

Prescribed Herbivory for Vegetation Treatment Projects

This document has been produced by the Range Management Advisory Committee (RMAC) to raise awareness of the use of prescribed herbivory amongst Cal Fire Vegetation Management Program (VMP) Foresters and others contemplating fuel reduction projects consistent with the Vegetation Treatment Program Environmental Impact Report (VTP EIR). The VTP EIR contemplates using a combination of prescribed fire, mechanical treatments, manual treatments, prescribed herbivory, and herbicides to meet the goals and objectives of the program. The information included in this document should aid the VMP Foresters in identifying environmental conditions where prescribed herbivory may be the best treatment alternative in terms of cost and environmental impact to meet the projects objectives.

Prescribed herbivory as envisioned under the VTP EIR is the intentional use of domestic livestock to remove, rearrange or convert vegetation on wildlands to reduce the costs and losses associated with wildfires and to enhance the condition of forests, rangelands, and watersheds¹. The types of domestic livestock considered include cattle, horses, sheep and goats. Combinations of these animals can be effective in creating fuel breaks in grass and shrub fuel types, and maintaining fuel breaks in grass, shrub and timber fuel types. Effective use of livestock requires the appropriate combination of animals, stocking rates, and timing.

Site Evaluation

What information needs to be gathered prior to designing a grazing management plan?

1. Targeted species
2. Fuel characteristics including species composition, height, diameter, density, ...
3. Environmental characteristics including proximity to watercourses, wildlife habitats of concern, desired vegetation, weed species, neighbors, zoning issues, ...
4. Infrastructure available including access, water, fencing, ...
5. Project size – is there a minimum scale that makes economics of move in/out viable

Animal Characteristics

What are the specific characteristics of cattle, horses, sheep and goats that are important for the VMP Foresters to know when considering a prescribed herbivory project?

Define grazing vs browsing

List each animal and discuss

1. Foraging habits and typical vegetation types where they are utilized
2. Production rates (lbs/day requirement)
3. Infrastructure needed – road access, staging areas, fencing, mineral blocks, watering site, herder, etc
4. Typical combinations and stocking rates (Ex. Sheep generally paired with goats for shrub fuel types, a typical flock of sheep contains XX animals)
5. Special concerns – Toxic plants, , etc

Advantages and Benefits

Prescribed herbivory can offer a variety of benefits in comparison to other proposed vegetation treatments included in the VTP EIR. Consider using domesticated livestock in your project when the following concerns arise:

- Air Quality (compared to fire)

¹ VTP EIR Chapter 2 – Proposed Program.

http://www.bof.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_vtpeir/ Accessed 8/22/14.

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- Noise (compared to mechanical)
- Proximity to structures (compared to fire and mechanical)
- Social acceptance (compared to herbicides)
- Soil compaction and surface disturbance (compared to mechanical)
- Noxious weeds (compared to fire and mechanical)
- Residual fuel (compared to hand, mechanical, and herbicides)
- ...

Limitations

What are the environmental or social constraints that may make prescribed herbivory and inappropriate treatment to consider?

- Treatment of dead woody fuels and slash
- Timing of treatment (targeted vegetation life cycle, desired vegetation lifecycle)
- Landscape constraints and minimum management requirements from VTP EIR

Best Management Practices

Things to consider when designing a prescribed herbivory project to minimize or mitigate potential environmental impacts

- Stock watering
- Consultation with CRM – when is this appropriate or required?

Contracting

The following key points should be addressed in a contract with a prescribed grazer.

Prescribed Grazer Contacts

California Wool Growers Association

http://www.woolgrowers.org/targeted_grazing/producer.html Accessed 8/22/14.

Livestock for Landscapes

<http://www.livestockforlandscapes.com/network.htm>

Prescribed Grazing Resources

American Sheep Association. Targeted Grazing: A Natural Approach to Vegetation Management and Landscape Enhancement – A Handbook on Grazing as an Ecological Service. American Sheep Association, 2006.

http://www.woolgrowers.org/targeted_grazing/handbook.html Accessed 8/22/14.

Narvaez, Nelmy. Prescribed Herbivory to Reduce Fuel Load in California Chaparral. University of California, Davis. ProQuest, 2007.