OVERVIEW OF THE CALIFORNIA 2020 FIRE SEASON AND UPDATES ON THE POINT REYES WOODWARD FIRE

One Tam Virtual Summit on Climate: Change and Resilience
October 8, 2020
ONE TAM SUMMIT ON CLIMATE: CHANGE AND RESILIENCE

OVERVIEW

PRESENTATION OUTLINE

- 2020 FIRE SEASON SUMMARY
- FIRE ECOLOGY 101
- WOODWARD FIRE IN DETAIL
2020 CA FIRE SEASON TO DATE

- >4 MILLION ACRES BURNED
- ESTIMATED 90 MILLION METRIC TONS CARBON EMITTED
- >1 BILLION IN SUPPRESSION COSTS
- IMMEASURABLE HUMAN IMPACTS
**FIRE REGIME:** The pattern of how fire burns in a given ecosystem

- **BISHOP PINE FOREST**
  - High severity
  - Low frequency

- **MARITIME CHAPARRAL**
  - Fire regime

- **SIERRAN MIXED CONIFER FOREST**
  - Low severity
  - High frequency

- **REDWOOD FOREST**
  - Can tolerate a range of severity & frequency
TENDING THE WILD

NATIVE AMERICAN KNOWLEDGE AND THE MANAGEMENT OF CALIFORNIA'S NATURAL RESOURCES

M. KAT ANDERSON
“The grass was burned every year. The fires were started and allowed to burn in every place. Burning was to make the weeds grow better and to keep down the brush.” - Pomo Indian oral history

“the grass and brush wood on this headland had been lately burned down so that I had little opportunity here to augment my botanical collection...” – Menzies 1793
Approximately 1.8 million ha burned annually in California [pre-1800]. Skies were likely smoky much of the summer and fall in California during the [pre-1800] period.

Stephens et al 2007
AUGUST 15 — 17 LIGHTNING EVENT:
> 7,000 STRIKES
> 350 NEW FIRES
• DISCOVERED ON MONDAY 8/17 — APPROXIMATELY 5 ACRES

• TUESDAY 8/18: 700 ACRES

• WEDNESDAY 8/19: 2000 ACRES

• SATURDAY 8/22: TYPE 1 INCIDENT MANAGEMENT TEAM ARRIVES; 2500 ACRES

• MUCH OF REMAINING GROWTH DUE TO BURN OUT; NOW 5,011 ACRES
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POINT REYES WOODWARD FIRE
### Soil Burn Severity Based on 9/14 Burned Area Reflectance Classification Data

<table>
<thead>
<tr>
<th>Soil Burn Severity</th>
<th>Acres</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Unburned</td>
<td>1,486</td>
<td>30%</td>
</tr>
<tr>
<td>Low</td>
<td>1,871</td>
<td>37%</td>
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<tr>
<td>Moderate</td>
<td>1,230</td>
<td>25%</td>
</tr>
<tr>
<td>High</td>
<td>424</td>
<td>8%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,011</strong></td>
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POINT REYES WOODWARD FIRE

Image credit: NPS
Vegetation Communities within Burned Area:

- 61% Douglas-fir forest
- 23% Coastal scrub
- 8% Ceanothus

Approximately 2000 acres had previously burned in Vision Fire.
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POINT REYES WOODWARD FIRE
KEY ELEMENTS OF POST-FIRE RESPONSE

• REPAIR DOZER LINES, HAND LINES, DROP POINTS, ETC

• STABILIZE CULTURAL SITES

• HAZARD TREE SURVEILLANCE & MITIGATION

• TRAILS & FENCE REPAIR

• INVASIVE PLANT MANAGEMENT

Fire Suppression Repair Plan
Woodward
CA-RNP-12009
September 2020
Prepared by Cedar Drake, Land READ

Interagency Burned Area Rehabilitation Guidebook
Interpretation of Department of the Interior 620 DM 3 For the Burned Area Rehabilitation of Federal and Tribal Trust Lands Version 1.3
FIRE SEASONS ARE DIFFERENT THAN THEY WERE 20 YEARS AGO. WHY?

- 100 YEARS OF FIRE SUPPRESSION & “FIRE DEFICIT” IN SOME REGIONS
- EXPANDING DEVELOPMENT AND INCREASED WILDLAND URBAN INTERFACE
- CLIMATE CHANGE, LONGER FIRE SEASONS AND DRIER FUELS
WIND DRIVEN FIRES

FUELS DRIVEN FIRES
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OTHER 2020 COASTAL FIRES

CZU Complex Fire
86,509 acres
Santa Cruz & San Mateo Counties

Walbridge Fire
(Part of LNU Complex)
55,256 acres
Sonoma County
Fire Regime: Long term patterns in fire frequency, size, severity & seasonality in a given location or ecosystem.
FIRE ECOLOGY 101

Abatzoglou et al. 2016