

BENEFICIAL FIRE



**Terra Fuego
Resource Foundation**

PROTECTING COMMUNITIES • STRENGTHENING FORESTS
HONORING INDIGENOUS PRACTICES

OUR HISTORY WITH FIRE

AT
TERRA FUEGO,
OUR MISSION
IS TO REPLACE
CATASTROPHIC FIRE
WITH FREQUENT,
PRESCRIBED
FIRE [RX FIRE]
BY PRIORITIZING
COMMUNITY
RESILIENCY AS
THE FOUNDATION
FOR LANDSCAPE
SCALE FREQUENT
FIRE ECOLOGICAL
RESTORATION



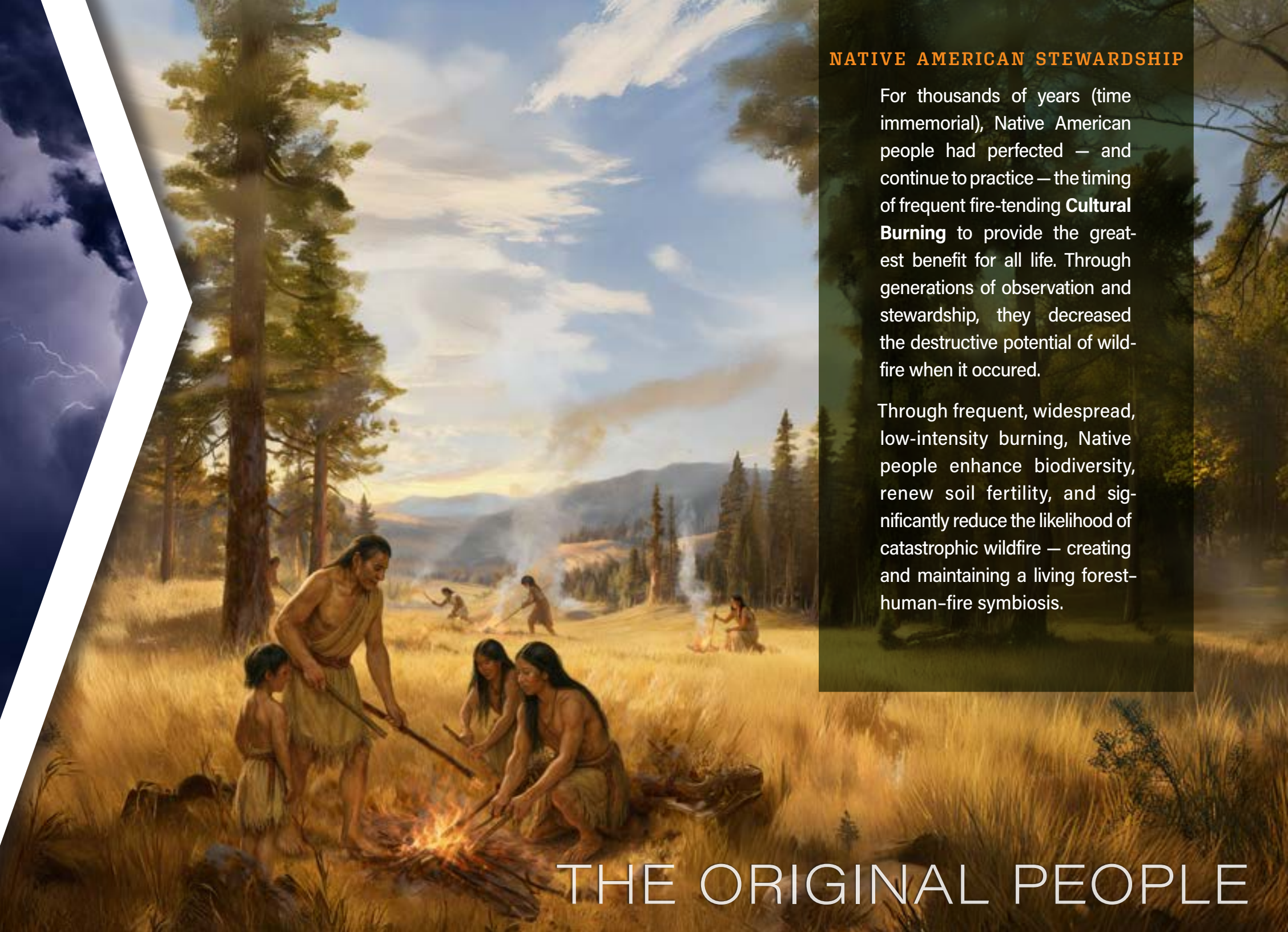
NATURE'S METHOD



NATURAL LIGHTNING

For millions of years, before humans inhabited California, naturally occurring lightning fires burned throughout the entire landscape. These fires generally burned during the spring, summer and fall, and provided both benefit and destruction due to the random timing of these fires. The Sierra Nevada mountains receive approximately 10,000 lightning strikes per year. Consequently, plants and animals evolved to depend on the frequency of these fires.





NATIVE AMERICAN STEWARDSHIP

For thousands of years (time immemorial), Native American people had perfected — and continue to practice — the timing of frequent fire-tending **Cultural Burning** to provide the greatest benefit for all life. Through generations of observation and stewardship, they decreased the destructive potential of wild-fire when it occurred.

Through frequent, widespread, low-intensity burning, Native people enhance biodiversity, renew soil fertility, and significantly reduce the likelihood of catastrophic wildfire — creating and maintaining a living forest-human-fire symbiosis.

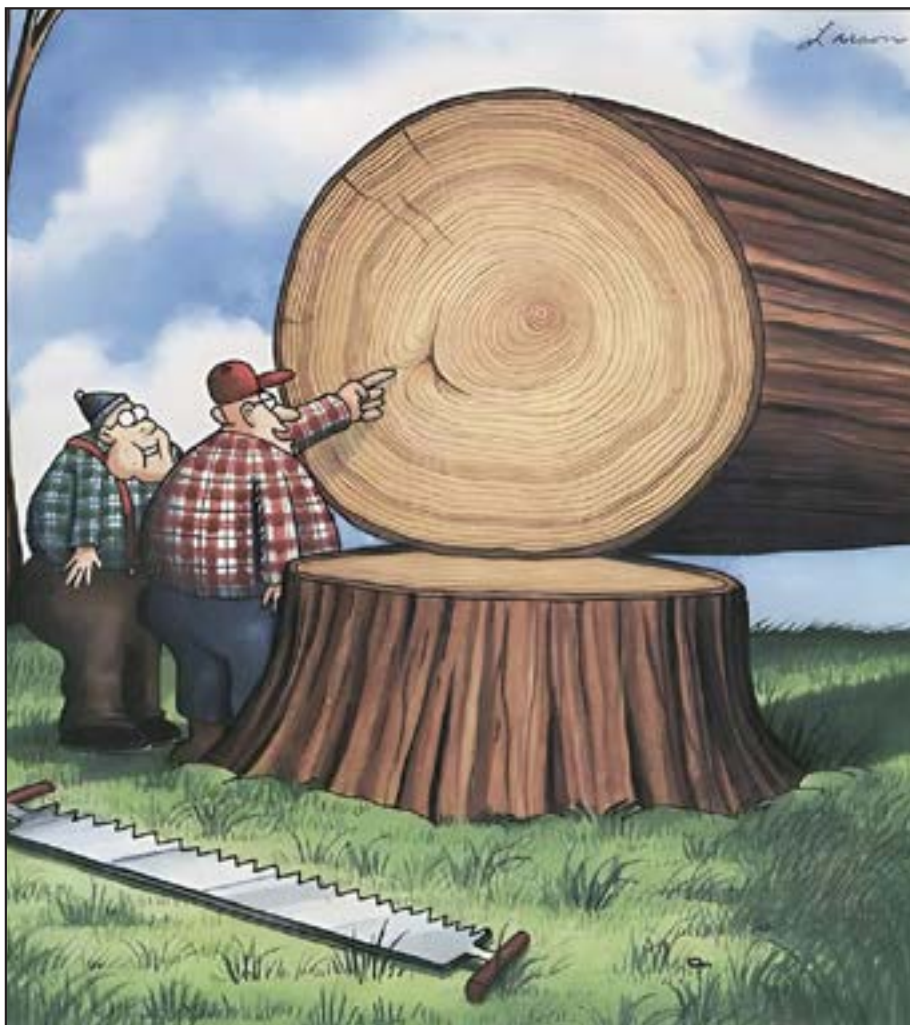
THE ORIGINAL PEOPLE

THE WAR ON FIRE

MISMANAGEMENT Over the past 150 years, settlers worked to exclude fire from the landscape — eliminating a critical fire stewardship process that had kept California's forests healthy for millennia. Logging and strict Fire Suppression policies disrupted the natural fire cycle. Without regular, low-intensity burns, forests became overcrowded and choked with fuel, setting the stage for today's catastrophic wildfires.



THE WAR ON FIRE



“AND SEE THIS RING RIGHT HERE, JIMMY?
THAT’S ANOTHER TIME WHEN THE OLD FELLOW
MIRACULOUSLY SURVIVED SOME BIG FOREST FIRE.

—GARY LARSON”

WHY PRESCRIBED FIRE MATTERS

WHY PRESCRIBED FIRE? Wildfires are inevitable — they are part of California's natural rhythm. We now know that permanently excluding fire is impossible. Fire will eventually happen, and the longer fire is absent, the greater the potential for destruction — including the loss of life, community, and forest.

When we prescribe fire frequently, close to our communities, we provide the greatest resilience for the most vulnerable areas and prepare for landscape-scale **Prescribed Fire [Rx Fire]** restoration that offers true resilience by limiting fuel accumulation.

Smoke from Rx Fire is short in duration and made up of organic material. In frequent-fire-prone landscapes, smoke is a natural and fundamental part of a global carbon cycle, decomposing organic material and recycling soil nutrients. Smoke will happen either during wildfires or Rx Fires.

If laws and regulations continue to restrict Rx Fire, they are, in turn, managing for catastrophic wildfires — because all fuel is latent smoke. Wildfires will eventually happen again and again, in perpetuity.

All native plants and trees have evolutionarily adapted mechanisms that depend on frequent Rx Fire. For example, pine trees drop needles to encourage fire as frequently as possible. Frequent fire selects for genetic fitness, species diversity, and regulates tree density. Most importantly, frequent Rx Fire greatly reduces the chances for catastrophic fire.



TWO PATHS FORWARD

Since permanently suppressing and excluding fire is not possible, society faces two choices for the future: continue suppressing and excluding fire until fuels accumulate and catastrophic wildfire inevitably returns, or learn to burn more frequently and reduce the buildup of potential energy in forest fuels while restoring the natural fire cycle that protects communities, forests, and wildlife.

TIME ON TASK

The more we work with fire, the more we learn how it behaves. Experience allows practitioners to better predict how fire will respond under different conditions. This growing knowledge benefits plants, wildlife, soil, and water

retention while helping Burn Bosses and Cultural fire practitioners develop plans to safely use fire — our most powerful land management tool.

FIRE, WEATHER & FUELS

Fire practitioners learn to read wind patterns, atmospheric stability, humidity, temperature, and fuel conditions including live and dead fuels, fuel size, arrangement, and continuity. Good burning happens when weather and fuels align favorably. Because both fuels and weather are constantly changing, burning requires careful observation and experience.

BURNING CLEAN & SAFE

Fuel moisture plays a major role in smoke production. When fuels are

sufficiently dry, combustion is more complete, producing less smoke and more convective heat that lifts smoke higher into the atmosphere where it disperses.

MANAGING RISK

Prescribed burns are led by certified Burn Bosses operating under approved Burn Plans. California SB 332 recognizes the public benefit of Prescribed Fire and establishes a gross-negligence liability standard for qualified practitioners. Through professional planning, insurance coverage, and participation in the state Prescribed Fire Claims Fund, the risk of escaped fire remains very low.

THE PRESCRIBED FIRE PROCESS

1. PROJECT DEVELOPMENT

- Determine whether the project supports community resilience and landscape fire restoration

2. PREPARATION

- Preparation (done prior to ignitions)
- Cut fire line
- Pull material away from the fire line

3. PLANNING

- Make a Map
- Develop a **Burn Plan** (legal living document)
- Define Goals & Objectives
- Establish a **Fire Prescription**
 - Wind speed & direction
 - Temperature & Relative Humidity (RH)
 - Probability of ignition
- Create an **Ignitions Plan**
- Create a **Holding Plan**
- Develop a **Contingency Plan**
- Complete Go/No-Go Checklist
- Establish **Communications Plan**
- Establish **Medical Plan**

4. PERMITTING

- Obtain required permits from Air Quality Management District (AQMD) and CAL FIRE

5. ORGANIZATION

- Mobilize personnel and equipment

6. IMPLEMENTATION

- Conduct operational briefing
- Light test fire
- Continue ignition operations

7. MONITORING

- Patrol and secure perimeter
- Continue monitoring until no heat or smoke is detected for three consecutive days

THE STRATEGIC PLAN FOR FREQUENT FIRE RESTORATION

STANDARD STRATEGIC WILDLAND-URBAN INTERFACE (SSW)

Across agencies and jurisdictions, the Wildland-Urban Interface (WUI) is defined in many different ways. These varying definitions often lead to fragmented approaches to wildfire resilience and ecological restoration.

The **Standard Strategic Wildland-Urban Interface [SSW]** provides a unified framework that prioritizes restoring the natural process of frequent fire while protecting communities first.

A key component of this strategy is the **Community Encompassing Fireline**. Rather than addressing

wildfire risk parcel by parcel, this approach establishes a strategic fuel break that surrounds entire communities. By containing our communities, we break the continuous fuel connection between large wildland landscapes and the built environment.

Community Encompassing Firelines follow the contour of the land and operational fireline suitability rather than property boundaries. They may incorporate

existing features such as roads, railroads, trails, ridges, or other natural barriers, typically ranging from 50 to 2,000 feet from homes and critical infrastructure depending on terrain.

This community-first approach creates defensible communities while enabling the safe reintroduction of **Prescribed Fire [Rx Fire]** across the surrounding landscape.

[SSW] BENEFITS

1. SEPARATES COMMUNITIES FROM THE CONTINUOUS LANDSCAPE FUEL, ALLOWING FOR MACRO-SCALE PRESCRIBED FIRE

2. BUILDS COMMUNITY COHESION — “WE ARE IN THIS TOGETHER”

3. REDUCES RISK WHEN PRESCRIBING FIRE WITHIN THE [WUI]

4. PROVIDES IMMEDIATE PRE-WILDFIRE SUPPRESSION INFRASTRUCTURE AND PROTECTION



PRESCRIBED FIRE (RX FIRE)

A planned and carefully managed fire intentionally applied to the landscape under specific weather and fuel conditions to achieve ecological and safety objectives.



LANDSCAPE-SCALE RX FIRE Using Rx Fire across large connected areas of forest and watershed so the natural fire cycle can function again. **Micro-scale Rx Fires** are generally less than 2,000 acres and are most valuable adjacent to and within a Community Encompassing Fireline. **Macro-scale Rx Fires** are generally greater than 2,000 acres and usually occur outside a Community Encompassing Fireline.

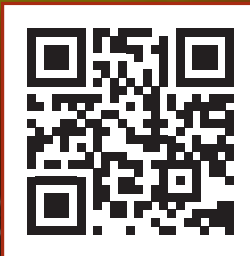
WILDLAND-URBAN INTERFACE (WUI) *pronounced "Woo-Wee"*. The area where communities and wildland meet. Interface is where homes and infrastructure stop and wildland begins. Intermix is where development has spread into a frequent fire-dependent landscape.

THE STANDARD STRATEGIC WILDLAND-URBAN INTERFACE (SSW) A conceptual plan to restore the frequent fire ecology of both micro-scale units around communities and macro-scale units in between communities.

CLUSTER COMMUNITY A community with a well-defined Wildland-Urban Interface [WUI].

COMMUNITY ENCOMPASSING FIRELINE Fireline that surrounds an entire community.

CULTURAL BURNING Intentional fire stewardship practiced by Indigenous communities using traditional ecological knowledge to maintain healthy landscapes, support cultural resources, and reduce hazardous fuels.



SCAN FOR MORE INFORMATION ON
OUR APPROACH TO RESTORING BALANCE



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