



CA Governor's Office of
Land Use and
Climate Innovation

BIOMASS UTILIZATION IN THE CENTRAL SIERRA PUBLIC WORKSHOP

MARCH 24, 2025

MOTHER LODE JOB TRAINING CENTER

Local Public Entity Solutions for the Forest Biomass Markets in the South Central Sierra



CLERE

California Law Empowering Renewable Energy

Presented by Christiana Darlington
March 24, 2025



Review of Entities Involved in Forest Management and Biomass Residuals

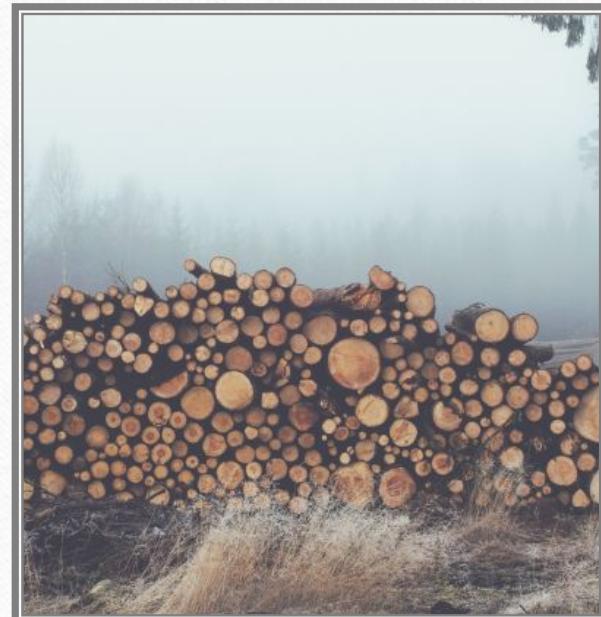
Entities Types

Joint Irrigation, Water and Power Districts

- Waste Management Authorities
- Open Space Districts and City/County Parks
- Councils of Governments, Housing, and Transportation Services
- State-wide Entities

Entities Closely Relevant to our Interests with CAL FRAME

- Upper Mokelumne River Watershed Authority (UMRWA)
- Central Sierra Economic Development District (CSEDD)
- Marin Wildfire Prevention Authority
- Eastern Sierra Council of Governments



Improving Feedstock Contracts for Buyers and Sellers of Biomass Residuals

- Surety bonds
 - The current common way contracts are guaranteed, but expensive and limited in scope
- Insurance tools
 - A potential tool if adopted statewide and if lenders and investors were OK with shorter term insurance tool than the risk of the debt
- State guarantee fund
 - Potential statewide fund pool that contract could draw from in objectively bad market situations

Activities of Biomass Management Public Entity

Items from 2023 Paper

- Environmental Review
- Business Support
- Equipment Leasing
- Owning Infrastructure

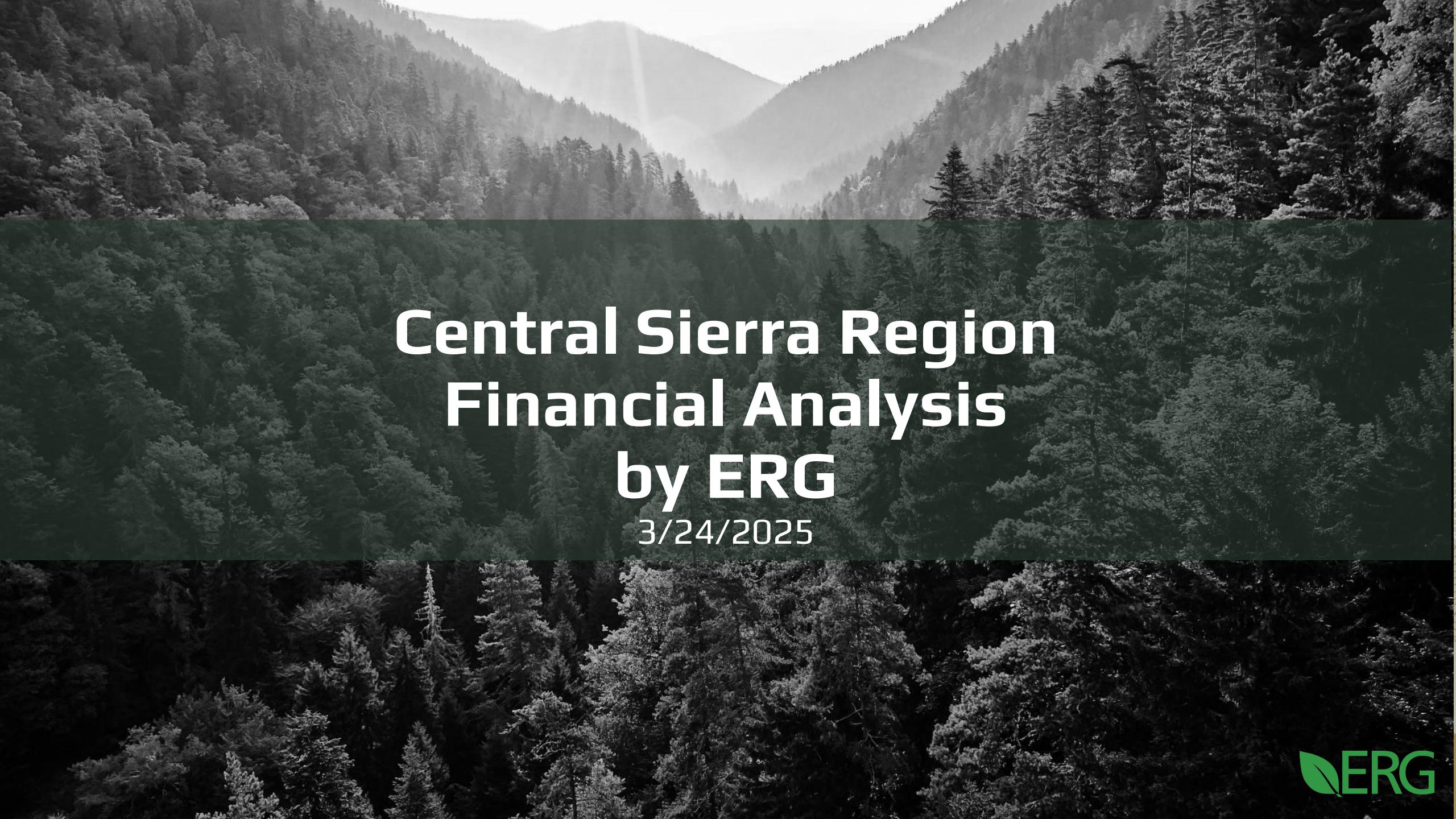
New Additions to potential services

- Relationship with US Forest Service including GNA contracts
- Management of grants or foundation monies



The Choice of a JPA over a Special District Model

- CSDs operate as local government agencies that provide essential services and facilities to communities within their jurisdictions, while
- JPAs are created by two or more local governments or local agencies to jointly provide services or facilities that benefit all participating jurisdictions.
- CSD development would require establishing a new board and obtaining residents approval and going through LAFCO
- JPAs are created by formal action of its members
- Establishing CSDs in rural areas that are sparsely populated is challenging.



Central Sierra Region Financial Analysis by ERG

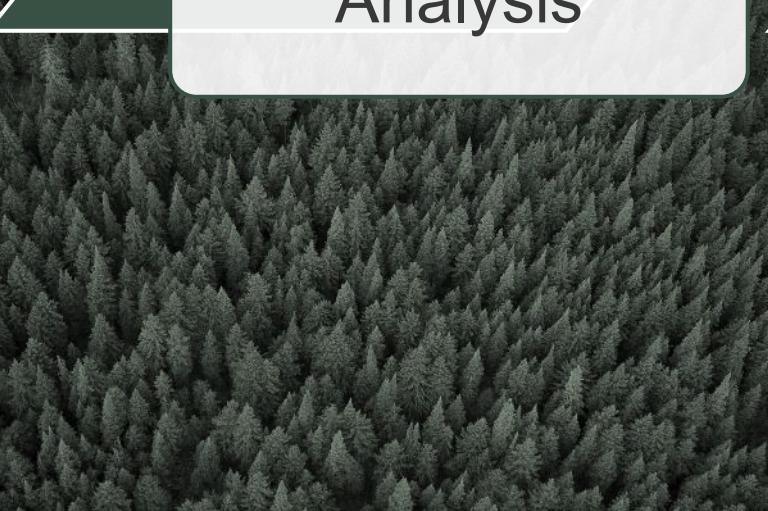
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Financial Analysis Report

ERG conducted an analysis to understand the financial viability of a new or expanded JPA.



Organizational
Study Findings
& Other Reports



Financial
Analysis



**Viable Funding
Scenarios &
Recommendations**

Financial Analysis Methods



Conducted literature review



Interviewed other JPAs



Conducted feasibility analysis



Identified revenue options



Developed funding scenarios



Crafted findings and recommendations

Assumptions based on Organizational Study Findings

Many barriers limit the effective use of biomass.

- Regulations, costs, standard practices
- Lack of workforce, high transportation costs, removal challenges

A comprehensive approach is needed to achieve benefits.

- Increased economic opportunities through beneficial use of biomass
- Strengthened forest health and resilience
- Reduced forest fuels and wildfire risk

A new or expanded JPA could serve a critical coordinating role.

- Coordinated approach to overcome barriers
- Potential to connect biomass buyers and sellers through feedstock contracts and other key services

Description of Revenue Options Assessed

Revenue Option	Description
Grants	Obtaining resources from state and federal sources to fund program objectives.
Bonds	Selling of revenue bonds in support of infrastructure projects.
Taxes	Issuing taxes paid by residents within a region to support a program, requiring voter approval.
Dues	Requiring dues be paid by member agencies to fund ongoing operational costs of the JPA.
Fees for Services	Charging a fee for services provided (see examples below).
- Feedstock Contracts	Working with large, medium, and small businesses, and private landowners, to develop feedstock contracts to connect buyers and sellers of biomass.
- GIS/CEQA Support	Providing GIS mapping and CEQA support services to users within the region.
- Wood Product Facility	Supporting the development of products and services such as firewood, post and pole processing, animal bedding, biomass fiber, and small-scale sawmill products.
- Private Landowner Support	Providing services to private landowners to help them remove woody biomass from their properties.
- Endowments and Gifts	Receiving private funds from individuals or organizations to support the program's mission.
Managing Good Neighbor Authority	Utilizing and managing GNAs – a contracting mechanism allowing USFS to work with local agencies to perform fuel reduction work on federal lands.

Feasibility Analysis

Revenue Option	Likelihood	Priority	Overall Feasibility
Grants			High
Bonds			Low
Taxes			Low
Dues			Low
Fee			High
for Ser vic es			High
Feedstock Contracts			Medium
GIS and CEQA Support			Medium
Wood Product Facility			Medium
Private Landowner Support for Biomass Reduction			Medium
Endowments and Gifts			Medium
Managing Good Neighbor Authority Agreements			Medium

Ranking Legend

- Low
- Medium
- High

Key Revenue Streams



Grants

- State funding (Office of Land Use and Climate Innovation)
- Other state and federal sources



Fees for Services

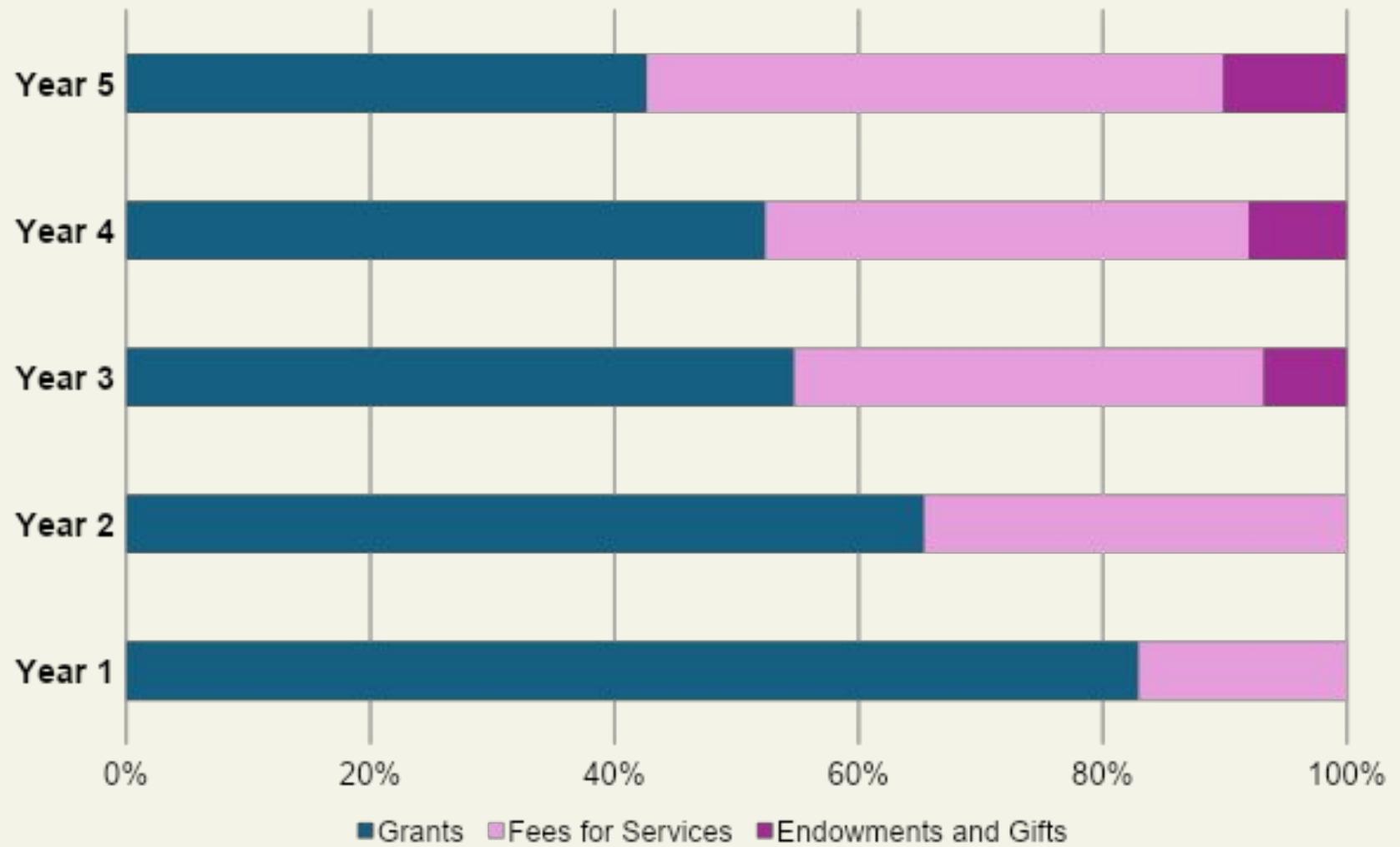
- Coordinating long-term feedstock contracts
- GIS and CEQA services
- Future services: Private landowner support for biomass reduction and managing GNAs



Endowments and Gifts

- Philanthropic organizations and foundations
- Private donors

Five Year Outlook – Revenue Streams



Key Revenue & Cost Considerations



Phased Approach

- Modify fees for services to match regional needs
- Increase ratio from grant funding to fees for service



Staffing

- Constitutes the largest cost
- 1 FTE + consulting services



Operational Reserve Fund

- 75% of profits to operational reserve fund
- Provides buffer and investment opportunity

Key Findings



There is a need for ongoing stable funding from the state.



Further JPA scoping and planning will likely result in additional opportunities.



Flexibility and new partnerships will provide future revenue opportunities.

Key Considerations for Next Steps



Continue regional research.

- Continue to identify needs and strengths in the region.
- Adapt and align services to address needs.



Continue scoping and planning.

- Finalize JPA objectives, services, and desired outcomes.
- Identify member agencies and organizational capacity.



Maintain flexibility.

- Consider unique funding opportunities.
- Adapt and expand services throughout the region.



Questions?

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Upper Mokelumne River Watershed Authority

Biomass Utilization in the Central Sierra Public Workshop

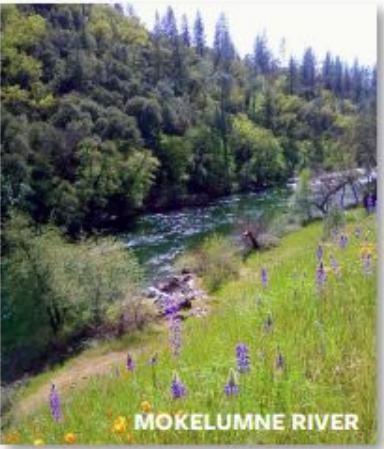
March 24, 2025



Upper Mokelumne River
Watershed Authority

Who we are

Upper Mokelumne River Watershed Authority



What and Who We Are

UMRWA is a Joint Powers Authority established in 2000 and comprised of six water agencies: Amador Water Agency, Calaveras County Water District, Calaveras Public Utility District, East Bay Municipal Utility District, Jackson Valley Irrigation District, and Alpine County Water Agency, and the counties of Amador, Calaveras, and Alpine.

UMRWA Mission

To develop partnerships, form plans, execute projects, and leverage federal and state investments for the regional benefit of the Upper Mokelumne River watershed.

Key Activities



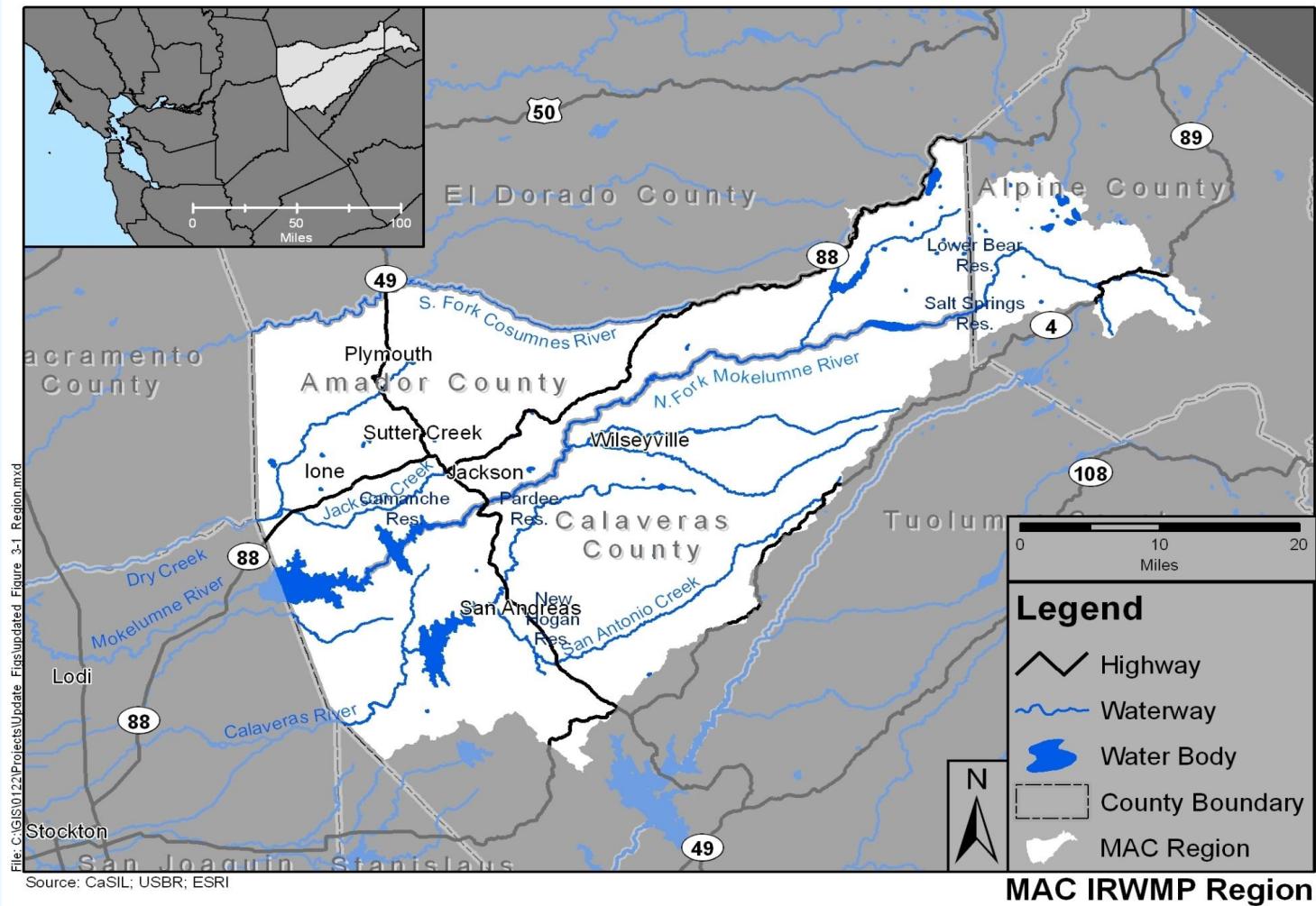
Sponsor the MAC
IRWM Region
(Update MAC Plan,
apply for and
administer grants)

Region-level
assessments &
resource planning
(Watershed
Assessment,
MokeWISE)

Supporting
Education
Programs for Local
Schools

Collaborating on
forest health
initiatives (USFS,
ACCG, SNC, CalFire,
NFWF, Blue Forest,
many others)

UMRWA Is....



UMRWA Staff



Executive Officer, Richard Sykes
Administrative Officer, Rob Alcott
Counsel, Greg Gillot (Amador Co.)
Secretary, Lorna Barfield (EBMUD)
Treasurer, David Glasser (EBMUD)
Forest Program Team
Landmark Environmental
Regine Miller
Megan Layhee
Ty McCarthy





UMRWA Key Activities

- Sponsoring the MAC IRWM Region (Update MAC Plan, apply for and administer grants – approx. \$10M in grants for member agency/regional projects)
- Conducting region-level assessments & resource planning (Watershed Assessment, MokeWISE)
- Supporting Stewardship Through Education Program for Local Schools
- Collaborating on forest health initiatives (USFS, ACCG, SNC, CalFire, NFWF, Blue Forest, many others)





UMRWA's Forest Health Program

UMRWA and USFS Executed a Master Stewardship Agreement in 2016 with UMRWA's tasks including:

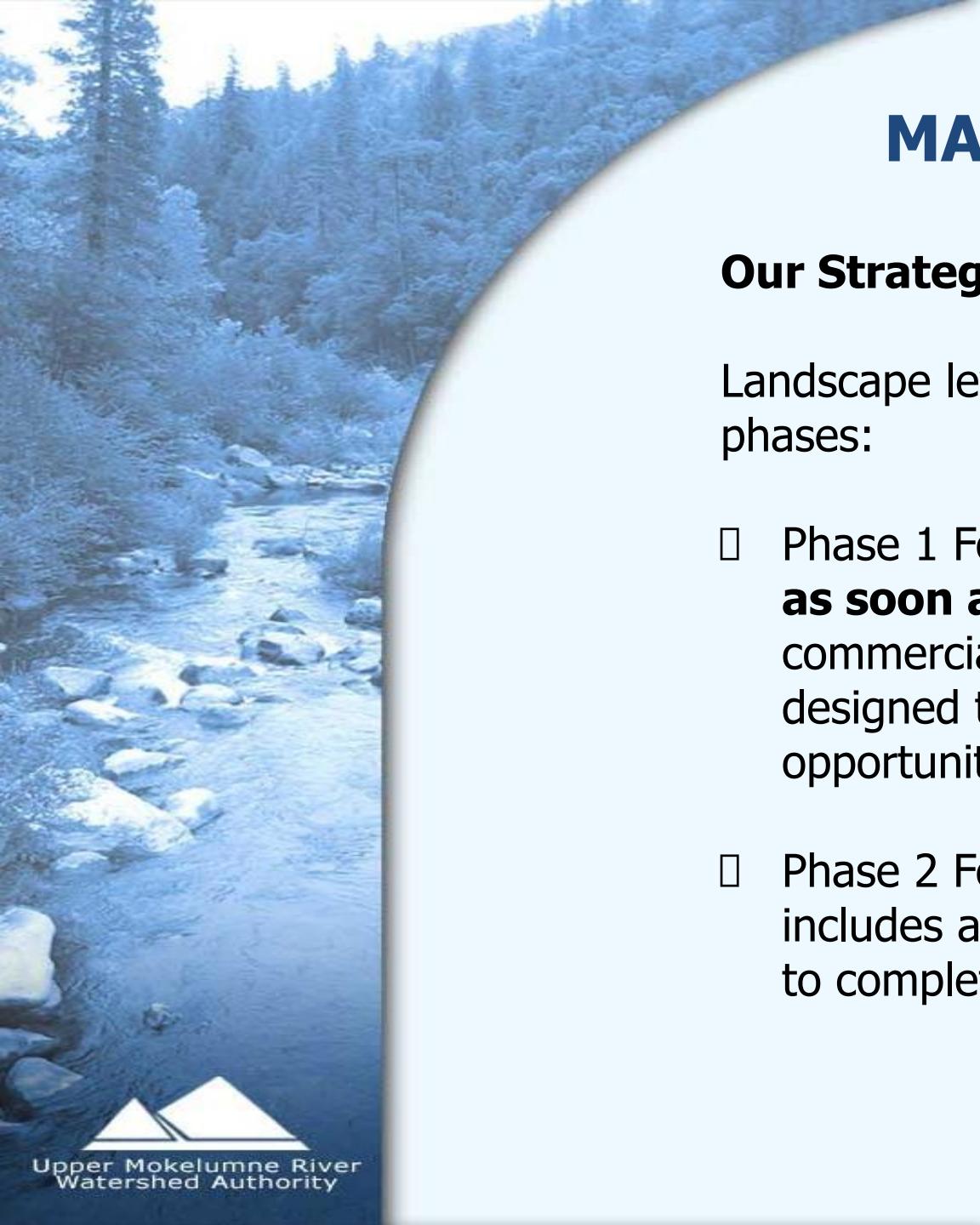
- Explore project funding opportunities
- Work w/USFS to fulfill CEQA requirements and implement forest health projects
- Manage UMRWA contractors in coordination w/USFS
- First 4 years projects limited to modest sized ladder fuels projects in the Calaveras Ranger District
- Recognized a need to increase scale of work – hence development of the the Mokelumne Amador Calaveras Forest Health and Reslience Project (MAC Project)**



Need for the MAC Project



Upper Mokelumne River
Watershed Authority



MAC Project—Background

Our Strategy and Approach:

Landscape level, NEPA/CEQA planning project, in two phases:

- Phase 1 Focus - treatments that can be implemented **as soon as possible**, and are independent of commercial timber value. These treatments are designed to take advantage of current grant funding opportunities on a fast-track. 25,000 acre area.
- Phase 2 Focus – Covers a much bigger area and includes areas that require more evaluation and time to complete planning. 250,000 acre area.





MAC Project Goals:

- Improve forest health and habitat and reduce the risk of *severe* wildfires on as much ground as possible in the Mokelumne watershed.
- Partner with the Amador Calaveras Consensus Group in planning and implementation.
- Prepare NEPA/CEQA-ready fuels treatment projects as quickly as possible.
- Prepare the upper Mokelumne watershed for substantial grant opportunities.
- Continue to help contractors and local economy maintain and build capacity.



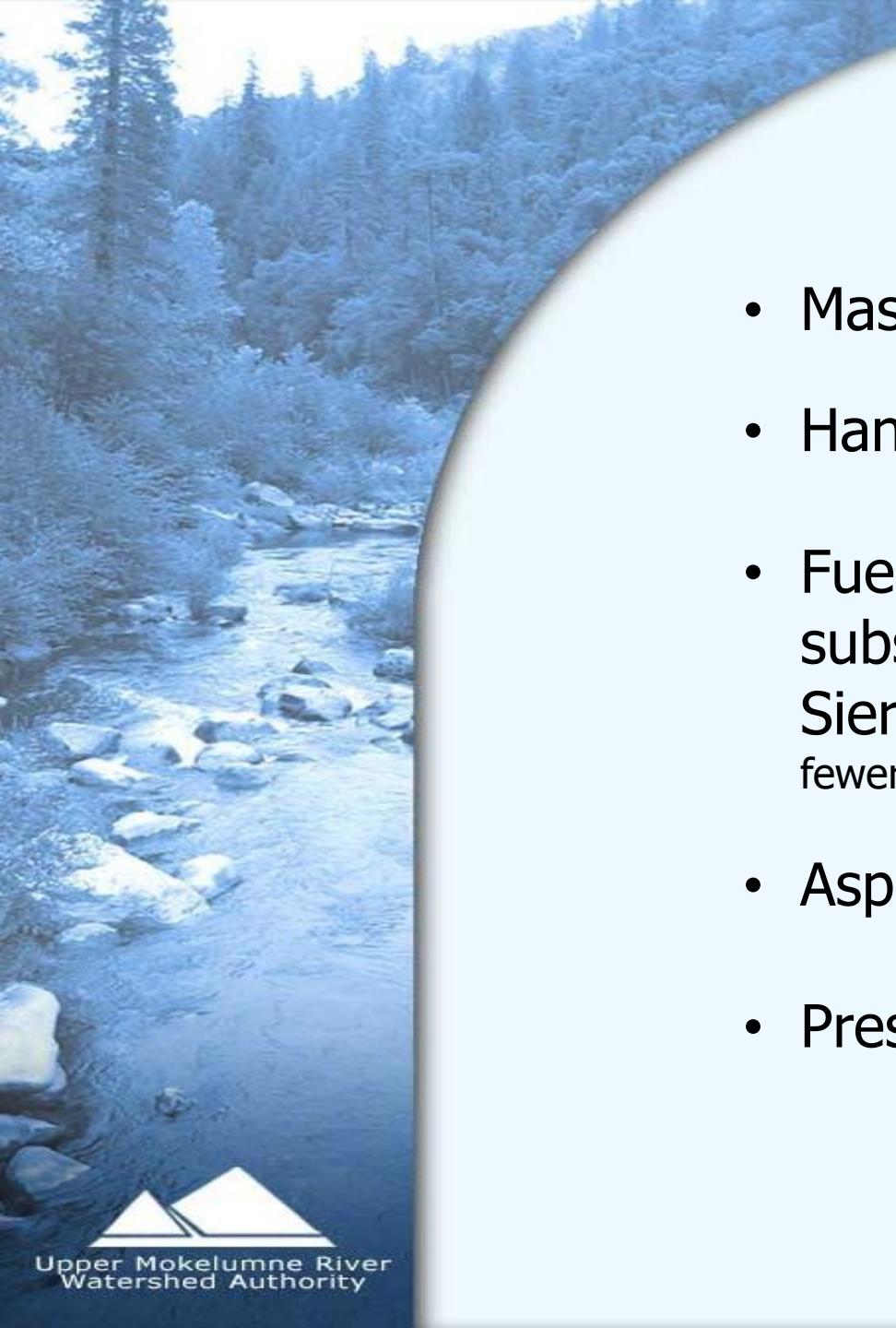


Phase 1 Implementation Goals

Eight (8) year implementation period:

- Contracts awarded July/August each year to treat a combined 4,000 acres on average
- First set of contracts awarded in 2023 (CalFire \$5M), second set 2024 (CalFire \$6.4M, SNC \$5M), and upcoming in 2025 (WCB \$4M)
- Additional contracts to be awarded 2025 – 2029 for treatments to remaining acres subject to obtaining grant funding





Overview of MAC Project Phase 1 Treatment Types

- Masturbation (to the extent possible, slopes up to 40%)
- Hand thinning small trees
- Fuel breaks and thinning treatments that don't substantially alter the habitat as defined by Sierra Nevada Forest Plan Amendment (requires fewer field surveys/analysis)
- Aspen/meadow restoration
- Prescribed burning (to be implemented by FS)



Mastication – along Highway 88



Forest Projects Plan (FPP) Phase 1 Implementation Map: Project Area

Eldorado National Forest, Amador Ranger District



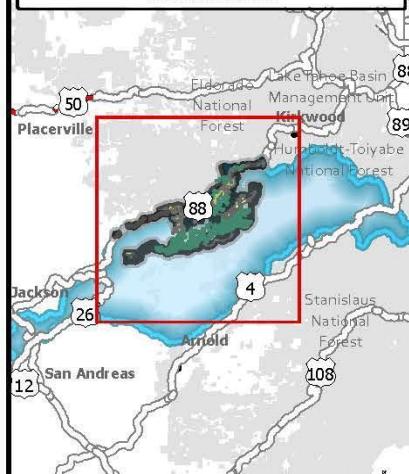
Legend

- FPP Phase 1 88
- FPP Phase 1A - Arbor
- FPP Phase 1B - Birch
- FPP Phase 1C - Cedar
- FPP Phase 1D - Dogwood
- FPP Phase 1 Planning Area
- Towns
- Waterbody (Data source: USGS)
- Highway
- Stream/River: Hydrographic Category = Perennial
- Stream/River: Hydrographic Category = Intermittent
- USDA Forest Service
- Non-USDA Forest Service

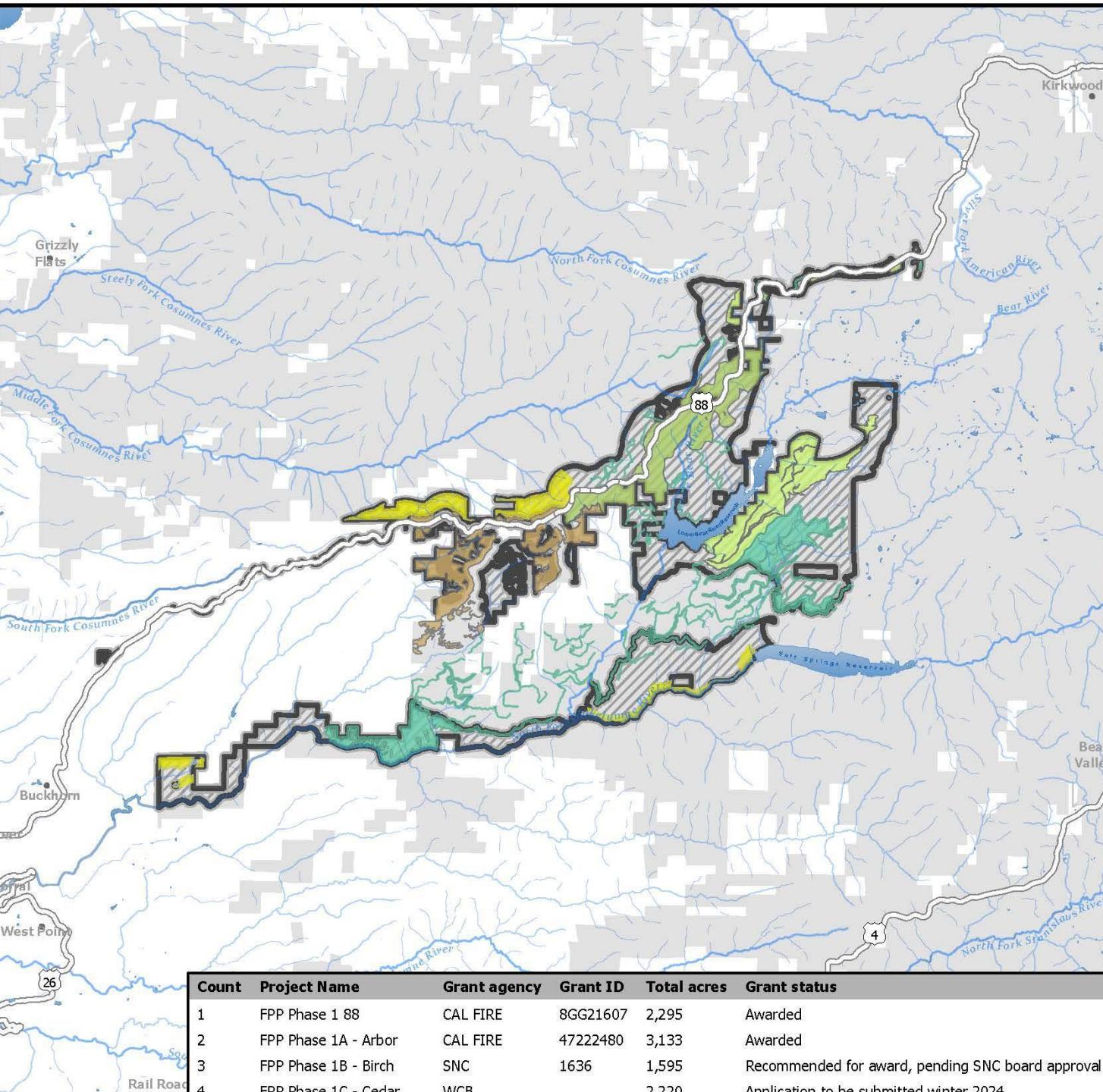
0 1.25 2.5 5 Miles
Scale: 1:205,000

LANDMARK
ENVIRONMENTAL
Supporting clients through environmental compliance and planning.

Upper Mokelumne River Watershed



Upper Mokelumne
Watershed Auth



Count	Project Name	Grant agency	Grant ID	Total acres	Grant status
1	FPP Phase 1 88	CAL FIRE	8GG21607	2,295	Awarded
2	FPP Phase 1A - Arbor	CAL FIRE	47222480	3,133	Awarded
3	FPP Phase 1B - Birch	SNC	1636	1,595	Recommended for award, pending SNC board approval
4	FPP Phase 1C - Cedar	WCB		2,220	Application to be submitted winter 2024



Phase 2: Planning Phase

- 250,000-acre Project Area on two National Forests
- Includes Phase 1 treatment types plus commercial thinning, canopy reduction, aspen stand restoration, meadow restoration
- Continues partnership with ACCG
- Stakeholder Committee and Technical Advisory Group formed and active
- NEPA Notice of Intent Published in September
- Alternatives development occurring now
- Draft EIS this year



**Forest Projects Plan
(FPP), Phase 2
v.10/19/2023**

Eldorado National Forest, Amador Ranger District & Stanislaus National Forest, Calaveras Ranger District

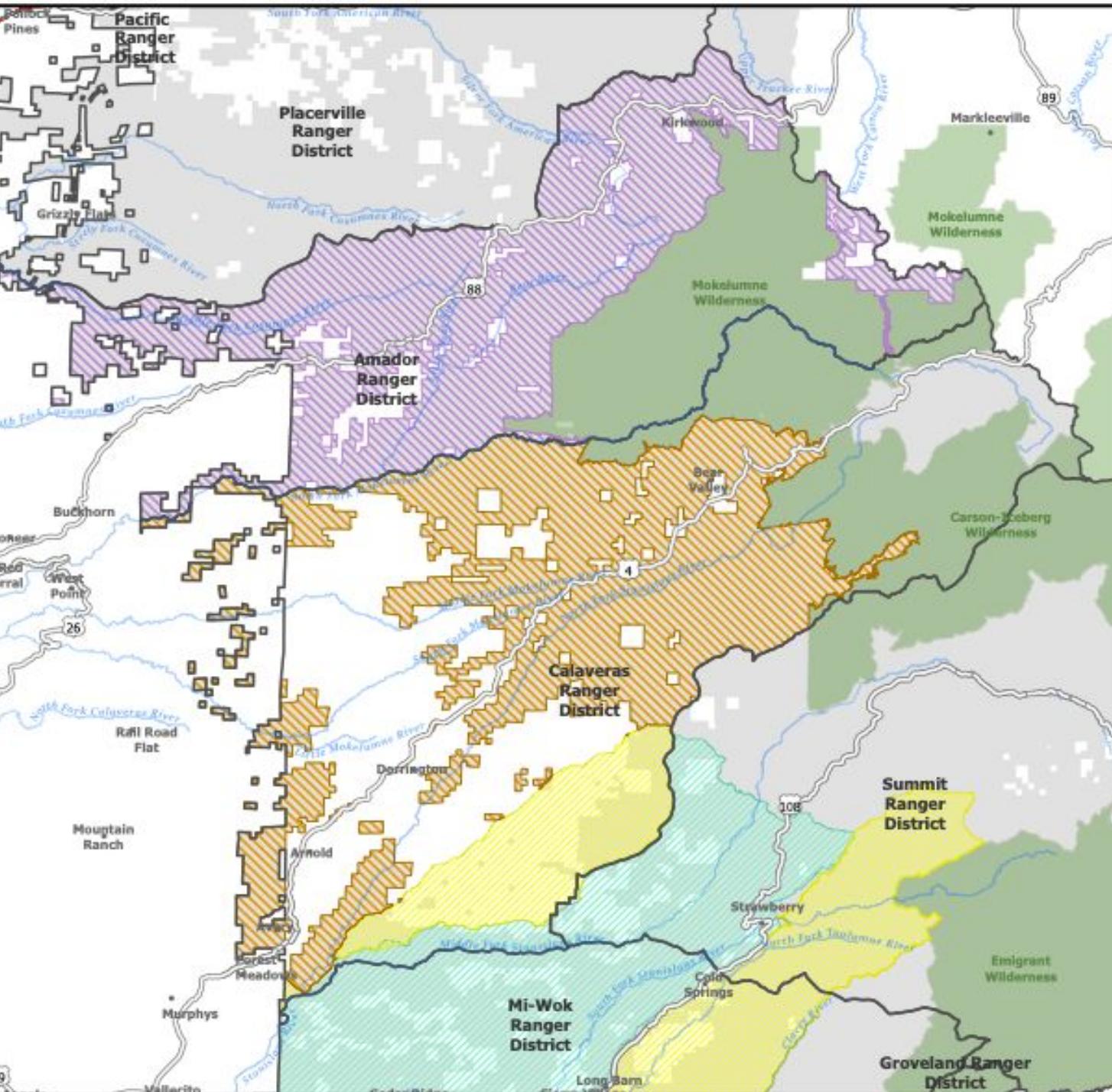


Map 1. Project Area

Legend

-  FPP, Phase 2 - ENF, Amador RD (120,577 ac)
 -  FPP, Phase 2 - STF, Calaveras RD UPDATED (125,984 ac)
 -  SERAL 1
 -  SERAL 2
 -  National Designated Wilderness
 -  Ranger Districts
 -  USDA Forest Service
 -  Non-USDA Forest Service

1.75 3.5 7 Miles
Scale: 1:350,000



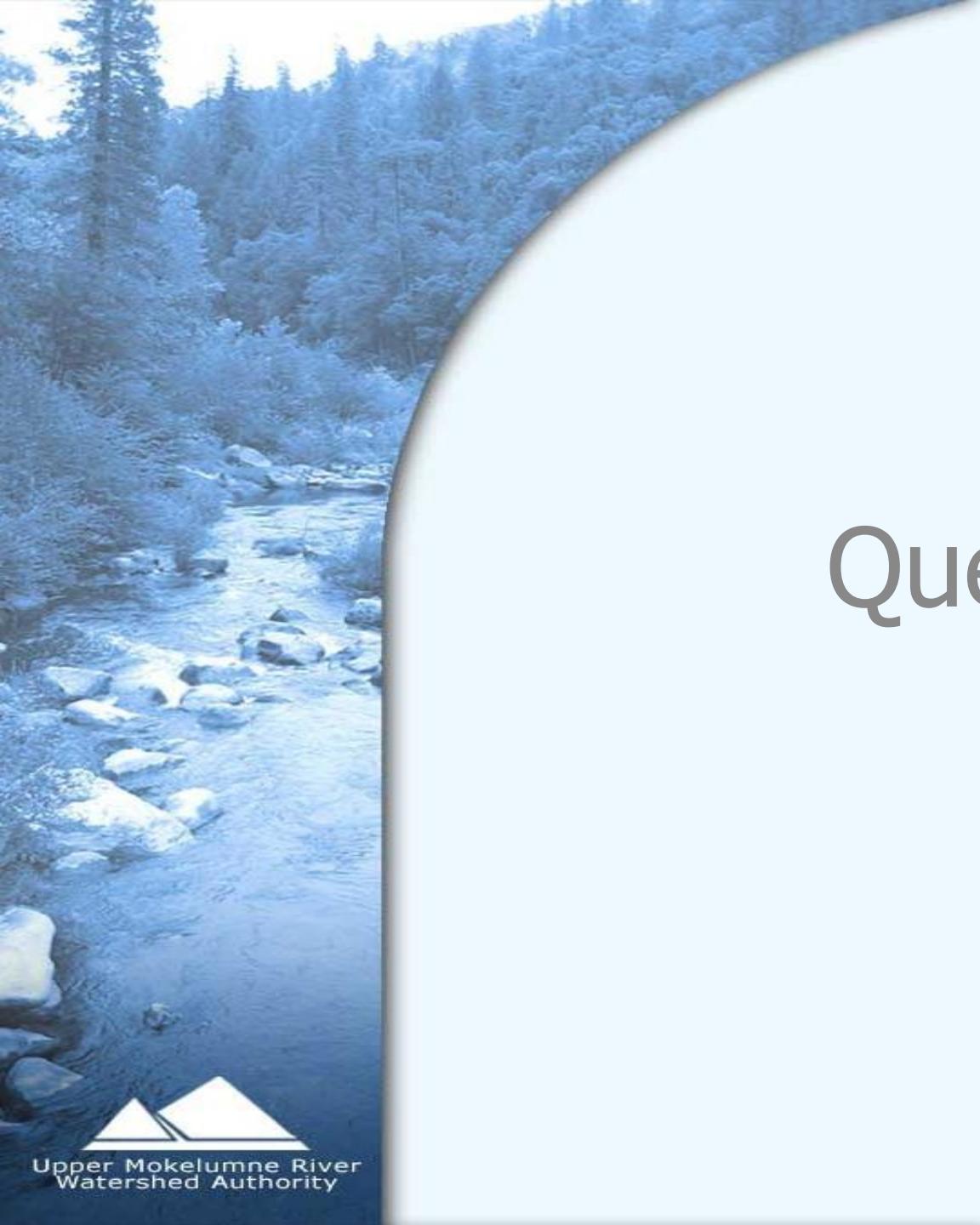
UMRWA's Future Involvement in Biomass



UMRWA's Board is very interested in helping to address the issue of biomass utilization as a means to enhance the forest health work occurring in our region. This could take many forms including:

- Participation in planning efforts
- Contracting as a biomass source for a future JPA
- Participation in a future JPA with the potential for many different roles





Questions?



Upper Mokelumne River
Watershed Authority



BIOMASS UTILIZATION IN THE CENTRAL SIERRA PUBLIC WORKSHOP



CA Governor's Office of
Land Use and
Climate Innovation

**MARCH 24, 2025
11:00AM - 3:00PM**

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