Yosemite National Park and the well-known California Gold Rush legacy, these two narratives have dominated the identity of “Mariposa County”. For good reason, these two histories have been, and will continue to be, potent and important economic drivers for the region.

Working Lands Value in Mariposa County

The County’s early history in enacting one of the state’s first “right to agricultural activities” ordinances, its commitment to upholding and funding the Williamson Act program, and a General plan that elevates agriculture as an essential element to the identity of Mariposa County, provides a strong starting point for the development of this Action Plan. This **Action Plan** aims to amplify and provide a long range conservation vision for the ongoing critical cultural, social and economic contributions of the County’s working lands. As of 2020, the County’s leading agricultural commodity was cattle and calves, and the agricultural production gross value was over \$36.7 million with 73 percent (or \$27 million) in cattle and calves. Almost all of the County’s agricultural land is in grazing (over 402,000 acres), with less than one percent in farmland.¹ **Cattle ranching currently anchors Mariposa County’s agricultural economic activity.**

Not only do working lands provide food and working lands jobs, they provide foundational environmental, cultural and social benefits including the vast views of the foothills, clean air, water availability, climate amelioration, buffers for wildfire protection and storm protection. Together these benefits are called “ecosystem services” or “natural capital”. Each of these services is fundamental to the region’s identity, health, safety, quality of life, and economy. Currently, the “natural capital” of Mariposa’s natural and working lands is estimated to be over \$7.5 billion (refer to Appendix B, *Ecosystem Services Assessment*, and Section 3).



CATTLE RANCHING CURRENTLY ANCHORS MARIPOSA COUNTY’S AGRICULTURAL ECONOMIC ACTIVITY

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“NATURAL CAPITAL”
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¹ CA Department of Conservation, Farmland Mapping and Monitoring Program (FMMP)



WHAT ARE ECOSYSTEM SERVICES?

*Ecosystem services are defined as the direct and indirect contributions of ecosystems to human well-being, and have an impact on our survival and quality of life. There are four types of ecosystem services: **Provisioning, regulating, cultural and supporting services:***

- **Provisioning** services are characterized by the ability of humans to obtain products from ecosystems, such as food, water and resources, including wood, oil and genetic resources and medicines.
- **Regulating** services are categorized as any benefit obtained from the natural processes and functioning of ecosystems. Examples include: climate regulation, flood regulation and other natural hazard regulation, pollination, water purification and more.
- **Cultural** services include non-material benefits that people can obtain from ecosystems. These include spiritual enrichment, mental health benefits, intellectual development, recreation and aesthetic values.
- **Supporting** services are those that are necessary for the production of all other ecosystem services. Examples include biomass production, production of atmospheric oxygen, soil formation and retention, water cycling and provisioning of habitat.

Challenges to Mariposa County's Quality of Life

The coming decades however bring new challenges. As economic stresses and changing climate continue to threaten Mariposa County's working lands vitality, fundamental changes to planning policies along with new investments and programs are needed to not only protect working lands, but to ensure that a legacy of environmental stewardship and economic opportunity is passed onto the next generation. Though the County does not face the development pressures seen in many of California's agricultural regions, the chief challenges in Mariposa are the threat of wildfires, more severe storms, hotter and drier summers, and reduced water supply. Failure to adapt to these threats has serious repercussions for the entire community, including:

- ✦ *Declining income and employment from working lands,*
- ✦ *Loss of the ecosystem services provided by working lands,*
- ✦ *Increasing frequency of park closures due to climate events and the resulting loss in economic revenue to the region, and*
- ✦ *Loss of the quality-of-life benefits provided by working lands*

In the face of these emerging risks, adaptive strategies can ensure the continuing vitality of working lands over the coming decades. This **Action Plan** outlines a conservation vision that directs land protection and stewardship efforts for the coming decades. The approach is multi-faceted and layered in order to provide a holistic solution to the challenges that lie ahead. This approach includes strategies that:

- ✦ *expand economic opportunities for farm and ranch operators;*
- ✦ *provide a supportive environment that encourages and facilitates new entrants into ranching and farming by investing in education, training programs and pilot projects;*
- ✦ *support the continuation and expansion of climate-smart land stewardship through multi-faceted conservation and educational programs; and*
- ✦ *provide direction for community investment and support for the continued vitality and visibility of Mariposa's working lands.*

A Vision for Mariposa County: Shared Stewardship and the Power of Collaboration

Protection of and investment in the working lands of Mariposa County and the multiple benefits they provide are essential to the continuing health, vitality and identity of Mariposa County. Through collaboration and shared stewardship, the community can continue to build on the thriving agricultural sector that provides economic opportunity, supports community well-being, and preserves the health of the natural resources for generations to come.

This Action Plan recommends strategies that aim to:

■ **PROTECT**

Protect and invest in the network of ranches, farms, and natural lands that define the County's unique identity and provide increased resilience to a changing climate;

■ **ENHANCE**

Enhance awareness and education in the community about the benefits that working lands provide, and the importance of supporting their long-term preservation;

■ **CULTIVATE**

Cultivate a diverse and resilient agricultural sector that attracts new ranchers and farmers while embracing sustainable agricultural practices;

■ **HONOR**

Continue to honor and support the ranching and farming community, conservation partners, the Southern Sierra Miwuk Nation, and organizations that together have stewarded and sustained these lands; and

■ **FOCUS**

Focus on development of community partnerships that, together, bring a unique blend of expertise and experience to meet the challenges ahead.



WHAT DO WE MEAN BY "WORKING LANDS"?

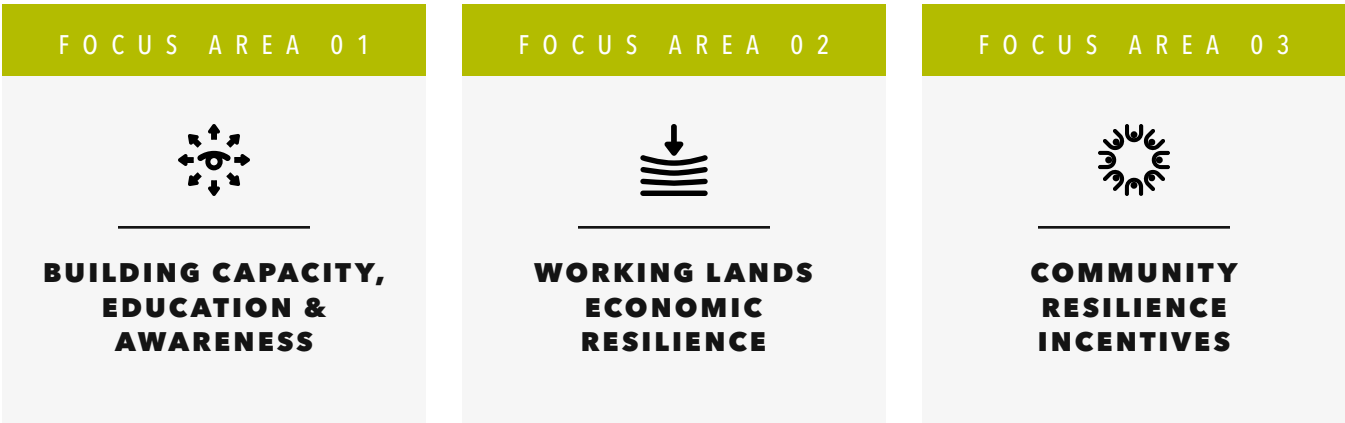
Working lands are the rangelands, ranches, farms and forestlands used to support livelihoods. Their value extends beyond a dollar amount. Working lands are recognized as homes to wildlife, areas that protect open space, that clean our air, provide our food and the local community with a sense of place. These "extra" conservation and cultural values are growing in importance as the wildlands that are traditionally seen as harboring these values are increasingly threatened and fragmented. Because of this, working lands are valued not only by the people who earn their livelihoods from the land, but also from communities that recognize the value of working landscapes to supply our food, protect nature, and provide numerous social and cultural benefits.

■■ CALIFORNIA RANGELANDS HAVE A LONG HISTORY OF WITHSTANDING PHYSICAL, ECOLOGICAL, AND ECONOMIC CHANGES. CAREFUL MANAGEMENT CAN HELP RANGELANDS REMAIN ECOLOGICALLY HEALTHY AND ECONOMICALLY PRODUCTIVE UNDER FUTURE CLIMATE. RANCHERS ARE ALREADY USED TO DEALING WITH LARGE YEAR-TO-YEAR VARIABILITY, AND THEIR LONG-TERM KNOWLEDGE OF THEIR LAND WILL BE A KEY INGREDIENT IN CRAFTING CLIMATE ADAPTATION PLANS THAT ARE LOCALLY APPROPRIATE."

- Climate Vulnerability Assessment of California Rangelands, USDA California Climate Hub, 2017

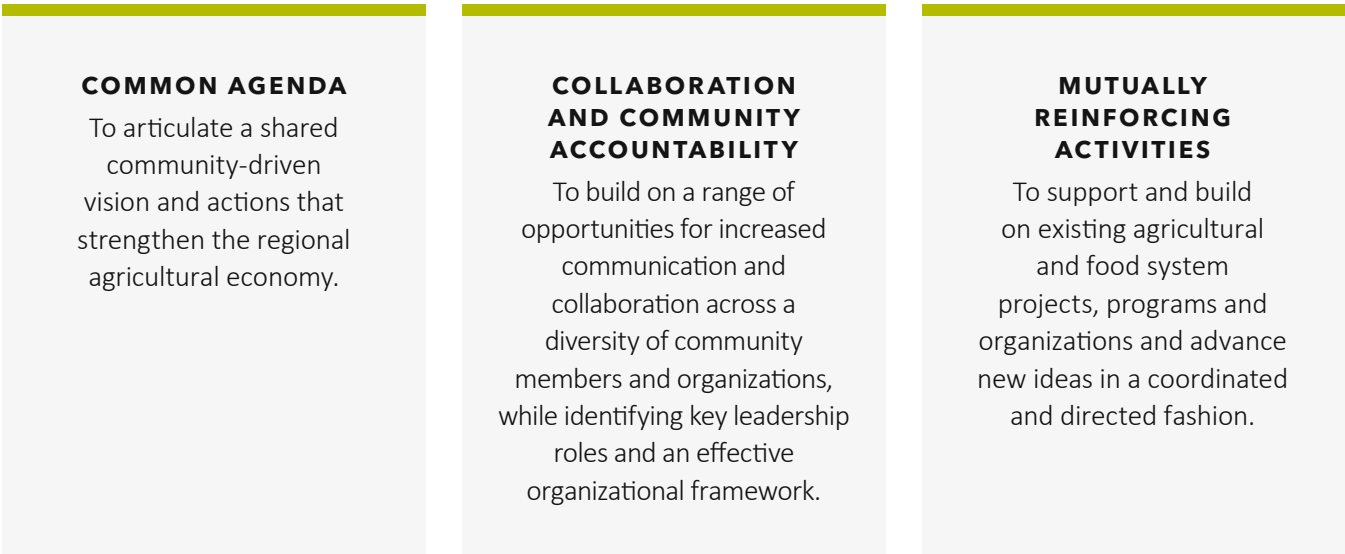
1.3 SETTING THE TABLE FOR LONG-TERM COMMUNITY RESILIENCE: THE ORGANIZATIONAL FRAMEWORK

This **Action Plan** looks at Mariposa County’s working lands economy from an integrated systems perspective and is organized around three focus areas of equal importance:



These focus areas make up the foundational system of advancing the **Action Plan** and are intended to guide decisions and priorities.

The framework of this document is based on the idea that innovation is most likely to occur in areas where the focus areas overlap, and where ranchers, farmers, nonprofits, government agencies, tribal representatives, educational institutions, and others work together in concert. *The goals of this framework are:*



1.4 FOCUS AREAS AND MAIN OBJECTIVES

The three focus areas identify a set of objectives, recommended strategies, near-term action steps and implementing partners (refer to Chapter 4). The strategies describe programs and projects that range from short-term wins to bold, long-term efforts. It is anticipated that when this **Action Plan** is adopted, it positions the County and community partners to seek funding for its implementation. The focus areas and main objectives are summarized below:

FOCUS AREA 01 **BUILDING CAPACITY, EDUCATION & AWARENESS**

Increasing capacity and integration across community partners to build awareness and educational opportunities is an essential piece of implementing this **Action Plan**. This means building on the County's existing social capital to align, leverage and scale resources, particularly through partnerships. Building awareness of nature-based climate solutions and their ability to deliver environmental, economic, public health and equity improvements to the community's working lands is critical to the success of this **Action Plan**. Honoring and investing in the County's working lands reinforces the community's cultural identity and long-term resilience.

This focus area provides a set of strategies that emphasize the need for the community to build capacity and create a shared vision that highlights the critical role that working landscapes play in a resilient future. Strategies are based on the following objectives:

- ✦ **Catalyze collaborative and integrated partnerships and build the capacity of institutional and community structures** to support agricultural and working lands conservation, on-the-ground climate smart agricultural practices, and rural community investment with education, technical assistance, and voluntary financial incentives.
- ✦ **Continue to build on the efforts to promote local working lands**, including elevating a culture of land stewardship, and educating consumers on the benefits of supporting local ranchers and producers and the role that agriculture and working lands play in the local economy and ecosystem.
- ✦ **Support existing ranchers and farmers with technical assistance**, including climate-smart agriculture practices, and growing/training new and transitioning ranchers and farmers.
- ✦ **Align, leverage and scale resources**, particularly through partnerships.
- ✦ **Expand partnership opportunities with Native American tribes** in stewarding public and working landscapes while providing support to build capacity.
- ✦ **Continue to develop art, design and education programs that honor the community's deeply rooted identity** in working landscapes.
- ✦ **Facilitate creative placekeeping** to amplify the importance of working lands to the Mariposa community and its identity.



AGRICULTURE
IS DEEPLY
WOVEN INTO
THE CULTURAL
FABRIC OF OUR
COMMUNITY &
CONTRIBUTES
IN MULTIPLE
WAYS TO THE
ECONOMIC
DEVELOPMENT
OF THE COUNTY.
I THINK IT
SHOULD BE
EXPANDED
UPON IN
TERMS OF
OUTREACH AND
PROMOTION!"

-Survey respondent, Fall 2022



FOCUS AREA 02

WORKING LANDS ECONOMIC RESILIENCE

Sustained economic opportunities are key to maintaining and enhancing the rural lifestyle rooted in ranching and the County's unique natural resources. The County's working landscapes also contribute to the region's economy by attracting employers, workers and visitors alike. It is clear that land protection and conservation measures alone will not protect these landscapes and grow a vibrant regional working lands economy. Economic vitality requires enhancing economic growth and creating new streams of income for ranchers, producers and private foresters.

This focus area provides recommended agricultural economic development strategies that build upon the County's existing working lands assets to secure the viability of agriculture into the future. Strategies are focused on the following objectives:

- + *Improve economic opportunities for ranchers and farmers by **expanding value-added processing activities**.*
- + *Create a supportive environment that encourages and **facilitates new entrants into ranching and farming** by providing access to land, financing and technical assistance.*
- + *Support the viability of agricultural operations by **diversifying and expanding the income opportunities** generated by ranches and farms through agritourism activities (while ensuring the safety of visitors and the operation).*
- + *Encourage and allow **the establishment of infrastructure and support uses** that facilitate the growth of the working lands economy.*



FOCUS AREA 03

COMMUNITY RESILIENCE INCENTIVES

Healthy landscapes can sequester and store carbon, limit future greenhouse gas emissions into the atmosphere, protect people and nature from the impacts of the changing climate, and build resilience. Healthy working landscapes strengthen the County's climate resiliency and build new markets and streams of income for ranchers and farmers using climate smart agricultural and forestry practices that contribute to their economic viability.

This focus area provides strategies that bolster broadscale climate resilience while recognizing land conservation and ecosystem services as assets to the community worthy of investment. Strategies are focused on the following objectives:

- + *Support widespread **adoption of climate smart land management practices** on Mariposa landscapes that enhance carbon sequestration and other ecosystem services.*
- + *Expand **long-term agricultural and working lands conservation** in Mariposa County.*
- + *Support economic, climate, and cultural resilience by **protecting and enhancing agricultural and working landscapes** and facilitating efficient development in existing Planned Residential Areas.*
- + ***Explore programs to monetize the ecosystem services** provided by Mariposa County's agricultural and forest lands.*
- + ***Ensure that agricultural lands at the County's borders are protected** from conversion to other uses.*



WHAT IS REGENERATIVE AGRICULTURE?

Regenerative ranching and agricultural practices focus on restoring and improving the health of the land, biodiversity, and soil fertility while also ensuring sustainable and profitable livestock and farming production. Some examples of regenerative practices include:

- Holistic planned grazing which uses a comprehensive approach to grazing management that takes into account the specific needs of the land, livestock and wildlife,
- Riparian management, to protect and restore riparian zones by implementing fencing, planting native vegetation, and/or managing livestock access to these areas,
- Silvopasture, which integrates trees, forages, and livestock in a mutually beneficial system, and /or
- Soil health improvement such as no-till or minimum tillage, which reduces soil disturbance and preserves the soil structure, organic matter and soil microorganisms.

The benefits of regenerative agriculture practices include:

- Increasing biodiversity in soil
- Capturing carbon in the soils to combat climate variability
- Improving water-holding capacity of soil, making it more drought- and flood- resilient
- Decreasing the use of chemical inputs and subsequent pollution, and
- Enhancing wildlife habitat

At its core, regenerative agriculture is the process of restoring degraded soils using practices (such as what is described above) based on ecological principles.

1.5 IMPLEMENTATION - SOLVING FOR TOMORROW, TOGETHER

This **Action Plan** recommends a suite of interrelated strategies and program ideas to address the most pressing challenges facing working lands. Moving forward, it is essential that greater communication and collaboration is established between the implementing partners and community stakeholders. In addition, sustained investment in open data and open science practices are critical for informed data-based decision making, tracking progress, and to facilitate community engagement, awareness and education.

The partners who undertake this work include ranchers and farmers, agricultural organizations, community advocacy groups, agencies, government bodies, tribal representatives and conservation organizations. **The Plan** envisions that the **Core Team** will provide the initial oversight of the strategies and actions, while the community mobilizes to implement the recommended strategies in this Plan. Those organizations are:

- ✦ Mariposa County Planning, Economic Development and Department of Agriculture & Weights and Measures, Agricultural Commissioner & County Sealer's office
- ✦ University of California Cooperative Extension Service (UCCE)
- ✦ California Cattlemen's Association (CCA)
- ✦ Sierra Foothill Conservancy (SFC)
- ✦ Mariposa County Resource Conservation District (MCRCD)
- ✦ Mariposa County Arts Council

Establishing the Working Lands Roundtable

The creation of the Working Lands Roundtable in Foundational Strategy 1, is the first step in successful implementation of this **Action Plan**. The **Plan** envisions that the **Working Lands Roundtable** could work together with the Core Team to act as an organizing body to help implement, select and, prioritize the recommended strategies in this Plan, including:

- ✦ Honing the organizational model that provides a basis for a collaborative framework for coordinating and implementing the AAWLCP;
- ✦ Helping to set specific measurable goals, priorities and timelines for selected strategies and actions;
- ✦ Defining roles and responsibilities of partner organizations;
- ✦ Identifying and applying for funding to implement selected strategies;

- ✦ Expanding and enhancing the use of open data and open science practices as applicable;
- ✦ Developing an organizational structure to track progress towards achieving the AWLCP goals;
- ✦ Ensuring that the community is working in a coordinated and collaborative fashion; and
- ✦ Staying responsive to changing circumstances, requirements and issues facing the working lands sector.

Funding the Future - A Regional Collaboration

Many of the over 25 recommended strategies and programs require additional long-term funding sources. Opportunities exist to attract new funding from diverse sources by using this **Action Plan**, along with other key County and regional guiding documents in making the case for State, Federal, local and/or philanthropic investments.

Each recommended strategy in this document (refer to Chapter 4.0) is followed by the most relevant potential funding sources.

Healthy landscapes can sequester and store carbon, limit future greenhouse gas emissions into the atmosphere, protect people and nature from the impacts of the changing climate and build resilience.





“THE HATCHERY” VISION

Named both for the site’s historic use as a fish hatchery and for the proposed development’s role in nurturing and supporting the growth of local businesses, *The Hatchery* is imagined as an innovation hub for existing and emergent local businesses and nonprofits that are aligned with the wider Mariposa Creek Parkway vision. In addition to anchoring and activating the Phase IV segment of the Mariposa Creek Parkway, *The Hatchery* would offer a creative and flexible work environment for organizations and entrepreneurs engaged in forest management, environmental restoration, land use planning, green building and construction, renewable energy, and environmental education work in Mariposa County.

The Hatchery would be situated in close proximity to existing and future mixed-income multi-family communities as well as a burgeoning network of multi-use recreational trails. Coupled with innovative architecture and site design strategies, *The Hatchery* will support the growth of existing and emergent businesses in key industries, empowering local employers to create sustainable, high-quality jobs whose outputs would result in safer, more balanced landscapes and ecosystems—in other words, **economic vitality through ecological resilience.**

In addition to subsidized rents and shared resources, *The Hatchery* will provide a vibrant environment where qualified businesses can share ideas, develop partnerships, and collaborate to pursue growth strategies that benefit all participants. For example, *Hatchery* organizations could partner to pursue major state and federal funding to continue and expand efforts.

+ STRATEGY 1F

Build on the Mariposa County Creative Placemaking Strategy to support the Art, Cultural & Agricultural Creative Placemaking Program that leverages design and visual/media/performing arts to explore the many historic and contemporary stories related to the cultural and agricultural legacies in Mariposa.

Such a program could also serve as an educational tool to highlight the impact and historical significance of agriculture in the County for visitors.

ACTIONS:

- Convene partners to prioritize needs, set goals, and explore funding opportunities for implementing partners.
- Inventory potential activities to be explored such as: The creation of wayside signage along main roads (e.g. Hwy 49, Hwy 140); interactive digital maps that highlight current and historical agricultural landmarks; programs that connect placemaking with land stewardship; and artistic, culinary, intellectual, recreational and community oriented experiences that connect people with the land and share nuanced stories of the County’s agricultural heritage.
- Participate in the Mariposa Working Lands Roundtable to elevate awareness of the Program and recruit other organizations to participate and shape the content of the Program, including coordination with other AWLCP Strategies.
- Develop a Year 1 Pilot workplan and timeline and seek funding to implement.

IMPLEMENTING PARTNERS: Mariposa Arts Council, County Planning and Economic Development, YMCTB, SSMN

FUNDING OPPORTUNITIES: California Arts Council, National Endowment for the Arts (NEA), National Endowment for the Humanities (NEH)

CASE STUDIES & RESOURCES: Working Lands, Working Artists, a project from the Mariposa County Creative Placemaking Strategy, Center for Community Progress

FUNDING OPPORTUNITIES: USDA's, [Value-Added Producer Grants \(VAPG\)](#); Mariposa County Business Assistance/Microenterprise Loan Program (CDBG); [CDFA, Resilient Food Systems Infrastructure Program](#)

CASE STUDIES & RESOURCES: [Ranchers Customer Butchering](#)

+ VALUE ADDED PROCESSING: STRATEGY 2D

Develop, implement and scale forest biomass for energy generation.

Building on the experience from the Mariposa Biomass Project, determine the scaling potential for additional biomass energy production. Given the amount of forest land in Mariposa County, combined with the need for better forest management practices that will, among other actions, remove excess fuels from fire-prone areas, the use of forest biomass for energy generation represents an attractive economic development activity. Using local forest biomass for energy generation helps to reduce wildfire hazards, but can also create local economic activity by converting the forest-thinning by-products to a marketable product (electricity).

ACTIONS:

- *Assess successes and challenges of the Mariposa Biomass Project and determine feasibility for a second facility with the potential for developing a micro grid for Mariposa County.*

IMPLEMENTING PARTNERS: Mariposa RCD, UCCE Woody Biomass Advisor

FUNDING OPPORTUNITIES: Private equity, grants, loans, tax credit investor equity

CASE STUDIES & RESOURCES: [Mariposa Biomass Project](#); [Tuolumne Biomass LLC](#), [North Fork Bioenergy Plan](#)

+ VALUE ADDED PROCESSING: STRATEGY 2E

Explore the opportunities for manufacturing products using locally harvested wood.

Smaller scale, sustainable harvesting of local trees/biomass could be an opportunity to supply materials for new forest products in a way that helps the State meet its climate goals. Although the volume would likely only be a small fraction of historic timber harvest, the value added through local manufacturing could be substantial. Financing from this program could be used to help finance projects such as the Mariposa Biomass Project and other local projects that would utilize biomass to create other marketable products, helping to achieve fuels reduction/forest resiliency goals as well as create new economic activity, including, but not limited to: (A) Clean energy production, except combustion biomass conversion; (B) Advanced construction materials; (C) Forestry equipment needed to achieve the state's goals for forest and vegetation management treatments; Public art that highlights the working landscapes of Mariposa County.

IMPLEMENTING PARTNERS: County Economic Development, RCD, MCFAC, MFSC, SSMN, UCCE Woody Biomass Advisor, US Forest Service

FUNDING OPPORTUNITIES: CA Forest Sector Economic Stimulus component of Wildfire and Forest Resilience Early Action Package for 2020-2021 (SB 85); [Mariposa County Business Assistance/Microenterprise Loan Program](#) (CDBG); U.S. EDA funding via Central Sierra Economic Development District; CDBG funding via CA HCD Small Cities economic development program

CASE STUDIES & RESOURCES: [Fabric Workshop Mass Timber Products and Services Company](#)

- Focus on identifying and completing visible pilot/demonstration projects under State and Federal grant and technical support programs (such as the Healthy Soils Initiative) that provide support to scale carbon farming and nature-based solutions.
- Assess opportunities for Mariposa County agricultural operators to participate in voluntary carbon markets (VCMs) which would allow them to benefit from selling “environmental credits” (e.g., offsets) for climate-smart land stewardship and agricultural practices.

IMPLEMENTING PARTNERS: UCCE, Mariposa County Planning, SFC,, Mariposa RCD, NRCS, Mariposa County Air Pollution Control District

FUNDING OPPORTUNITIES: CDFA, [Healthy Soils Pilot Block Grants Program](#), UC ANR [Climate Smart Ag Technical Assistance](#); Point Blue, [Roots Program](#); Zero Footprint, [Restore Program](#); NRCS EQIP

CASE STUDIES & RESOURCES: [Louisiana Department of Environmental Quality, Water Quality Trading Program](#); [American Carbon Registry](#)



WHAT DO WE MEAN BY NATURE-BASED SOLUTIONS AND WHY ARE THEY IMPORTANT?

Nature-based solutions are sustainable planning, design, environmental management and engineering practices that weave natural features or processes into both natural and modified ecosystems to promote adaptation and resilience. These solutions use natural features and processes to deliver multiple outcomes, including the reduction of flood risk, improvements to water quality, protection of property, and increased resilience to wildfires etc.

Nature-based solutions are important because they offer significant monetary and non-monetary benefits. They often come at a lower cost than traditional infrastructure improvements. These benefits include economic growth, green jobs, increased property values, sustainable water systems and better public health. Numerous examples of effective nature based solutions are readily available, including:

- Climate smart agricultural practices increase soil carbon and function for improved water quality and availability, nutrient efficiency and natural fertility, crop production and forage growth. They can also increase water storage for flood and drought resilience, contribute to our economy, increase food security, improve water and air quality, support biodiversity, and on grasslands can reduce the risk of extreme wildfire.
- Climate smart forest management reduces the threat of catastrophic wildfire and supports long-term carbon storage. Nature-based solutions that improve the health of our forests also capture and clean our water supply, improve air quality, provide habitat for wildlife, create high-road jobs, and support local economies through tourism, recreation, and forest products.



CARBON FARMING: WHAT ARE WE TALKING ABOUT?

Carbon sequestration is the natural process of plants taking in CO₂ from the atmosphere and, through a biochemical interaction between the roots, the soil, and microorganisms, storing that CO₂ in the soil profile. Rangeland and cropland, including publicly and privately managed lands, comprise a large portion of the land base in Mariposa County. These working lands have significant potential for sequestering carbon from the atmosphere, thus serving as a climate mitigation strategy. Active management of working lands can enhance the rate of carbon sequestration in soils and vegetation, therefore carbon farming (i.e., the suite of practices that brings about more sequestration) has a critical role to play in helping Mariposa County develop resilience to climate change while simultaneously reducing atmospheric greenhouse gasses driving climate change. Carbon farming and other related agricultural activities may be referred to as “climate beneficial” because of the capacity to draw carbon from the atmosphere and for the numerous co-benefits of carbon farming, including increased soil organic matter and soil water-holding capacity. Such activities include, but aren’t limited to compost application, cover cropping, hedgerow planting, and prescribed grazing.

+ STRATEGY 3C

Continue to explore options for forest and land stewardship opportunities in collaboration with the Native American community.

Related to federal and state interest in climate change, there is increasing emphasis on forest health and resilience to wildfires on public lands. In addition, there is greater awareness of the important historic role of Native American groups in the stewardship of the landscape and interest in cooperating with Native American groups in public land management. This extends not only to planning for public land management, but also in some cases directly hiring Native American organizations to help in actively managing public lands consistent with historic Native American practices. This may create expanded opportunities for generation of local employment and income through the participation of Native American groups from Mariposa County in the stewardship of public lands within the County.

Expand the SSMN Pollinator Project to train and develop a versatile Tribal Conservation Corps to provide holistic land stewardship services including habitat restoration, fuels reduction, cultural and prescribed burning, and reforestation. Likewise, expand opportunities for cultural burns to reduce fuel, improve natural resources, and replant native plant species of traditional significance to the Southern Sierra Miwuk tribe.

ACTION:

- *Develop a collaborative partnership among SSMN, NPS, the BLM, and the US Forest Service to explore stewardship opportunities on public lands.*

IMPLEMENTING PARTNERS: SSMN, NPS, Mariposa County, SFC, MFSC, Mariposa RCD, BLM, US Forest Service

FUNDING OPPORTUNITIES: CA Wildlife conservation Board; CA Dept of Fish and Wildlife; CAL FIRE Forest Health Grant Program; Sierra Nevada Conservancy; National Science Foundation; U.S. Joint Fire Science Program

CASE STUDIES & RESOURCES: Native American approaches to fire management