“From bad to worse”

from The Sierra Nevada Conservancy’s The State of the Sierra Nevada’s Forests (2017)

Dr. Kate Wilkin
December 17, 2017
Oroville, CA
Annual average acres burnt in California

Adapted from
Annual average acres burnt in California

Adapted from
Tree death –
Insects & Disease

Tree death - Wildfire

Structure loss - Wildfire
Tree death –
Insects & Disease

Dense trees

Tree death - Wildfire

Threat
Bear Creek Fire Guard Station
Plumas National Forest, Sierra Nevada

1915

What should my forest look like?
Bear Creek Fire Guard Station
Plumas National Forest, Sierra Nevada

2002

What should my forest look like?
Bear Creek Fire Guard Station
Plumas National Forest, Sierra Nevada

What should my forest look like?
Dense trees

Tree death - Wildfire

Tree death - Insects & Disease

Threat

Solutions
Increase the pace and scale of forest thinning:

- Make resilient forest structure thru timber harvest, mechanical treatments, and prescribed fire

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Increase the pace and scale of forest thinning:

- Make resilient forest structure thru timber harvest, mechanical treatments, and prescribed fire
- Maintain treatments with prescribed fire, grazing, timber, and biomass products
What should my forest look like?
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What?  Reduce grasses and shrubs, and conifers <1 year of age
- **What?**
  - Reduce grasses and shrubs, and conifers <1 year of age
- **Where?**
  - Timber plantations and timber production areas
  - Fuel breaks near communities
  - Research needed on browse effects on forest regeneration after high severity fire
- **What?**
  - Reduce grasses and shrubs, and conifers <1 year of age

- **Where?**
  - Timber plantations and timber production areas
  - Grass understory in fuel breaks near communities
  - Research needed on browse effects on forest regeneration after high severity fire
  - Strategic fuel reduction treatments
Thank you for your time!

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Livestock Grazing as a Forest Management Tool

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Forest Grazing Research

UC Rangelands Team

- Adaptive Management
- Sensitive Habitat (e.g. Aspen, Toads)
- Meadow Health
- Water Quality
Prescribed Grazing

Grazing implemented to achieve specific goal(s)

1. Type of livestock (e.g., cattle, sheep, goats)
2. Number of livestock (stocking density – head/acre).
3. Duration of grazing (stocking rate – head/acre/year).
4. Seasonal timing of grazing (e.g., spring, summer, etc).
5. Frequency of grazing (e.g., 1X, 2X per growing season).
6. Spatial distribution of grazing (e.g., fences, water).
Sheep & Goat Grazing as a Forest Management Tool

- Intensive Management
- Browse on everything (Brush and Grasses)
- Fuel Breaks
- Cost prohibitive
- Smaller scale
Cattle Grazing as a Forest Management Tool

- Forest Setting & Urban Setting
- Landscape Maintenance
- Grass and shrubs
- Tree-establish for timber
- Wildlife Habitat
- Research
Decrease in Grazing

Change in BLM Authorized-Actual Use AUMs
- +4 to -7%
- -8 to -20%
- -21 to -31%

Change in USFS Authorized-Actual Use AUMs
- +10 to -4%
- -5 to -27%
- -28 to -67%
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