



Introduction to the Forest Resilience Bond (FRB)

Prepared for California State Board of Forestry and Fire Prevention

June 12th, 2019

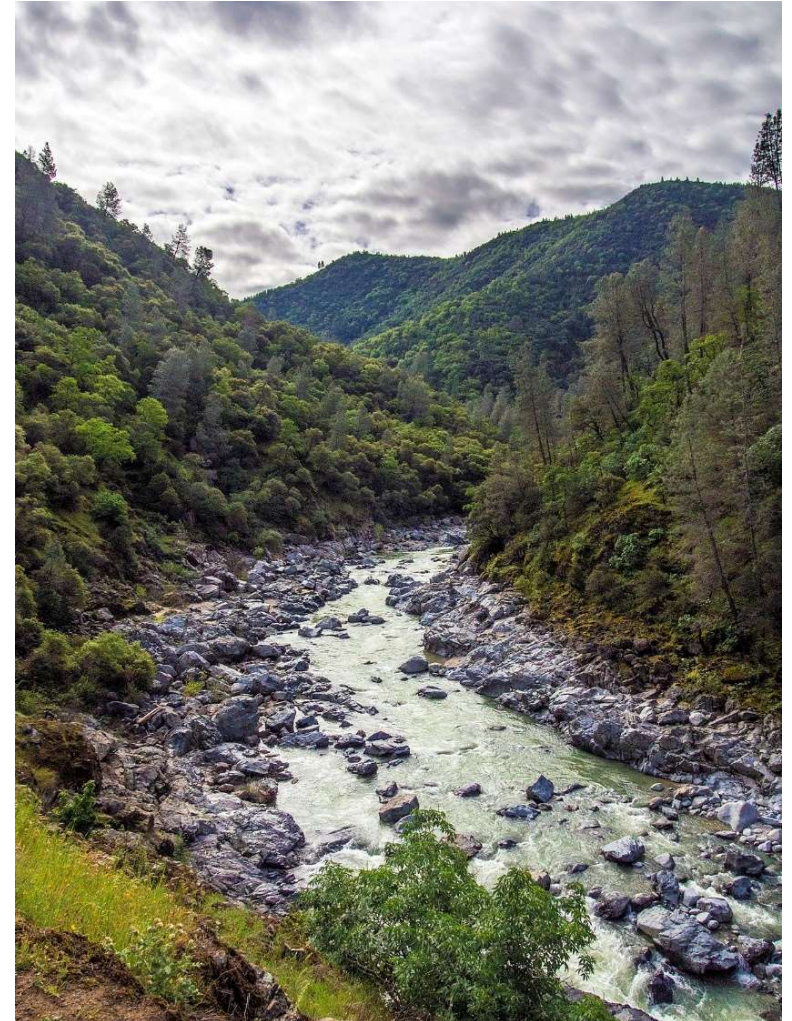
Agenda

Refresher: What is the Forest Resilience Bond and what are our goals?

Why Private Capital?

Introducing: The Yuba Project

Next Steps and Lessons Learned



Yuba River

Goals of the Forest Resilience Bond

**Provide
resources to
support
collaboration**

**Accelerate
pace and
scale of
restoration**

**Support
public land
management**

SOCIAL

- Rural job creation & community development
- Community resilience
- Protected lives & homes

ENVIRONMENTAL

- Reduced fire severity
- Protected water resources
- Carbon storage
- Protected habitat

FINANCIAL

- Value for beneficiaries
- Taxpayer and ratepayer savings
- Investor returns

The Forest Resilience Bond Ecosystem



Project Partners



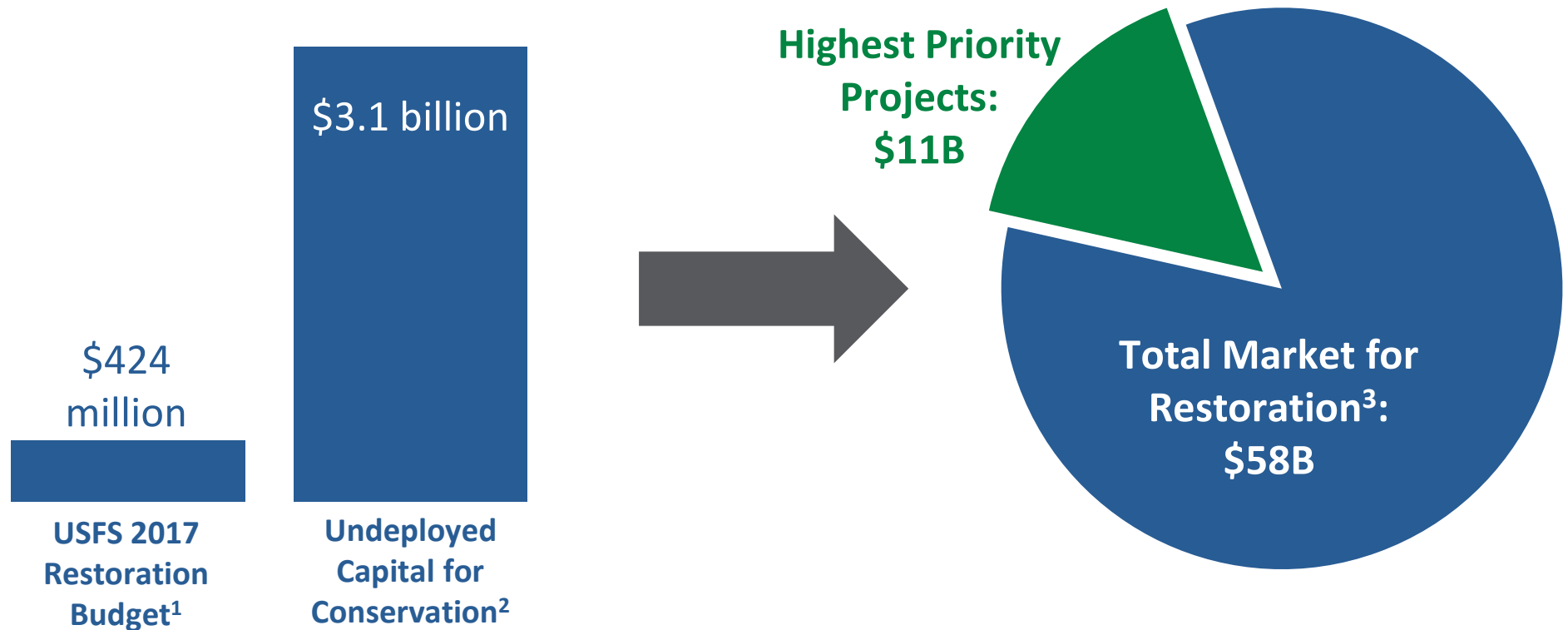
Research Partners



Grant & In-Kind Funders



Opportunity for Private Capital



Advantages of Private Capital

Infusion of capital

Cost sharing

Larger projects

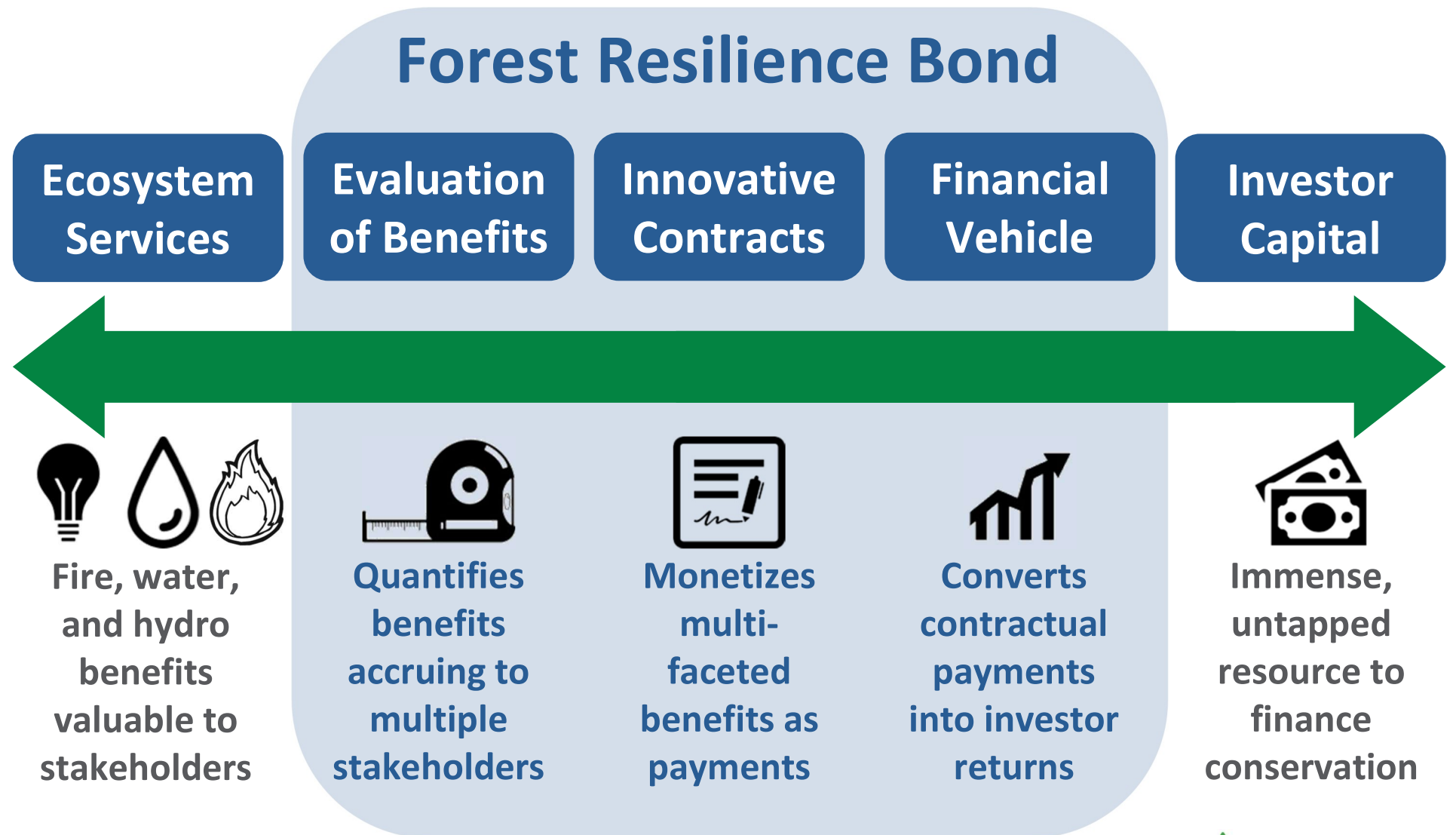
Project catalyst

Ex-post payments

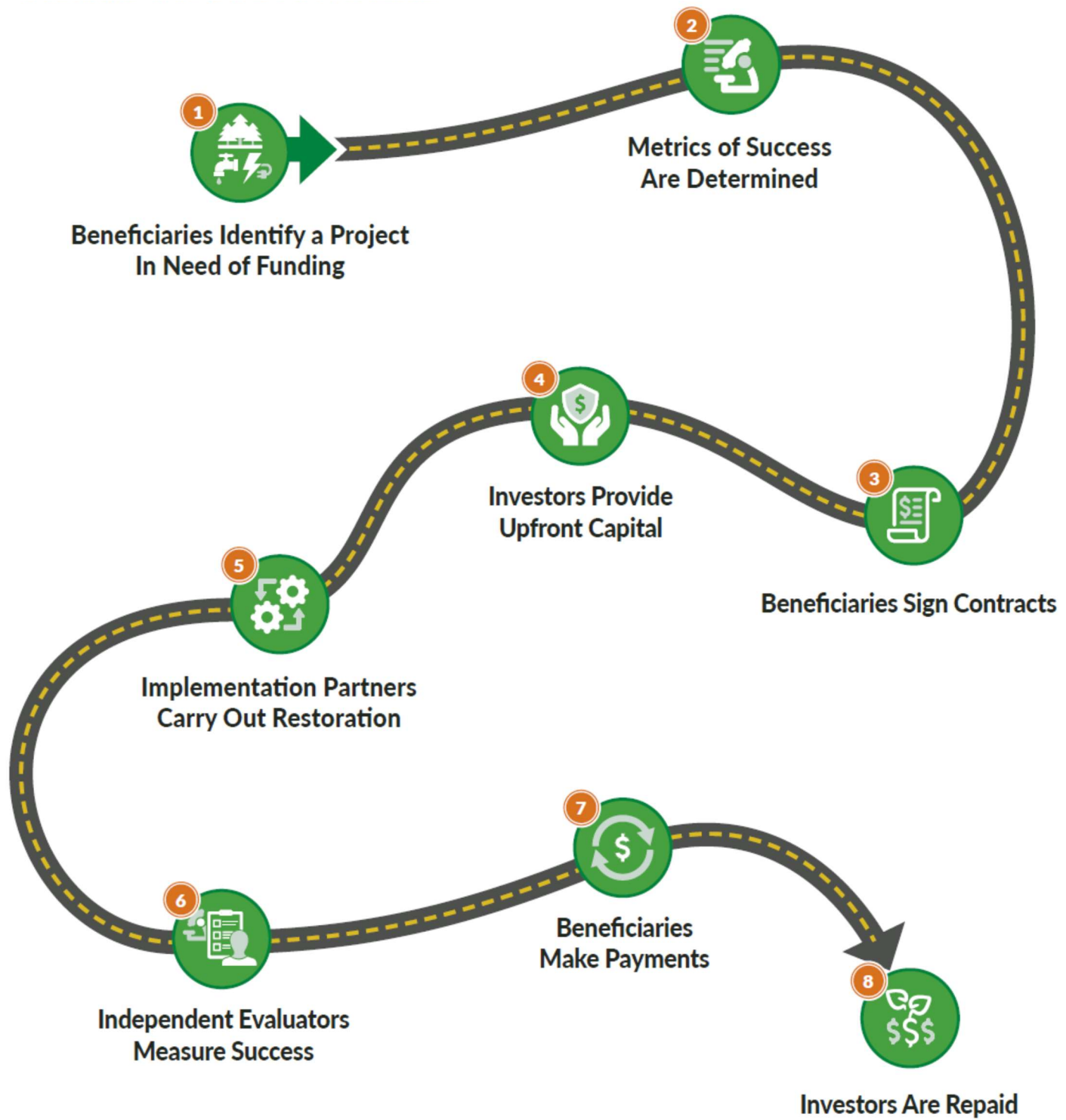
1. [USFS Fiscal Year 2017 Budget Overview](#) (\$40 million for CFLRP and \$384.1 million for hazardous fuel reduction)
2. [State of Private Investment in Conservation 2016](#) (\$3.1 billion of investor capital undeployed at end of 2015)
3. [USFS Fiscal Year 2017 Budget Overview](#) (58 million acres at "high or very high risk of severe fire" @ \$1,000/acre)



Connecting Investor Capital to Conservation



How the FRB Works



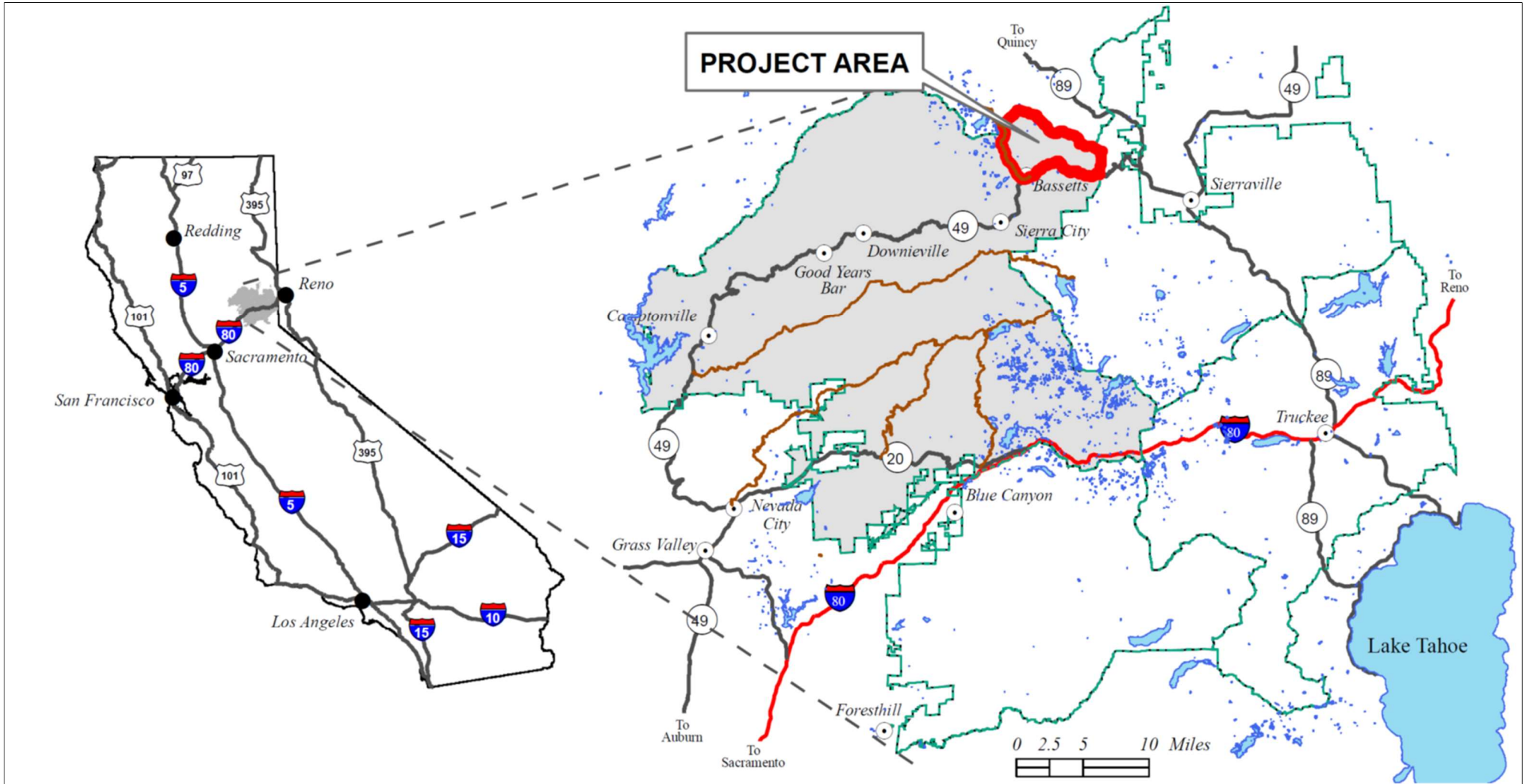
The Yuba Project, Tahoe NF



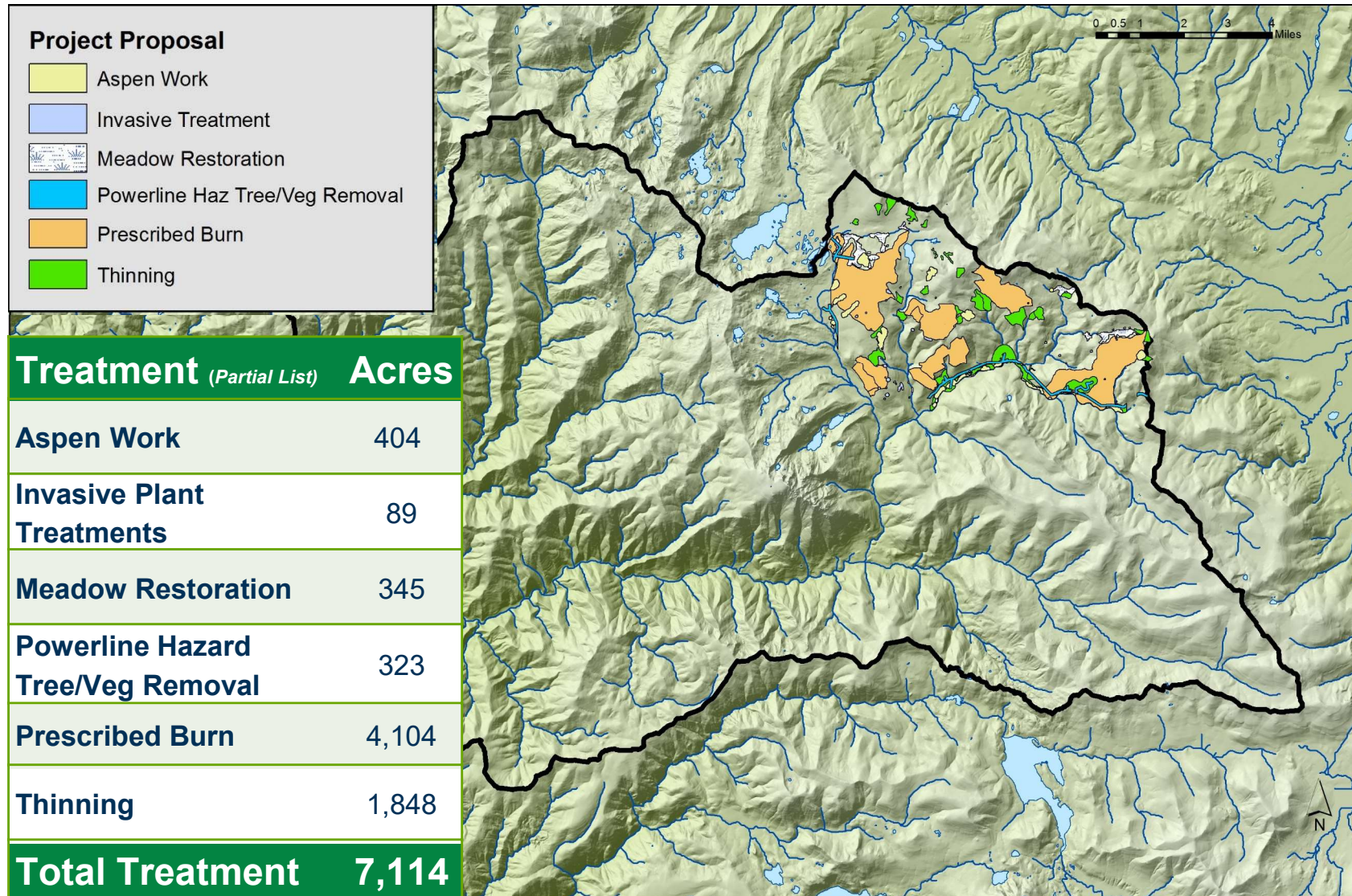
Yuba Project Overview

Location	Northern CA - North Yuba River Watershed, Tahoe National Forest
Project type	Primarily fuels reduction with some meadow restoration, invasive species management, and aspen regeneration
Size	7,114 acres of restoration to protect 15,000 acre area
Land ownership	Public – USFS
Status	Closed on 11/1/2018. Restoration work planned for 2018 – 2022
Total project cost	\$4.6 million (\$4.0 million financed by FRB)
Expected impacts	Wildfire risk reduction, increased water quantity, protected water quality, avoided sedimentation, protected habitat and ecosystems
Payors	CA State (CAL FIRE and SNC grants) and Yuba Water Agency. USFS providing in-kind support

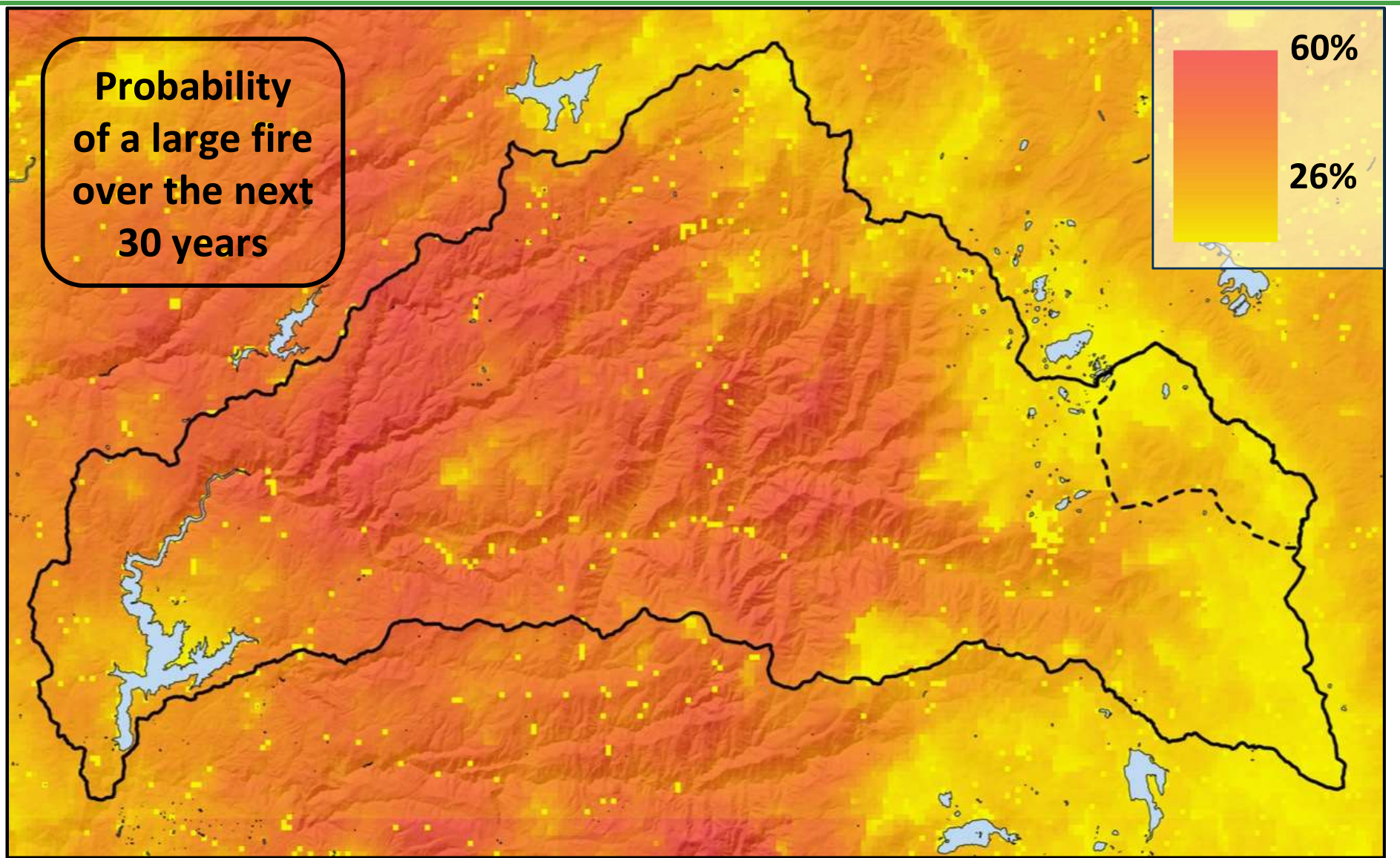
Yuba Project – A Pilot For The North Yuba



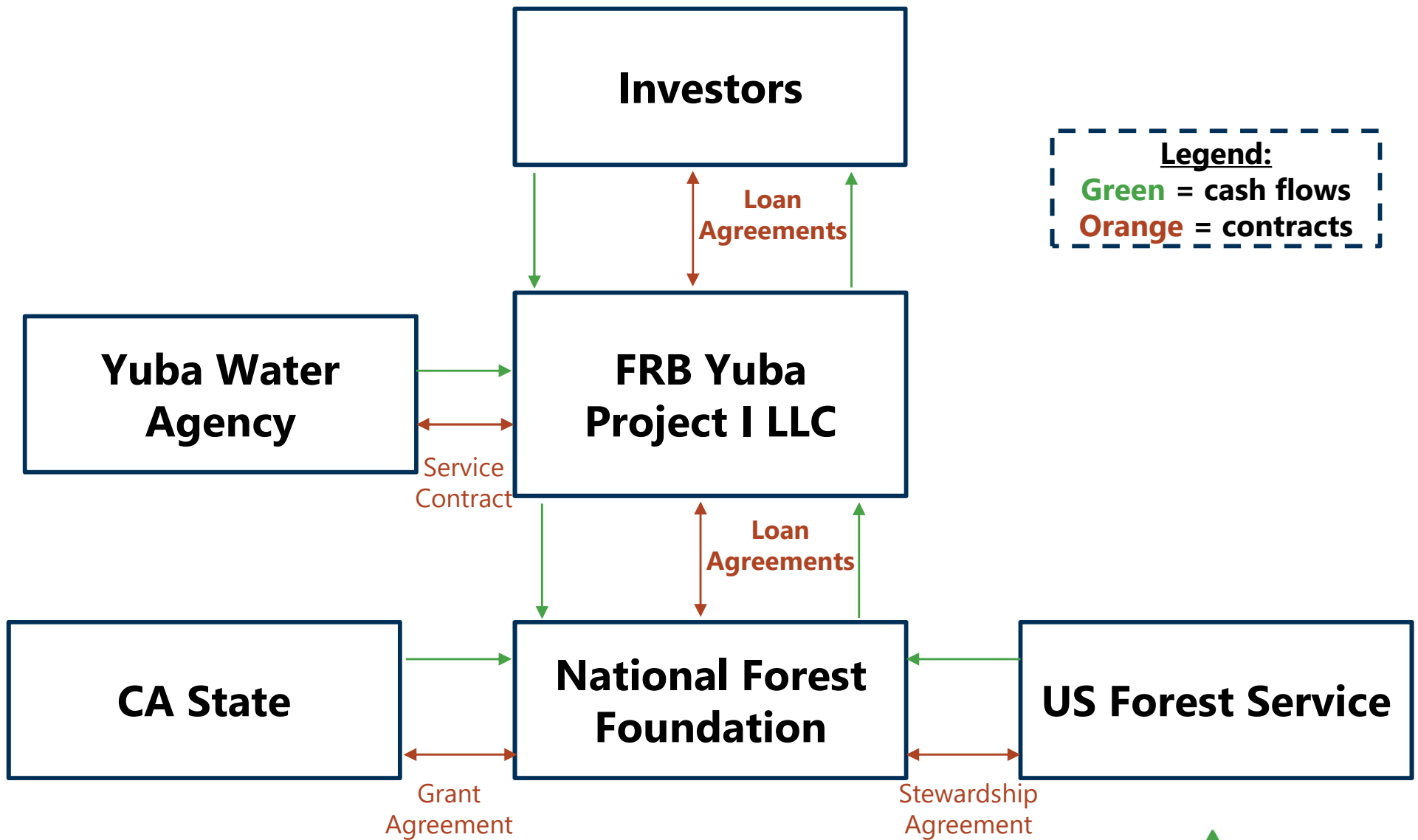
Yuba Pilot Restoration Project



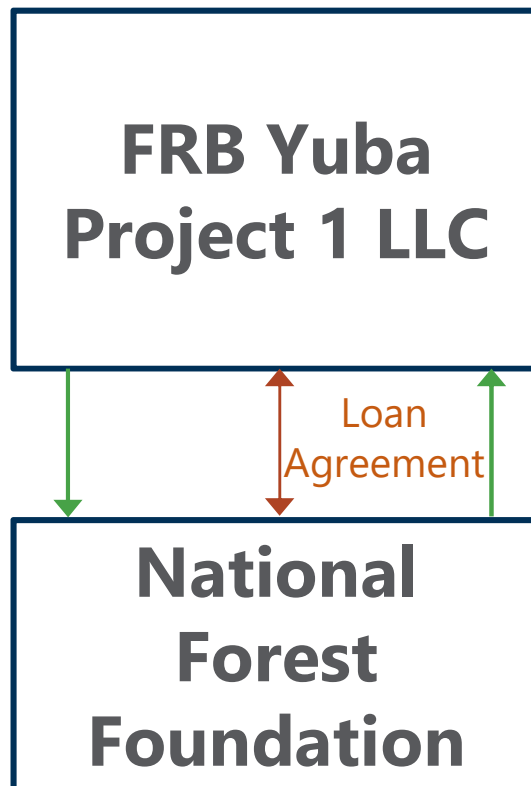
North Yuba Wildfire Risk



Flow of Funds



Role of the Implementation Partner



1

Implementation Partner

Third-party implementation partner ensures proper governance by creating firewall between investors and restoration activities

2

Financial Intermediary

Use of financial intermediary facilitates payments from USFS and state to the FRB

Legend:

Green = cash flows

Orange = contracts

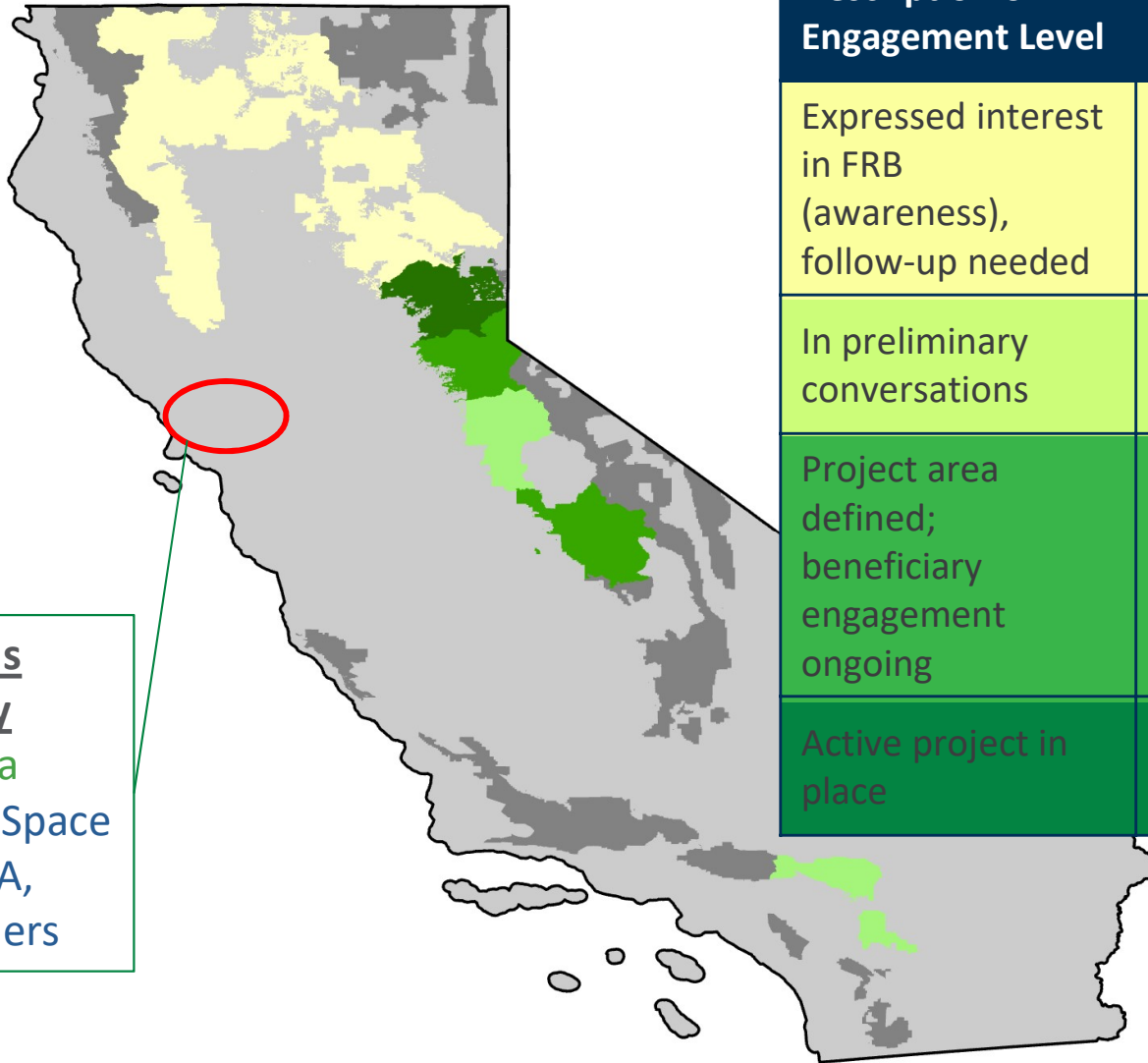
Project Investors



Next Steps & Lessons Learned



Where are we headed in CA?



Description of Engagement Level	National Forests
Expressed interest in FRB (awareness), follow-up needed	5: Mendocino, Plumas, Lassen, Klamath, Shasta-Trinity
In preliminary conversations	2: Stanislaus, San Bernardino
Project area defined; beneficiary engagement ongoing	3: Eldorado, Sierra, Lake Tahoe Basin Management Unit
Active project in place	1: Tahoe

Private Lands Opportunity
 Sonoma Area
 Land Trust/Open Space District, SCWA, scientific partners

Lessons Learned + Next Steps

Working Capital Issues with CAL FIRE grants – SB901 advances help, but more help is needed.

This model can maximize **Matching Funds** for projects, **provide TA** to new utility partners → **head towards fewer, larger projects**

Need: Develop more **high capacity Implementation Partners**

Next Frontier: **Private Lands + BLM Forest Land**





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**FOREST
RESILIENCE
BOND**

Zach Knight

Co-Founder and Managing Partner
zach@blueforestconservation.com