PRESCRIBED HERBIVORY FOR VEGETATION TREATMENT PROJECTS

STATE BOARD OF FORESTRY AND FIRE PROTECTION

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An informational document prepared by the Range Management Advisory Committee: 2025 Update

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This white paper is an update to a document originally published by the Rangeland Management Advisory Committee (RMAC) in 2015. The 2025 revision was developed by the California Wool Growers Association (CWGA) Targeted Grazing Committee, with additional contributions from members of RMAC. Contributors include individuals from Cooperative Extension, academia, state and local government, and the contract grazing industry.

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OVERVIEW

This document was produced by the Range Management Advisory Committee (RMAC) to aid in implementing prescribed herbivory projects by foresters in the Department of Forestry & Fire Protection's (CAL FIRE, or the 'Department') Vegetation Management Program (VMP). It also serves as a resource for private landowners, local governments, and other stakeholders contemplating fuel reduction projects consistent with the California Vegetation Treatment Program[1] Environmental Impact Report (CalVTP EIR).[2] The information included in this document should aid VMP Foresters in identifying environmental conditions where prescribed herbivory may be the best treatment alternative in terms of cost and environmental impact to achieve the fuel reduction objectives. While aimed at Cal Fire VMP implementation, the information contained herein also applies to anyone seeking to implement a prescribed grazing program alone or in combination with other treatments for vegetation management.

Prescribed grazing, prescribed herbivory, contract grazing, service grazing, precision grazing, and targeted grazing are all approaches to managing vegetation using grazing or browsing animals, each with distinct applications and objectives. These practices rely on the distinct use of management, infrastructure, and technology strategies to achieve specific ecologic, economic, safety, or land-use goals. Under the CalVTP EIR, the intended outcome is to utilize domestic livestock to reduce fuel loads, mitigate wildfire risks, and enhance landscape conditions through strategic grazing practices that integrate advancements in animal management, fencing, monitoring tools, and operational planning.[3]

The primary types of domestic livestock considered for vegetation management include sheep, goats, and cattle, though other herbivores may also be used strategically to achieve similar objectives. In recent decades, sheep and goats have been used more frequently in CalVTP and Wildland Urban Interface (WUI) projects due to their grazing and browsing behaviors, wider dietary preferences, and agility in difficult terrain. Small ruminants have higher labor demands which confer more precision in addressing specific vegetation and management goals. Additionally, their shorter reproduction cycle provides greater flexibility for seasonal prescribed grazing.

Cattle have been used more often in larger, open landscapes such as grasslands and woodlands due to their diet preferences and potential for extended treatment periods. Given the right

[1] https://bof.fire.ca.gov/projects-and-programs/calvtp-homepage-and-storymap

[2] The CalVTP EIR envisions using a combination of prescribed fire, mechanical treatments, manual treatments, prescribed herbivory, and herbicides to strategically reduce hazardous fuel loading within the State Responsibility Area (SRA).

[3] *Note:* The current mitigations included in the CalVTP EIR are not specific to grazing and create challenges for the practical implementation of grazing projects on the ground.

conditions—including production goals, infrastructure, labor availability, and timing—cattle, like small ruminants, can be highly effective in prescribed grazing applications.

Sheep, goats, and cattle can each be used independently or in combination, depending on project size, vegetation type, and management goals. Each species is capable of accomplishing work on its own, and in some cases, a mix of species may be beneficial. Livestock grazing can be an effective tool for establishing and maintaining fuel breaks in grass and shrub fuel types while also reducing ladder and fine fuels across the landscape. Effective grazing requires careful consideration of animal species, stocking rates, and timing to achieve desired outcomes.

Determining the goals and objectives of the user is critical in evaluating the potential use of prescribed herbivory, also frequently referred to as "prescribed grazing," "targeted grazing" or "service grazing." In general, CAL FIRE-initiated projects will include hazardous fuel reduction as the primary goal of the project. Resource protection and habitat enhancements, such as noxious weed treatment, may be secondary goals of projects. This paper provides guidance on the following:

- Benefits and limitations of using livestock
- Factors to consider in a site evaluation
- General animal characteristics
- Best management practices
- Contracting considerations
- California Environmental Quality Act (CEQA) considerations
- Resources for more information

BENEFITS

Prescribed herbivory can offer a variety of benefits in comparison to other proposed vegetation treatments. Herbivory is a traditional method of biomass removal. In addition to the management of fine fuel loads to achieve desired conditions for wildfire, prescribed herbivory may also:

- Improve or maintain desired plant species
- Improve or maintain quantity and quality of forage
- Improve or maintain water quality and quantity
- Improve or maintain riparian and watershed function
- Reduce soil erosion
- Improve soil health
- Improve or maintain the quantity, quality, or connectivity of food and/or cover available for wildlife

Consider using prescribed herbivory in the project when the following concerns exist:

- Proximity to structures, compared to risks of using prescribed fire or mechanical treatments
- Steep slopes, compared to prescribed fire, manual, or mechanical treatments
- Soil compaction and surface disturbance, compared to mechanical treatments
- Noxious weed control, compared to manual or mechanical treatments
- Air quality and liability, compared to the use of prescribed fire
- Noise, compared to mechanical and some manual treatments

LIMITATIONS

There may be environmental, social, or project-specific constraints that make prescribed herbivory an inappropriate treatment to consider, including, but not limited to, the following:

- Timing constraints on treatment implementation, especially in relation to the size and maturity of the vegetation
- Browsers prefer to eat the leaves and shoots, leaving larger woody material (i.e., one inch or larger) behind. Seasonal variations also affect the palatability and nutritional quality of vegetation.
- Goats may eat the bark of some tree species, which can kill the tree by girdling. This can be controlled through appropriate stocking rates, management practices on-site, and limiting on-site duration.
- Herbivory may only remove live one- and ten-hour fuels (less than about one inch). Prescribed grazing may be used in conjunction with other vegetation treatments if larger materials need to be treated or a high quantity of dead fuels is present on-site.

SITE EVALUATION

Several characteristics and parameters of the site must be evaluated prior to designing a grazing/browsing management plan.

Vegetation Characteristics

Prescribed herbivory should be considered when the vegetation to be reduced or modified is grass, forbs, or shrubs. Herbivores may also be appropriate in forested vegetation types when the targeted vegetation is shrubs and brush, such as in fuel break maintenance. Vegetation characteristics to evaluate include:

- **Species Composition:** Understanding the vegetation species on the ground will aid the grazing operator in identifying the appropriate animals for the job. Any noxious or potentially toxic species on-site should be identified. This information may dictate project timing by considering when the vegetation is most palatable or if the noxious weeds can be grazed before seed set to minimize seed production, or avoiding noxious weeds that have already set seed to minimize spread.
- **Height:** Goats can browse only as high as they can get their mouths when standing on their hind legs, or about 7 feet. Any vegetation higher than this is unlikely to be adequately grazed to meet fuel reduction goals.
- **Diameter:** Goats can browse shrub and tree stems up to approximately 1 inch in diameter. Material of greater diameter will likely be left on-site, denuded of any smaller stems, branches, and leaves.
- **Density:** The relative density or quantity of the vegetation to be removed or modified will aid in determining the number of animals and the length of time necessary to complete the job.

Environmental Characteristics

Herbivores can impact resources if not carefully managed. Key concerns include water courses, wildlife habitats, cultural sites, and valuable vegetation. Special consideration should also be given to neighbors and residents when planning a project. Sensitive areas must be identified, marked on maps, and protected through clear mitigation measures. These measures should be included in the treatment plan and communicated to the livestock and project manager, ideally through a pre-operational field visit.

Infrastructure

Moving herbivores to the site generally requires trucks and trailers. Once the animals are on-site, water and containment must be addressed.

- **Roads:** Transportation of herbivores generally is by tractor trailer or pick-up truck with livestock trailer typically between 18 to 30 feet, depending on the number of animals. It is important to note if the site has an adequate turnaround and loading/unloading area to facilitate large truck traffic. This does not have to be directly at the project site as animals can be moved moderate distances on foot to the project area. Also note if there are access roads throughout the project area, and if the loading area will be different than the unloading area.

- **Water:** All herbivores require water on-site. Sheep and goats consume up to 2-gallons per animal per day, whereas cattle can require up to 25-gallons a day depending on climatic factors. Water can be from a water supply line to a portable water trough, an on-site stock pond, mobile water tank and trailer, or can be shipped in by a water tender. All available water sources in the general project vicinity should be identified during project development.

- **Containment:** Herbivores will need to be contained to the project boundaries or smaller subunits within the project area to control animal movement. This containment aids in managing the intensity of site impact and duration of grazing in the project area, protects on and off-site sensitive resources, and helps to protect herbivores from predators. Cattle, sheep, and goats require fencing and typically herding dogs are utilized; in addition, sheep and goats will generally utilize guard and herding dogs and an on-site herder. Portable electric fencing is a common tool for grazing operators, but any existing fences or barriers to animal movement should be identified.

Scale

The size of the project and the amount of vegetation to be removed will strongly influence the economics of prescribed herbivory projects. As with mechanical treatments, move-in and set-up costs are somewhat fixed regardless of project size. Herbivores also become more effective once they are familiar with the vegetation and characteristics of the site. Larger projects will likely result in bids that are cheaper per acre or per animal day than smaller projects. However, small projects may still be competitive when combined with other vegetation treatment methods, so the size of the project should not discourage the use of herbivores.

ANIMAL CHARACTERISTICS

Generally, animals can be divided into two categories: **grazers** and **browsers**. Each category may overlap significantly depending on species, stage of life, availability of forage, animal genetics, or previous training or exposure of animals. Cattle and sheep fall into the category of "grazers" and tend to prefer the bulk cellulose of grasses and forbs. Goats fall into the broad category of "browsers" and tend to feed on more readily digestible leaves and shoots of shrubs and trees. These species have a limited ability to shift among these feeding strategies.

Utilizing multiple species together on the same site can be very effective for fuel reduction projects, particularly when the target vegetation is a combination of grass, forbs, and shrubs. Taking advantage of the dietary preferences of each herbivore can result in a more complete fuel reduction project. Grazing animals such as sheep or cattle will consume grass and forbs, while browsing animals such as goats will consume woodier material within their reach (up to 7 feet high).

Fuel reduction will also be dependent on the **stocking rate**, or the number of animals per unit area (density), over the specified length of time. Prescribed herbivory is generally performed at high stocking densities for short periods of time to encourage the animals to compete amongst each other for limited resources. This strategy encourages the animals to uniformly consume all the vegetation present and not preferentially browse and graze on only the most nutritious vegetation available. This strategy also aids in animal health as the livestock attempt to balance the amount of nutritious and less-nutritious vegetation in their diet over short time periods. It is not uncommon to see stocking rates equivalent to 450–900 sheep or goats per acre in a 24-hour period.

Consumption per day of both grazers and browsers can be calculated by the following general rules:

- **Goats** will eat approximately 3% of their body weight per day of the dry matter weight of the forage being consumed.
- **Sheep, horses, and cattle** will eat approximately 2% of their body weight in dry matter per day.

A 100-pound goat would consume approximately 12 pounds of green brush per day. If the project objective is to reduce one ton (2,000 pounds) of brush per day from a specified area, it would take approximately 170 100-pound goats to accomplish that objective. By calculating the amount of biomass to be removed, the proper number of animals and length of the grazing and/or foraging period can be calculated. This guidance will help during the contracting phase of project development. There is not a typical mob size for multi-species systems; however, one herder can handle up to 1,500 head of goats and sheep and one semi-truck can transport approximately 400–450 goats and sheep, 35 cows, or 70–100 stockers (i.e., calves). The ratio of grazers to browsers can be tailored to the targeted vegetation to be removed.

Forage species being targeted for herbivory may not always provide a nutritionally adequate diet for the animals; therefore, mineral, or protein supplements may be required to maintain animal health and productivity. Toxic plants can be a challenge, particularly with sheep. Goats seem to be frequently resistant to the most serious toxins but may limit their intake of scrub or forbs depending on the time of year or elevation (see Forero et al. 2011). The experienced contract grazer will be able to identify any special constraints on the site and may be able to suggest seasonal project timing that will best meet the project's objectives.

BEST MANAGEMENT PRACTICES

There are important best management practices to integrate into the design of a prescribed herbivory project to minimize or mitigate potential environmental or social impacts.

- Identify and establish appropriate buffer zones around environmentally sensitive areas such as riparian zones, sensitive plants, threatened or endangered animal habitat and archaeological resources.
- To prevent introduction of seeds from undesirable plant species to the site, consideration should be given to where the animals are coming from, and whether viable seeds of undesirable species are present. If this is the case, the herd should be fed a weed-free diet for three days prior to being introduced to the grazing site. Any supplemental feed brought on site should be free of noxious weeds.
- Use the highest appropriate stocking density to achieve uniform utilization of the targeted vegetation.
- Post signs informing the public about the danger of electric fences and unleashed guard dogs when the project area is open to the public. Discuss public interactions with the on-site herder and grazing project manager (see Wolf et al. 2017).
- Conduct appropriate public outreach so that the public will understand the project objectives. The general public will be very interested in what the animals are doing and why. Consider project signage or a one-page pamphlet or brochure available on-site describing the overall project, its objectives, and how herbivory is helping to achieve those objectives.
- Confirm that the grazing operator has well thought-out animal care procedures and protocols in place to ensure the animals are cared for in a responsible, humane fashion (e.g., ample stock watering, safety from predators, and careful animal observation and action for accidents, sickness, or disease).
- Ensure consultation with Certified Range Managers (CRM) when rangeland practices are being applied on forested landscapes or as appropriate.
- Develop a monitoring program that determines the effectiveness of the grazing/browsing program compared to the project goals.

CONTRACTING

The following key points should be addressed in a contract with the grazing operator.

Finding the Right Contract Grazing Operator for the Project

There are a number of contract grazing outfits in California and beyond performing prescribed herbivory projects to meet specific objectives (e.g., fuel reduction, invasive weed control), most often using some combination of goats, sheep, and sometimes cattle. The size and scale of these operators vary from smaller operations using a few dozen head to commercial operations with upwards of 2,000 head performing year-round grazing services. Determining the project's acreage and the targeted vegetation type and quantity will help determine the best contract grazer for the project. Often a Request for Proposal (RFP), Request for Quote (RFQ), or Request for Bid (RFB) defining the project location and scope is announced to the general public and contract grazers are able to provide a bid or quote on the project. Through this process the project manager can determine which operator may be the best fit for the project.

A list of contract grazers can be found online (see Prescribed Grazer Contacts at the end of this document). Note that these are not the sole operators performing these services. Active contract grazers in the area can be found by contacting other organizations in the region that use prescribed grazing as a management tool, such as local Resource Conservation Districts (RCD), Fire Safe Councils (FSC), or local city and county public works departments.

Site Assessment

Before a contract grazer can develop a quote and scope of work for a project, it is common for the project proponent to schedule a tour of the site(s) that are being proposed for grazing. This allows the contract grazer to assess a variety of factors to determine the appropriate number of head, species and ratio of animals needed, water access points, fencing type required, truck and trailer access, and camp trailer sites (when an on-site herder is necessary). Inviting proposed contract grazing operators to become familiar with the site will allow for the most accurate cost quote/bid and approach to achieving the project's goals using prescribed grazing. Consider designating a day during the RFP/RFQ/RFB period for potential grazing operators to tour the project site.

Cost Structures for Grazing Projects

The highest demand months for contract grazers tend to be during the end of the spring growing season through the late summer months and sometimes early fall, depending on annual rainfall, but this varies from region to region. During heightened demand months contract grazers often charge a premium for their services. Conversely, during the off-season months (i.e., fall and winter service) fees may be lower.

Factors Influencing Cost Structure

When requesting a cost structure from a grazing operator for a grazing project, several key factors influence the fee development:

- **Timing** of the project
- **Project Duration**
- **Project Size** (acres)
- **Number of Livestock** required
- **Number of Personnel** involved
- **Access** to and within the project site
- **Water Availability**
- **General Project Complexity**
- **Mobilization & Livestock Transportation Costs**

Prices fluctuate yearly, seasonally, and among different grazing contractors. To determine a competitive rate, it is recommended to request multiple quotes from various grazers.

Cost Structure Options

1. **Rate per Acre**
   This structure is beneficial when the landowner or manager has a precise estimate of the acreage to be grazed. The grazing operator provides a per-acre rate, allowing for budget adjustments by increasing or decreasing the number of acres to be treated. Public RFPs/RFQs/RFBs often request proposals/quotes/bids in this format.

   Example Bid (rates are examples only):

Site	**Acres**	**Rate per Acre**	**Total Cost**
Site 1	14	$995	$13,930
Site 2	6	$1,005	$6,030
Site 3	16	$995	$15,920
Total Project Cost	**36 acres**		**$35,880**

   Additional costs such as transportation may apply.

2. **Total Project Bid**
   In this scenario, the total number of acres is provided, and the grazer develops a comprehensive bid based on internal cost assessments. This method is beneficial for projects with multiple grazing units of varying complexity and accessibility. It is also common for larger-scale projects and public RFPs.

Example Bid (rates are examples only):

- **Total Project Size:** 256 acres (spread across multiple sites)
- **Project Timeline:** June–September 2025
- **Total Project Bid:** $217,600

This approach allows grazing operators to allocate resources efficiently based on site-specific conditions, leading to a more balanced and practical bid.

3. **Rate per Time Period (Day, Week, Month)**
A grazing operator provides a cost estimate based on a set timeframe. This method is useful when precise grazing acreage is unknown, such as projects involving difficult terrain, dense vegetation, or multiple property boundaries. Unlike the per-acre method, project outcomes may vary depending on herd size and vegetation palatability. Private properties often favor this approach, while public RFPs rarely request it.

Example Bid (rates are examples only):

- **Project Description:** HOA property (45 acres, including residential areas)
- **Herd Size:** 600 goats
- **Labor:** 2 onsite personnel
- **Rate:** $1500 per day
- **Duration:** 30–45 days
- **Transportation Fee:** $3000
- **Total Estimated Cost (for 30 days):** $48,000

Additional Considerations:

- **Inflation Adjustments:** Ensure that cost estimates consider inflation trends.
- **Requesting Multiple Bids:** Comparing multiple bids helps assess competitive pricing and contractor reliability.

By understanding these cost structure options, landowners and managers can effectively plan grazing projects and budget accordingly.

The Contract

Public agencies in the state of California have been using contract grazing for more than two decades and detailed contracts have been developed to address the needs and concerns of both the agency and the grazing operator. The contract generally stipulates insurance qualifications, labor details, grazing schedules, and terms of an annual or multiple year contract. Project proponents should inquire with local or regional public agencies known to use contract grazing as a vegetation management tool for sample contracts common in the project area.

A grazing lease or license (see sidebar, "License or Lease?") is an agreement in which the livestock owner pays to graze the property, generally on a per-acre basis or a per-animal-unit or animal-unit month (AUM) basis. **In this instance, landscape and vegetation objectives may be incidental to the lease.** A **grazing lease** structure would be more common with cattle grazing on larger landscapes with a longer grazing period and existing infrastructure such as fencing and water. Livestock operators are often willing to pay for the rights to graze a property if input costs are low, if the grazing season is long enough to offset the cost of shipping in and out, and if it coincides with the seasonality of their production schedule. Leases typically prioritize livestock production goals over vegetation management goals but may still come with the potential benefit of reduced fuel loads.

License or Lease?

A "**lease**" is generally viewed as conveying a right to possession of the property to the exclusion of others. Some leases may reserve certain structures or areas from the description of the property or may allow the Landlord (i.e., generally the property landowner) to enter and inspect under certain circumstances or to use the property in certain ways (e.g., for storage, some limited use or perhaps a right-of-way). A "**license**" or "permit" is generally viewed as conveying a limited right of occupancy consistent with a licensed or permitted "use" such as grazing.

CEQA CONSIDERATIONS

The project manager should investigate whether a prescribed herbivory project falls under an existing program CEQA document, so they can tier the project analysis off of that document. If it does, the program EIR will have a checklist that confirms whether the project is within the scope of that EIR, as well as any potentially significant impacts from the project and corresponding mitigation measures.

If the prescribed herbivory project does not fall under a program EIR checklist in whole or in part, it will require the completion of a separate environmental analysis to comply with CEQA. The analysis may result in the filing of a Notice of Exemption or the completion and filing of a CEQA checklist and associated environmental documents (e.g., Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report).

ADDITIONAL RESOURCES

Prescribed Grazer Contacts

Please note that the RMAC has not verified the contact information provided on these lists nor does the RMAC endorse the contract grazers listed.

- California Wool Growers Association Directory[4]
- California Grazing Exchange (Match.Graze)[5]

Public Agencies Known to Use Prescribed Herbivory

Please note this list is not inclusive of all public agencies that use prescribed herbivory but is included as a guide for the types of local agencies that may have experience using contract grazing services.

California Resource Conservation Districts

East Bay Regional Parks District

Cities of American Canyon, Laguna Beach, Lincoln, Oakland, Petaluma, Rocklin, and San Francisco

San Mateo County Parks and Recreation

Santa Clara County Parks and Recreation

Mid-Peninsula Open Space District

San Mateo and surrounding counties

Ventura County Fire Department

Los Angeles County Fire Department

Prescribed Herbivory Resources and Additional Citations

American Sheep Industry, A. Peischel, and D.D. Henry, Jr. 2006. 2006. Targeted grazing: A natural approach to vegetation management and landscape enhancement – A handbook on grazing as an ecological service. 199 pp. Available online: https://www.sheepusa.org/wp-content/uploads/2022/01/Targeted-Grazing-Book-compressed.pdf. Verified 12 Aug 2025.

American Sheep Industry. 2025. Targeted grazing: Starting and sustaining a grazing services enterprise. 305 p. Available for purchase: https://www.sheepusa.org/product/targeted-grazing-101. Verified 12 Aug 2025.

[4] https://californiawoolgrowers.org/targeted-grazing/directory/
[5] https://matchgraze.com/

California Board of Forestry and Fire Protection – California Range Management Advisory Committee. Website. https://bof.fire.ca.gov/board-committees/range-management-advisory-committee. Verified 12 Aug 2025.

California Wool Growers Association. California Wool Growers targeted grazing handbook. Available by request: https://californiawoolgrowers.org/targeted-grazing/literature/. Verified 12 Aug 2025.

Forero, L, G. Nader, A. Craigmill, J.M. DiTomaso, B. Puschner, and J. Maas. 2011. Livestock-Poisoning Plants of California. UCANR Publication 8398. University of California Cooperative Extension, Berkeley, CA. https://anrcatalog.ucanr.edu/pdf/8398.pdf. Verified 12 Aug 2025.

Ingram, R.S., M.P. Doran, and G. Nader. 2013. Planned Herbivory in the Management of Wildfire Fuels. p. 61-76 (Chapter 5) *In:* Herbivory, Dr. Breno Barros (Ed.). ISBN: 978-953-51- 1052-1. http://dx.doi.org/10.5772/48673. Verified 12 Aug 2025.

Navaez, N. 2007. Prescribed Herbivory to Reduce Fuel Load in California Chaparral. University of California, Davis. PhD Dissertation. https://www.proquest.com/openview/53f9b1073338468890517a353dc78c5e/1?pq-origsite=gscholar&cbl=18750. Verified 12 Aug 2025.

Range Management Advisory Committee. 2024. Jan 30, 2024: Prescribed Grazing Symposium Resources List. An addendum to the symposium "Putting Prescribed/Targeted Grazing to Work on Rangelands and Forests at the Landscape-Level in the Western U.S. and Beyond", presented at the Society for Range Management Annual Conference, Reno, NV. Jan 28–Feb 1. https://calfire.box.com/s/76wjjbewyciegoatsxxzc3r63przfb2e. Verified 12 Aug 2025.

Roche, L.M., and D.K. Macon. 2025. Expanding prescribed grazing for wildfire resilience in California: A brief on opportunities and strategies for strengthening wildfire preparedness and resilience efforts. University of California, Davis. https://rangelands.ucdavis.edu/sites/g/files/dgvnsk13956/files/media/documents/RxGrazing_fire_brief.pdf. Verified 12 Aug 2025.

Society for Range Management. Targeted Grazing Committee. https://rangelands.org/targeted-grazing/. Verified 12 Aug 2025.

Wolf, K.M., R.A. Baldwin, and S. Barry. 2017. Compatibility of livestock grazing and recreational use on coastal California public lands: Importance, interactions, and management solutions. *Rangeland Ecology & Management* 70(2):192–201.

Additional Resources on Grazing Agreements (i.e., Contracts)

RMAC. 2025. State Lands Grazing Packet Guidebook, including Instructions for Use of the Grazing Agreement and Management Action Plan (MAP) Templates. Range Management Advisory Committee, Board of Forestry and Fire Protection, California Natural Resources Agency. Sacramento, CA. Approved March 27, 2025. Available online on the RMAC webpage: https://calfire-umb05.azurewebsites.net/board-committees/range-management-advisory-committee/