Land Tender™
by vibrant planet

A Cloud-Based Planning and Monitoring Tool

for Collaboratives • Agencies • Organizations

November 2022


We know **fuel treatments** and **prescribed fire** reduces the risk of high intensity wildfire...we just need more **capacity** to increase the **pace and scale...**
JOE FLANNERY
COMMUNICATION SPECIALIST
U.S. FOREST SERVICE

Breaking down Vertical Silos to increase pace and scale of restoration.

More people
✅

More partnerships (with Authority)
✅

Democratize and standardized planning methodologies and tools –and access to them.

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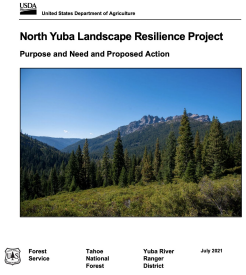
North Yuba

The Tahoe National Forest's GIANT task:

- How much treatment is needed to mitigate significant loss
- Amount of acres treated vs. priority acres treated
- Need for efficiency - the clock is ticking
- A system to determine the highest priority treatment areas
- A system to unbiasedly assess tradeoffs
- A system to apply conventional science
- Create a plan that attracts private investment + grant opportunities
- On a 275,000 acre landscape
- With partners

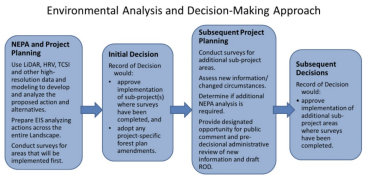
North Yuba


USDA United States Department of Agriculture

North Yuba Landscape Resilience Project

Purpose and Need and Proposed Action

Forest Service | Tahoe National Forest | Yuba River Ranger District | July 2021



Lidar, HRV, and Other High-Resolution Data and Modeling to Develop Project

Table 1. Strategic assets, resources, and areas (SARAs) within each North Yuba Landscape emphasis area.

Emphasis Area	Strategic Areas, Resources, and Assets	Key Treatment Focus
Infrastructure	structures; emergency service, communication, and power infrastructure	Promoting fire adapted communities
Developed Recreation Site	campgrounds, trails, day use areas, boating and fishing sites, and observation sites	Promoting fire adapted communities
Strategic Fuel Area	critical access roads, fuelbreaks, and community fuel reduction zones (i.e. wildland urban intermix (WUI) defense zones)	Promoting fire adapted communities
Unique Ecological Community	aspen stands, meadows, and fens	Improving water security and conserving biodiversity
Forest Matrix	tall tree/high canopy, old groves, plantations, and other forested areas	Enhancing forest resilience, restoring fire dynamics, and conserving biodiversity

Strategic Areas Resources and Assets = SARAs

Estimating Forest Matrix Treatment Locations

Likely treatment locations in PACs, HRCAs, and other forested areas have been estimated based on the restorative return on investment (RROI) associated with proposed treatments. RROI is the expected change in ecological and societal value over a 10-year planning horizon associated with a

Using Restorative Return on Investment (RROI) to Estimate Treatment Locations

rORSYS was used to determine which sub-project areas to treat first to achieve the highest levels of intended outcomes for this Project based on the priority weighting of the ten TCSI forest resilience pillars for the North Yuba Landscape (Figure 9). Pillar weights displayed in Figure 9 were based on input from the North Yuba Forest Partnership, informed by the Partnership's Memorandum of Understanding and the purpose and need for this Project.

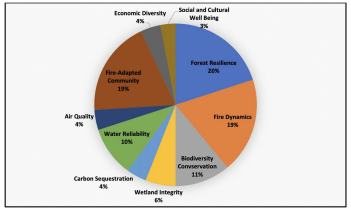


Figure 9. TCSI forest resilience pillar weights for the North Yuba Landscape.

Using Forsys and SARA to Determine Sub-Project Areas

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North Yuba

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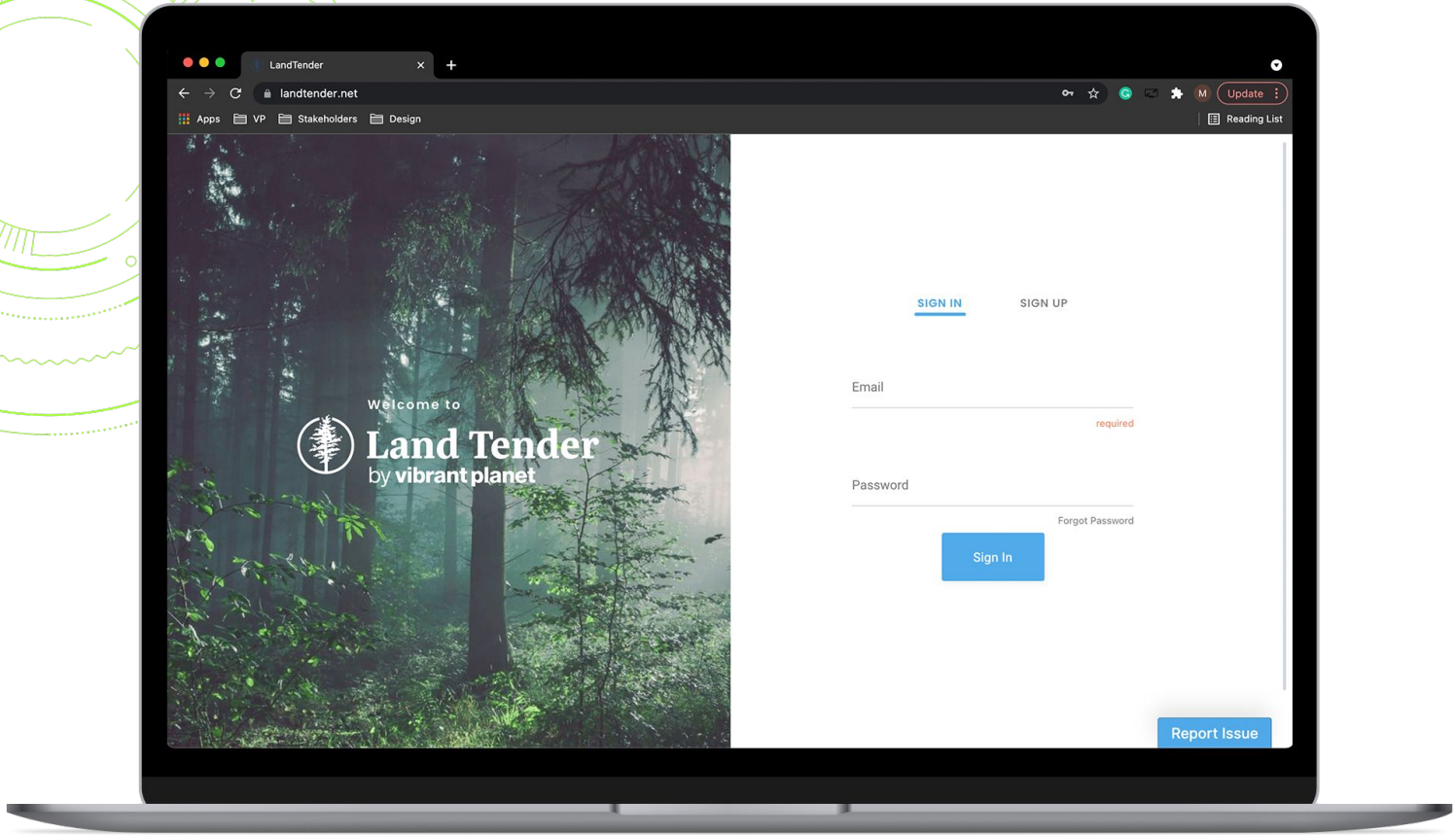

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Land Tender Overview

- Land Tender is a decision support system
- Land Tender is a vessel that incorporates various data and models. The system allows users to complete landscape-level analysis and project prioritizations using those data and models
- Land Tender is a landscape system to address landscape disturbances
- Land Tender was not designed for any one Agency or individual

Science + Land Management

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Science + Land Management + Tech

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Head of Machine Learning
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Mission Locked Hybrid Structure

Mission
Build the data and technological infrastructure to facilitate and unlock funding for the regenerative economy.

VP Data Commons
501c3 Nonprofit

OS Data Repository

Stewards open source data, APIs, & scientific / developer community

Vibrant Planet, Inc.
Public Benefit Corp.

Platform

Data

Applications

Builds visual, data-driven applications for specific resilience building challenges & opportunities, offered with planning & decision support services

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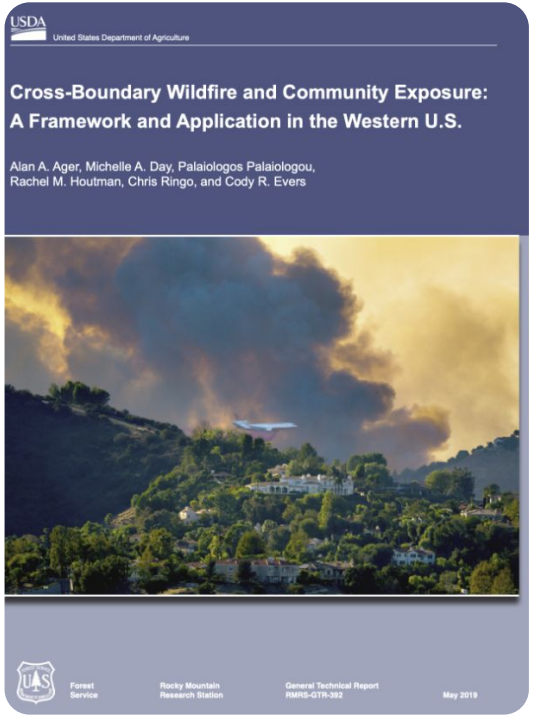
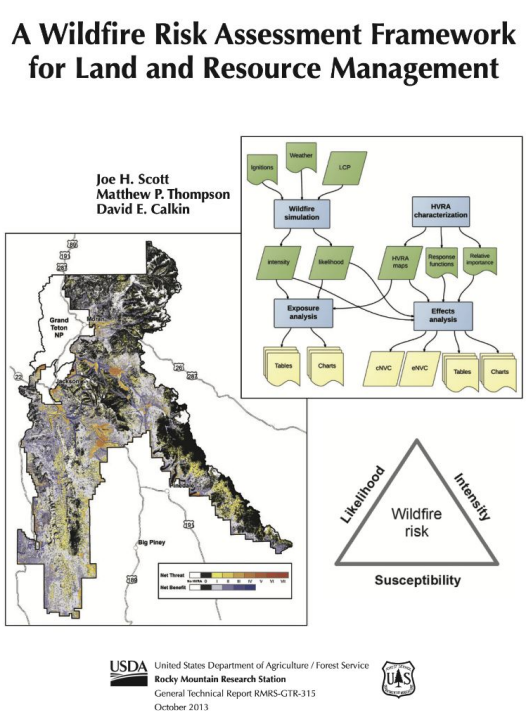
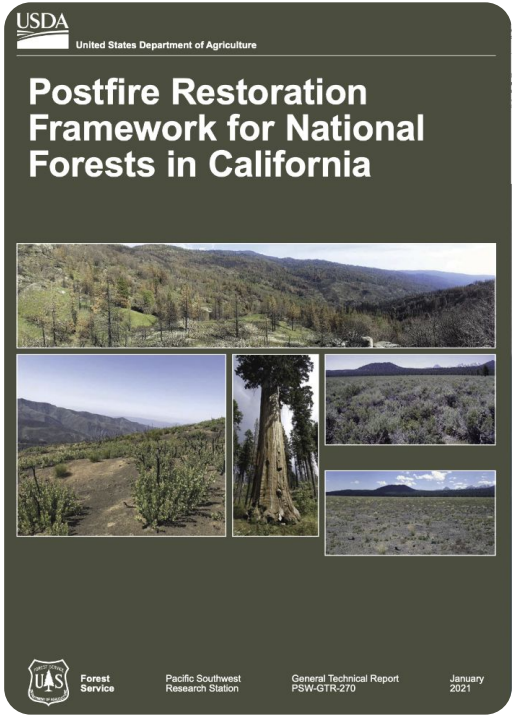
Science-Based







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Forestry Department

- Recreation
- Water
- Carbon

Forester Scott

County Supervisor’s Office

- Homes
- Evacuation Routes
- Utility Infrastructure

Supervisor Tory

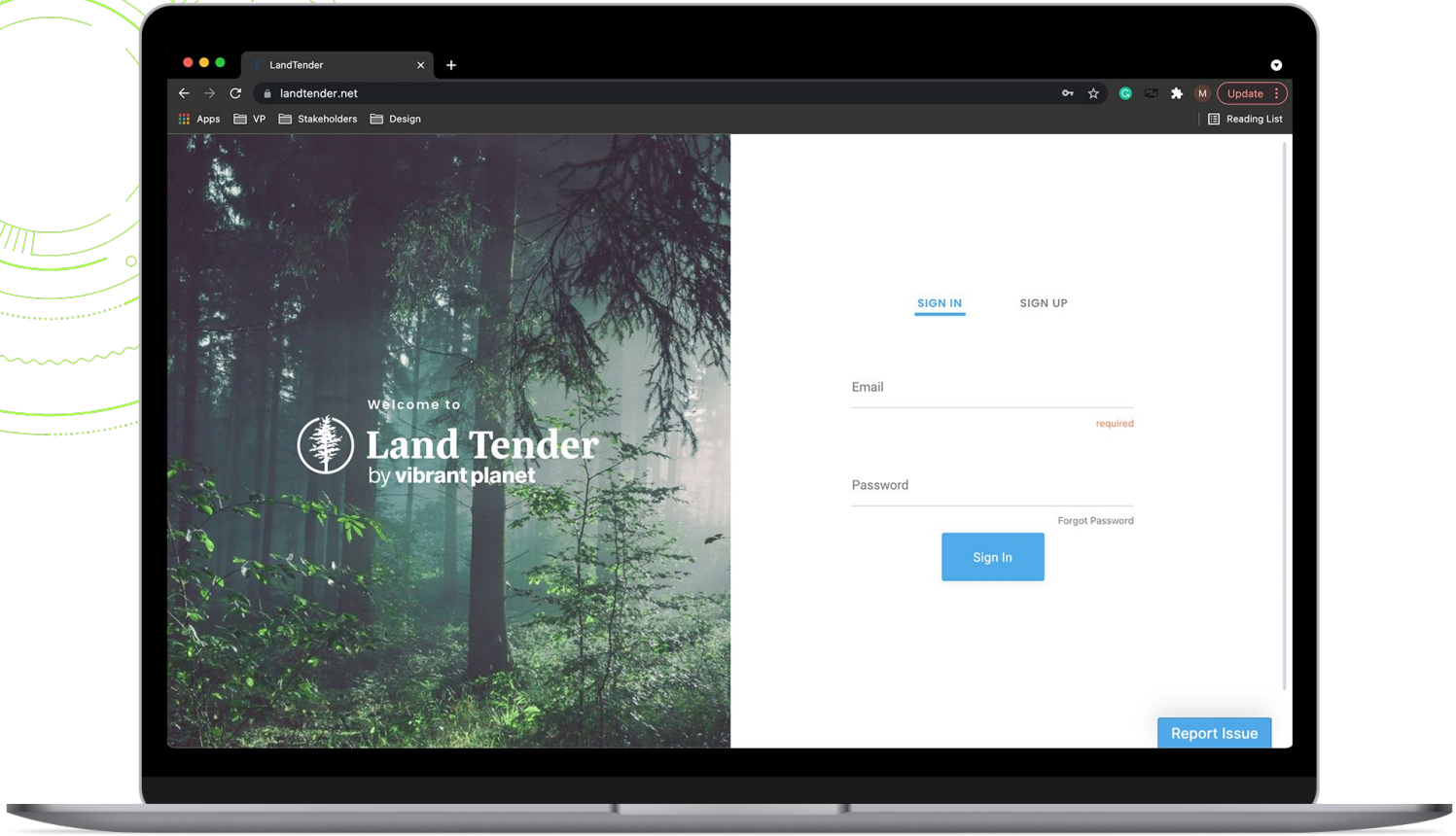
Biodiversity Foundation

- Spotted Owl Habitat
- Aspens & Meadows
- Sierra Nevada Yellow Legged Frog

Biologist Joe

New Collaborative: Multi Jurisdictional Planning

- Create an initial wildfire and forest resilience plan
- Prioritize treatments within plan
- $20m over 10 years



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