

**2024 RANGE MANAGEMENT
ADVISORY COMMITTEE
ANNUAL REPORT
AND WORKPLAN**



**STATE BOARD OF FORESTRY AND FIRE
PROTECTION**

Approved by the Board of Forestry & Fire Protection March 6, 2025

Chair: Dr. Marc Horney

Vice-Chair: Dr. Stephanie Larson

March 6, 2025

The Board's mission is to lead California in developing policies and programs that serve the public interest in environmentally, economically, and socially sustainable management of forest and rangelands, and a fire protection system that protects and serves the people of the state.

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EXECUTIVE SUMMARY

The Range Management Advisory Committee (RMAC) Annual Report and Workplan ('Report') is updated and approved by the Board of Forestry and Fire Protection (Board) annually and is intended to catalogue the yearly accomplishments and status of ongoing RMAC efforts. The Report provides an update of current RMAC membership and staffing, summarizes RMAC activities and progress toward Annual Priorities and Objectives for the previous calendar year, details the Annual Priorities and Objectives for the upcoming calendar year, and highlights constraints and challenges for the committee in completing its Annual Priorities.

I. RMAC PROCESS SUMMARY

The Range Management Advisory Committee (RMAC) is an advisory body to the Board of Forestry & Fire Protection ('Board'), statutorily authorized by [Public Resources Code \(PRC\) § 741](#).¹ A California range policy advisory body has existed in some form in the State since 1945, when the Board requested the appointment of the Range Improvement Advisory Committee (RIAC). The RIAC was established in 1946 to advise the Board on rangeland matters. In 1967 the RIAC was reconstructed and chartered with 11 voting members and nine non-voting technical consultants. The RIAC slipped into a period of dormancy and was reactivated and re-chartered as the RMAC in 1975. Legislation was introduced in 1984 to make the RMAC a statutory advisory body of the Board and the California Natural Resources Agency (CNRA). Additional legislation in 1996 expanded the advisory role to include the California Environmental Protection Agency (CalEPA) and the California Department of Food and Agriculture (CDFA). The Secretaries of the CNRA, CalEPA, and CDFA are required to notify, and encouraged to consult with, the RMAC on rangeland issues.

The RMAC envisions a resilient rangeland landscape in California that provides a diversity of ecosystem services to support the state's ecological and human health. To do so, the RMAC monitors the present status and trends in California's rangeland resources; provides recommendations to the Board and advised agencies addressing them; and works to facilitate strong relationships with local, state, and federal agencies, academic institutions, and other professional organizations to develop data-driven solutions based on the current scientific consensus around environmental, social, and economic management while considering the diverse perspectives of stakeholders in California.

The RMAC reports on its activities in a variety of ways. The RMAC [Strategic Plan \(RMAC 2020\)](#) is a formal document that guides the activities and longer-term (5-year) goals of the RMAC and is revised on a 5-year cycle; the RMAC will revise its Strategic Plan in 2025. The RMAC conducts open meetings a minimum of four times per year (quarterly) to conduct RMAC business, although meetings generally occur 6 to 8 times per year. Meetings are utilized to transparently conduct RMAC business and may include reports on progress toward goals and objectives of the RMAC, final reports on RMAC endeavors or other range-related efforts, and other presentations or discussions on range-related issues and research. The RMAC Chair or Board staff also report on the RMAC's activities via verbal updates at Board meetings throughout the year and will begin providing longer informational presentations on range-related issues under the purview of the Board in the coming 2025 year.

¹ https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC§ionNum=741.

This report provides information on RMAC membership and operations, documents progress towards the Committee's 2024 annual priorities, lays out the Committee's 2025 annual priorities, and details other accomplishments and ongoing RMAC efforts.

II. CURRENT APPOINTED RMAC MEMBERS and STAFF

In 2024, the Committee had one Chair, one Vice-Chair, and 9 additional members, including three members of the public, one member from the California Resource Conservation District, seven members appointed from organizations representing rangeland owners, and one Board-appointed, non-voting, ex-officio member (see **Table 1**).

Table 1. Current RMAC Membership and Support Staff

Name	Seat Type	Affiliation	Term End
Marc Horney, Ph.D., Chair	General Public	California Polytechnic State University, San Luis Obispo	04/2025†
Stephanie Larson, Ph.D., Vice-Chair	Range Organization	University of California Cooperative Extension	01/2026†
Jeremy Walker	Range Organization	Corte Madera Ranch	07/2028
Taylor Hagata <i>currently open seat</i>	Range Organization	California Farm Bureau	06/2024
Bart Cremers	Range Organization	Wildlands	05/2027
Rich Ross	Range Organization	California Cattlemen's Association	01/2028
Cole Bush	Range Organization	California Wool Growers Association	01/2026
Andrée Soares	Range Organization	California Wool Growers Association	01/2025
Paul Starrs, Ph.D.	General Public	Professor Emeritus, University of Nevada, Reno	01/2026
Lance Criley	General Public	United States Forest Service	11/2025
Joel Kramer	California Resource Conservation Districts	San Diego Resource Conservation District	01/2026
Katie Delbar	Board-appointed ex-officio member*	Industry Representative, Board of Forestry & Fire Protection	n/a
Support Staff			
Edith Hannigan	Executive Officer	Board of Forestry & Fire Protection	n/a
Deniele Casarubbia	Staff Services Analyst	Board of Forestry & Fire Protection	n/a
Mazonika Kemp	Office Technician	Board of Forestry & Fire Protection	n/a
Kristina Wolf, Ph.D.	Environmental Scientist	Certified Range Manager 122, Board of Forestry & Fire Protection	n/a

* The Board (Board of Forestry & Fire Protection) member shall have no vote in Committee actions except in the case of a tie.

† The Chair and Vice-Chair are appointed for one-year terms extending the calendar year at the first meeting of the year.

All RMAC seats and positions were filled for the majority of 2024, with one seat remaining open in the latter half of the year. The Chair and Vice-Chair are appointed on an annual basis: Chair Dr. Marc Horney and Vice-Chair Dr. Stephanie Larson were re-appointed to those positions through January 2025. Member Rich Ross was reappointed to a four-year term in January 2024.

Jeremy Walker, manager of Corte Madera Ranch, was appointed to backfill Billie Roney's seat in July 2024. In November, Member Andréa Soares indicated her intention to step down from the RMAC after the first 2025 meeting in January. Open seats and members' ability to remain in their seat for the duration of the year will be assessed at the first meeting of the new year to determine if current members will continue in their seats. If so, reappointment votes will be cast at the first meeting of the new year if a quorum is present; if not, nominations for new members will be accepted and reviewed as submitted.

III. RMAC ACCOMPLISHMENTS

In 2024, the RMAC accomplished the following:

- The RMAC **met six times** in open, virtual/hybrid public webcast meetings to conduct business, and a quorum was reached at all these meetings. The average annual attendance rate was 59% among the voting member body, and attendance rates for individual members ranged from 33%–100%. Meeting activities included approval of meeting minutes; membership updates and appointments; legislative and partner updates; workshop planning; and public education and outreach presentations by rangeland and natural resource representatives, professionals, and practitioners.
- **Re-appointed** Dr. Marc Horney as Chair and Dr. Stephanie Larson as Vice Chair to one-year terms and Member Rich Ross to a four-year term; and appointed Jeremy Walker to a four-year term.
- The **State Lands Grazing License and Land Management (SLGLLM) subcommittee** was dissolved in 2023 after completing the first set of draft documents to support the development of grazing agreements, and their planning and implementation. In 2024, a subset of original SLGLLM members—Dr. Larry Ford, Member Cremers, Member Criley, and Jeanette Griffin of CDFW—began planning for finalization of deliverables in early 2025, which will include:
 - **Grazing Agreement** outline/template, with anticipated support and approval from the Department of General Services in early 2025;
 - **Management Action Plan** outline and template to assist in creating a grazing management plan as a stand-alone document or as an attachment to a Grazing Agreement; and,
 - **Guidebook** to accompany the above templates and to assist users in the development, planning, and implementation of Grazing Agreements and Management Action Plans, with a focus on state-managed lands. Applications to other land types will be addressed.
- The State budget was reduced in 2024 with travel strongly discouraged or prohibited unless mandated by statute. As such, the RMAC reduced its **Annual Educational Workshop Series** (see **Table 3, Goal 3**) in 2024: Dr. Larson spearheaded efforts to develop and implement one field tour in October 2024 to highlight **conservation grazing and the impacts of livestock grazing on native flora and fauna**. The RMAC partnered allied range organizations to leverage resources and attract speakers and attendees. Speakers, partners, and sponsors of workshops and field days spanned a wide range of private industry, governmental agencies, and non-governmental agencies (**Figure 1**).



Figure 2. Partners, Sponsors, and Speaker Affiliations for RMAC 2024 Annual Educational Series Workshop

The 2024 RMAC Annual Educational Series field tour was attended by approximately 21 participants representing Resource Conservation Districts, the U.S. Forest Fish and Wildlife Service, the Natural Resources Conservation Service, the State Senate, secondary educational institutions, and various conservancies and land management organizations at regional, state, and federal levels. This was reduced from an estimated 900 reached in 2023 with 9 workshops, when the budget was not frozen. To continue to provide much-needed livestock and vegetation management guidance, the RMAC ramped up efforts to develop resources to assist land managers in the application of prescribed grazing and other related efforts.

- [Senate Bill \(SB\) 675: Prescribed grazing: local assistance grant program: Wildfire and Forest Resilience Task Force \(2023-2024\)](#)² was signed into law by Governor Newsom on September 27, 2024. SB 675 was introduced by Senator Monique Limón in February 2023 and sponsored by the California Climate and Agriculture Network (CalCAN). SB 675 was related to [Assembly Bill \(AB\) 297: Wildfires: local assistance grant program: prescribed grazing: advance payments](#)³ in that three elements of SB 675 were copied into that bill (i.e., AB 297) and signed into law in September 2023. AB 297 does the following:
 - **Defines prescribed grazing in statute:** *“Prescribed grazing means the lawful application of grazing by a specific kind of livestock at a determined season, duration, and intensity to accomplish defined vegetation or conservation goals, including reducing the risk of wildfire by reducing fuel loads, controlling undesirable or invasive plants, and promoting biodiversity and habitat for special status species. Prescribed grazing may involve any or multiple kinds of livestock.”*
 - **Makes prescribed grazing training an eligible "outreach/education" activity in the Wildfire Prevention Grants Program:** *“Public education outreach regarding making homes and communities more wildfire resilient, including training on defensible space and prescribed grazing.”*

² https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB675

³ https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB297

- **Removes a sunset on advance payments for equipment and supplies in the Wildfire Prevention Grants Program.**

SB 675 further bolsters efforts to support prescribed grazing in the State by doing the following:

- **Clarifies eligibility of projects including fencing or watering improvements:** *“(A) Projects involving the application of prescribed grazing, which may include the installation of fencing or watering improvements... (B) Watering improvements described in subparagraph (A) shall not include the creation of a well or replacement of well infrastructure.”*
- **Requires RMAC to develop guidance for local or regional prescribed grazing plans, in consultation with relevant agencies and experts, by July 1, 2025:** *“On or before July 1, 2025, the Range Management Advisory Committee, established pursuant to Section 741, in consultation with the Department of Fish and Wildlife, fire ecologists with expertise in the full range of California’s vegetation communities, and the University of California Cooperative Extension Livestock and Natural Resources Advisors and Specialists, shall develop guidance for local or regional prescribed grazing plans.*
- **Requires State Wildfire & Forest Resilience Task Force (‘Task Force’) to develop strategic action plan to expand the use of prescribed grazing, in consultation with RMAC, by June 30, 2025:** *“On or before June 30, 2025, the task force, in consultation with the Range Management Advisory Committee of the State Board of Forestry and Fire Protection, established pursuant to Section 741, shall develop a strategic action plan to expand the use of prescribed grazing to support the state’s efforts to increase the pace and scale of wildfire and forest resilience activities and strengthen the protection of communities and reduce their fire risk.”*

Board staff worked to develop a **Budget Change Proposal (BCP)** within ten calendar days of the signing of SB 675 into law to create one full-time Senior Environmental Scientist (Supervisory) position to support the implementation of SB 675 and the expanding role of the RMAC. At this time, the Board allocates only 15% of one Senior Environmental Scientist (Specialist) position to administrative support of the RMAC’s duties and functions. If the BCP is approved, the Board hopes to fill that position no later than September 30, 2025.

The first deliverable deadline related to SB 675 (i.e., Task Force Strategic Action Plan prescribed grazing recommendations) approaches on June 30, 2025. To support the increased administrative needs of the RMAC, the Board developed a contract to hire at least one student intern. The Board hopes to fill this position in early 2025. Moreover, Members Cremers, Delbar, and Bush were invited to join the recently developed Prescribed Grazing Working Group, a team created to support development of prescribed grazing recommendations for consideration for incorporation into the Task Force’s 2025 Strategic Action Plan. This team includes range managers and experts from across California who will liaise with the Task Force and the RMAC to develop the prescribed grazing guidance for this first deliverable. It is anticipated that development of local and regional prescribed grazing plans will occur concurrently, but be finalized later than, the initial recommendations for the Task Force’s Strategic Action Plan deliverable.

- To support the directive of [PRC § 741](#) to advise the Board on rangeland resource matters, the RMAC provided a [presentation on prescribed grazing](#)⁴ at the **Board’s November 2024 meeting** ([Larson and Bush 2024](#)). Dr. Larson—U.C. Cooperative Extension Livestock and Range Management Advisor and vice-chair of the RMAC—and Member Bush—owner-operator of Shepherdess Land and Livestock and director of Grazing School of the West—described the efforts the RMAC has engaged in over the previous years to support the expansion of prescribed grazing for vegetation management, especially as it relates to wildfire resilience and the implementation of SB 675.
- The RMAC led a panel on **prescribed grazing in forests and rangelands** on January 30, 2024 at the 2024 Annual Society for Range Management meeting in Sparks, NV. The symposium, entitled **“Putting Prescribed/Targeted Grazing to Work on Rangelands and Forests at the Landscape-Level in the Western U.S. and Beyond,”** consisted of individual presentations and a panel Q&A session with all speakers. Speakers hailed from academia, state government, and private industry spanning California, Idaho, Minnesota, and Saskatchewan, Canada:
 - **Kelly Anderson**, Minnesota Department of Agriculture; Bianca Artadi-Soares, owner-operator of Star Creek Land Stewards and Talbot Sheep Company
 - **Cole Bush**, owner-operator of Shepherdess Land & Livestock, Director of the Grazing School of the West
 - **Matt Gabica**, owner-operator of We Rent Goats
 - **Dr. Marc Horney**, Certified Rangeland Manager (CRM) and Associate Professor at California Polytechnic State University, San Luis Obispo
 - **Dr. Stephanie Larson**, Director of the University of California Cooperative Extension for Sonoma County
 - **Lee Sexton**, owner-operator of Sexton Grazing & Consulting
 - **Dr. Kristina Wolf**, CRM and Senior Environmental Scientist for the Board (presented virtually due to State travel restrictions)

Speaker travel funding was leveraged from partner organizations. Speaker presentations slides were posted on the [RMAC webpage](#) under the Workshops header, along with a [Supplementary Resources List](#)⁵ that was developed to include links to relevant literature and websites and provides access to a [public Box drive](#)⁶ with hosted files to ensure long-term access to shared documents.

- The process of revising the **2024 Annual Priorities, Goals, and Objectives** began in late 2023. In compliance with [PRC § 741](#), the RMAC formally solicited agency priorities in October 2022 from the Board, CNRA, CalEPA, and CDFA for review and integration into the priorities and goals of the RMAC. Board staff provided written notice to the Secretaries and Deputy Secretaries of each of the advised agencies, along with additional contacts at each agency, to solicit input on the 2024 RMAC’s Annual Priorities. The Annual Priorities, Goals, and Objectives were finalized at the RMAC’s March 2024 meeting and approved by the Board in April 2024, when it approved the RMAC’s [2023 Annual Report and Workplan](#) (RMAC 2024).

⁴ https://bof.fire.ca.gov/media/eeebeunh/full-16-rmacs-role-in-wildfire-resilience_boff-fall-2024-mtg-presentation.pdf

⁵ <https://bof.fire.ca.gov/media/5m0h1xz2/prescribed-grazing-resource-list-final.pdf>

⁶ <https://calfire.box.com/s/vb9fxjvki4t3iroubssdesy9cifxtqci>

To develop the **2025 Annual Priorities** Board staff solicited input from advised agency executive and administrative teams on the development of the RMAC's 2025 Annual Priorities. Advised agencies were requested to respond by January 13, 2025, for incorporation in the RMAC's Annual Report & Workplan, so that this report could be finalized and approved at the first meeting of the year. The RMAC also solicited stakeholder and member input during multiple public meetings in 2024 to inform the 2025 Annual Priorities. Synergistic priorities from advised agencies and stakeholders were considered during the revision of the Annual Priorities, Goals, and Objectives (i.e., action items). It is expected that the final 2025 Annual Priorities, Goals, and Objectives—which are embedded in this 2024 Annual Report and Workplan—will be finalized and approved at the first RMAC meeting of 2025, if the 2024 Annual Report and Workplan is approved at that time.

- Appointed members and support staff to teams working under advised agencies and other organizations with synergistic goals:
 - As a member of the **CWGA's Targeted Grazing Committee**, Member Bush spearheads an action team to liaise with that committee to develop work products focused on prescribed grazing for fuels reduction. In early 2023 the action team completed an information sheet on Prescribed Herbivory to be shared with CAL FIRE, and potentially addended to the 2021 [CAL FIRE Fuels Reduction Guidance](#)⁷ ([CAL FIRE 2021](#)) or incorporated into future versions of this guidance. Ultimately CAL FIRE decided not to incorporate this guidance, and in 2024 reached out to the RMAC for information to include in a section on prescribed grazing in a future version of the Fuels Reduction Guidance document. The RMAC pursued independent publication of the CWGA/RMAC-created infographic on its website, and the final product will be disseminated widely via various rangeland listservs.

This action team is also finalizing a comprehensive update of the [2015 Prescribed Herbivory White Paper](#) ([RMAC 2015](#)). The RMAC will develop a stand-alone Technical Guide on Prescribed Herbivory in California and expects to have drafts ready for review mid-2025. Members Paul Starrs, Dr. Stephanie Larson, and Joel Kramer will contribute to these efforts.

- Board staff continues to attend regular meetings of the **Natural Working Lands (NWL) Science Team** under the CNRA and works with and provides input to the team for integration of range-related resource issues into climate-smart strategies. Members of this team work to inform and review modeling and analyses for natural and working lands strategies, advise state agencies on implementation strategies and standardized accounting, and provide recommendations on addressing barriers to efficient implementation of climate action in natural and working lands. Board staff also attend the related **NWL Executive Advisory Committee** (EAC)—a committee developed to support the implementation of [AB 1757 \(2021–2022, Rivas and Garcia\): California Global Warming Solutions Act of 2006: climate goal: natural and working lands](#).⁸ Board staff provided input into the NWL EAC recommendations for range-related nature-based climate solutions that reduce or mitigate greenhouse gas emissions to support state goals to achieve carbon neutrality and foster climate adaptation in 2024.

⁷ https://bof.fire.ca.gov/media/hw3lmvd2/7-cal-fire-fuels-reduction-guide-final-2021_ada.pdf

⁸ https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=202120220AB1757&showamends=false

- Board staff produced a draft for the rangelands chapter of the **2024 Assessment** for the [Forest and Resource Assessment Program](#),⁹ which evaluates the amount and extent of California's forests and rangelands, analyzes their conditions, and identifies alternative management and policy guidelines. Members of the RMAC will also be asked to review the chapter draft prior to finalization, likely in early 2025.
- A variety of speakers provided **presentations to the RMAC** audience at public meetings to disseminate information on and discuss potential needs and solutions for rangeland issues in California. Speakers and topics included:
 - **Frank L. Frievalt**, Director of the WUI Fire Institute at California Polytechnic State University, San Luis Obispo, presented on the creation of the [WUI Fire Institute](#)¹⁰ and its mission to support ongoing WUI mitigation across the State.
 - **Dr. Larry Ford**, consultant and owner-operator of [Rangeland Conservation Science](#),¹¹ provided two presentations on the progress made toward development of the SLGLLM deliverables (i.e., the Grazing Agreement, Management Action Plan, and Guidebook).
 - **Anthony Stornetta**, Deputy Fire Chief of Emergency Operations for the Santa Barbara County Fire Department, updated the RMAC on the [2020 CA-State Certified Prescribed Fire Burn Boss Program](#).¹²
 - **Brian Shobe**, Director of at the California Agriculture and Climate Network (CalCAN), discussed potential timelines and identified [critical action items in meeting the mandates of SB 675](#).¹³ Mr. Shobe also provided an update on behalf of Dan Macon of the [Prescribed Grazing Working Group](#) of the Task Force.¹⁴

IV. ANNUAL PRIORITIES, GOALS, and OBJECTIVES

Annual priorities are generally reviewed in the fall, further developed in early winter, and voted on at the first RMAC meeting of each year to guide the activities of the committee. The 2023 priorities were released in the [2022 Annual Report and Workplan \(RMAC 2023\)](#); the 2024 priorities were embedded in the [2023 Annual Report and Workplan \(RMAC 2024\)](#); and the 2025 priorities are embedded in this 2024 Annual Report and Workplan. Each Annual Report and Workplan provides a status of the progress made on the Annual Priorities, Goals, and Objectives that were established for that calendar year, and provides an aspirational list of the Annual Priorities, Goals, and Objectives for the upcoming year. The vision and mission of RMAC are supported by the Overarching priorities outlined in the RMAC [Strategic Plan \(RMAC 2020\)](#) and in targeted, shorter-term Goals and Objectives.

The RMAC's vision and mission guide its Overarching Priorities (**Table 2**), and the Annual Priorities, Goals, and Objectives are developed annually to fulfill these. The RMAC's Overarching Priorities are longer-term priorities of the RMAC that require actions on multiple fronts, often over multiple years, to accomplish. The

⁹ <https://www.fire.ca.gov/what-we-do/fire-resource-assessment-program>

¹⁰ <https://bof.fire.ca.gov/media/zz2bnaxw/8-f-frievalt-wui-fire-institute-cal-poly-slo.pdf>

¹¹ <https://rangelandconservation.com/home>

¹² <https://bof.fire.ca.gov/media/dc4oonf/6-rmac-burn-boss-update-a-stornetta.pdf>

¹³ <https://bof.fire.ca.gov/media/3k4ictly/7-sb-675-background-implementation-timeline-process.pdf>

¹⁴ <https://bof.fire.ca.gov/media/hq3n0s04/7-nov-18-2020-rx-herbivory-working-group-update.pdf>

[Strategic Plan \(RMAC 2020\)](#) outlines four main Overarching Priorities; the priority associated with the CDFA Noxious Weeds Program was not included in the [2022 Annual Report and Workplan \(RMAC 2023\)](#) as the future of that program was uncertain at the time. The RMAC has re-incorporated that priority as the Noxious Weeds Program was recently revived and will follow any changes in the program activity to determine how it should be further addressed in future years' goals and objectives.

Table 2. Range Management Advisory Committee Overarching Priorities

Priority I. Advise Board and state agencies	Consider matters related to California's rangeland and forested rangeland resources that are under consideration by the Secretaries, the Board, or Federal agencies (as appropriate given the Board's role in representing State interests in Federal timberlands), offer advice and consultation, and recommend appropriate policy measures or administrative actions.
Priority II. Education & Workforce Development	Share information and educational opportunities to Certified Range Managers and government agency rangeland and forestry staff to grow professional knowledge in the field of rangeland resource management.
Priority III. CDFA Weeds Programs	Consult on the development and implementation of the Noxious Weeds Program through the California Department of Food and Agriculture (see FAC § 7271 and 7273).
Priority IV. Monitor & address range issues	Monitor for issues in rangeland science and management and convene groups of relevant professionals to address these issues.

The annual goals and objectives of the RMAC are established, as appropriate, on an annual basis to address more time-sensitive, current issues and needs in range resource management in California, and fall under the RMAC Priorities, above. Goals are developed annually and tiered off the Overarching Priorities of the RMAC, while Objectives are more specific action items associated with a Goal. Progress made in 2024 toward the Priorities, Goals, and Objectives is detailed in **Table 3**. The revised Goals for 2025 precede the table of 2025 Priorities, Goals, and Objectives (**Table 4**), which includes information on leads, partners, status, and estimated completion dates.

The 2024 Goals were developed to fulfill identified goals related to the over-arching priorities of the RMAC, the need and connections to mandates are highlighted in the following:

2024 RMAC Goals and Purpose

GOAL 1: Promote appropriate grazing for fuels management and multiple ecosystem services.

Purpose: To make prescribed grazing a practical option for state land management agencies where it is appropriate and suitable for accomplishing ecological, environmental, and cultural objectives and can be managed to produce results consistent with requirements of environmental regulatory agencies.

GOAL 2: Support workforce development for CRMs, and increase collaboration and joint educational opportunities for RPFs and CRMs

Purpose: There are 77 registered CRMs left in the State, with approximately 25% working as rangeland managers. RMAC needs to promote using that expertise where appropriate or required, including within

CAL FIRE for developing burn plans and conducting prescribed burns. There is a need to integrate and coordinate Registered Professional Foresters (RPFs) with Certified Rangeland Managers (CRMs) for the purpose of developing effective fuels management treatments from their different but complementary professional backgrounds, for example, via combined training programs with both RPFs and CRMs to develop burn plans.

GOAL 3: Develop educational opportunities and outreach for prescribed herbivory, fuel reduction methods integrating prescribed herbivory, and rangeland resource management in general.

Purpose: Establish appropriate guidance for grazing following wildfire on California rangelands. Ensure that livestock policies required by state lands managers are consistent with the best available science identified by UCCE/UC ANR and in state efforts to mitigate the effects of climate change in the Natural and Working Lands Climate Smart Strategy. Grazing is also a fuel reduction method in the State's Wildfire Resilience Action Plan, but few professionals in the state have the necessary experience to develop feasible grazing plans for this purpose. State-wide training and demonstrations in methods of reducing fine fuels using grazing is necessary to implement this practice at scale. Educational efforts should include recommendations for evaluating and mitigating site-specific rangeland resource management and grazing treatment impacts on wildlife habitats, water quality, and fuel bed characteristics, and could include trainings on developing carbon farm plans for grazing lands to increase soil health and forage production while assisting the state with meeting its climate goals on natural and working lands.

GOAL 4: Increase collaborations with advised and related agencies, Native American tribes, and other administrative bodies, solicit and prioritize current California rangeland management research priorities, and monitor and develop or promote planning to address rangeland concerns.

Purpose: Broaden RMAC's connections and interactions with organizations involved in large-scale management of rangelands in California that have not historically or recently been part of its formal stakeholders. Circulate and elevate practical needs for rangeland management research from land managers and agency staff to research organizations in California with the technical skill and capacity to properly investigate them. Monitor regulatory initiatives on surface water pollution, ground water management, soil health, and soil carbon sequestration. Remain in position to provide constructive feedback to agencies on the scientific merit and practicality of regulatory efforts meant to protect water quality and sustain its availability and affordability.

Table 3 (Panel 1 of 4). Progress Toward 2024 Annual Goals and Objectives to meet RMAC Priorities.

Goals, Objectives, Leads & Partners, and Estimated Completion Dates						
Objective Relationship to RMAC Priorities						
OBJECTIVE	Lead RMAC Member(s) & Partners	Objective Attained?	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 1. Promote appropriate grazing for fuels management and multiple ecosystem services.						
1a. Develop standard template(s)/form(s) with accompanying guidance document for constructing grazing agreements and grazing management plans for use by state agencies.	<ul style="list-style-type: none"> • Bart Cremers, Rich Ross • SLGLLM • DGS, CDFW 	<p>Partial</p> <p>Templates developed, public comments accepted; goal to address public comments and present at January 2025 RMAC meeting.</p>	X			X
1b. Establish appropriate guidance for grazing on California rangelands, with an emphasis on state-managed lands.	<ul style="list-style-type: none"> • Lance Criley, Cole Bush, Dr. Stephanie Larson • CWGA TGC 	<p>Ongoing</p> <p>2015 Prescribed Herbivory White Paper Update ongoing; drafts developed and public comment accepted; CWGA TGC to consider comments, and finalize draft for presentation to the RMAC in early 2025.</p> <p>Technical Guidance to be developed in 2025. Prescribed Herbivory Infographic to be finalized and published.</p>	X			X

Table 3. Continued next page.

Table 3 (Panel 2 of 4). Progress Toward 2024 Annual Goals and Objectives to meet RMAC Priorities, *continued from previous page.*

Goals, Objectives, Leads & Partners, and Estimated Completion Dates			Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Objective Attained?	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 2. Support workforce development for CRMs, and increase collaboration and joint educational opportunities for RPFs and CRMs.						
2a. Establish an RMAC subcommittee to develop relationships with the CLFA and the CRM Panel to establish joint CRM-RPF annual fuels management training.	<ul style="list-style-type: none"> • Dr. Marc Horney, Bart Cremers • <i>Matthew Shapero, David Lile</i> 	Partial Action team established in November 2024 to develop and implement a training workshop.	X	X		
2b. Coordinate CRM and RPF requirements and exam contents where appropriate.	<ul style="list-style-type: none"> • Lance Criley, Cole Bush, Dr. Stephanie Larson • <i>CWGA TG Committee</i> 	Ongoing Continued conversations with key partners to explore potential revisions.	X			X
2c. Promote existing efforts to develop a statewide training program for potential CRMs.	<ul style="list-style-type: none"> • Dr. Marc Horney • <i>Dr. Susan Marshall</i> • <i>Cal-Pac SRM CRM Panel</i> 	Ongoing Continued conversations with key partners to explore opportunities.		X		
2d. Invite experts to discuss state requirements for planning and conducting prescribed burns as a CAL FIRE employee or private “burn boss” at a public RMAC meeting.	<ul style="list-style-type: none"> • <i>Anthony Stornetta</i> 	Completed 11/2024 Mr. Stornetta provided a presentation at the November RMAC meeting on the CARx Program.		X		
2e. Meet with CRM Panel and Cal-Pac SRM leadership to discuss other methods of promoting CRM utilization and/or further development of the program.	<ul style="list-style-type: none"> • Dr. Marc Horney • <i>Dr. Susan Marshall</i> • <i>Cal-Pac SRM CRM Panel</i> 	Ongoing Continued conversations with key partners to explore opportunities.		X		

Table 3. *Continued next page.*

Table 3 (Panel 3 of 4). Progress Toward 2024 Annual Goals and Objectives to meet RMAC Priorities, *continued from previous page.*

Goals, Objectives, Leads & Partners, and Estimated Completion Dates			Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Objective Attained?	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 3. Develop educational opportunities and outreach for prescribed herbivory, fuel reduction methods integrating prescribed herbivory, and rangeland resource management in general.						
3a. Coordinate with state agencies and major landowners to facilitate an inventory of existing land management plans and a system for periodic reporting of range management activities.	<ul style="list-style-type: none"> • Dr. Stephanie Larson, Dr. Marc Horney • <i>Various state agencies</i> 	<p>Ongoing</p> <p>Board provided list of current resources to Chair and Vice Chair; RMAC members to provide additional data to further develop inventory in 2025.</p>	X			X
3b. Conduct and promote a collaborative annual educational workshop series on livestock impacts on native plant and animal species.	<ul style="list-style-type: none"> • Dr. Stephanie Larson, Bart Cremers 	<p>Completed 10/2024</p> <p>Field workshop conducted 10/2024.</p>	X	X		X
3c. Develop or approve informational publications and technical guidance for public/agency use.	<ul style="list-style-type: none"> • Cole Bush, Bart Cremers, Jeremy Walker • <i>CWGA TGC</i> 	<p>Ongoing</p> <p>Prescribed Herbivory White Paper Update draft presentation in early 2025. Technical Guide to be developed in 2025. Prescribed Herbivory Infographic to be finalized and published.</p>	X	X		X

Table 3. *Continued next page.*

Table 3 (Panel 4 of 4). Progress Toward 2024 Annual Goals and Objectives to meet RMAC Priorities, *continued from previous page.*

Goals, Objectives, Leads & Partners, and Estimated Completion Dates			Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Objective Attained?	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 4. Increase collaborations with advised and related agencies, Native American tribes, and other administrative bodies, and solicit and prioritize current synergistic California rangeland resource priorities.						
4a. Regularly solicit requests for investigations of rangeland management topics and extend invitations for periodic public reports on activities and issues.	<ul style="list-style-type: none"> • RMAC members • <i>Advised agencies (CDFA, CalEPA, CNRA, Board)</i> 	Completed Experts invited to RMAC members to present on topics of stakeholder interest and/or rangeland resource issue concern.	X			X
4b. Where appropriate, initiate proof-of-concept projects or small-scale collaborative investigations utilizing CDFA mandates under the FAC § 7271 and 7273	<ul style="list-style-type: none"> • Joel Kramer • <i>CDFA, RCDs</i> 	Ongoing RMAC Members exploring opportunities for demonstration projects.	X	X		X

Key: CalEPA = CA Environmental Protection Agency; Board = Board of Forestry & Fire Protection; CAL FIRE = Department of Forestry & Fire Protection; Cal-Pac SRM = CA Pacific Section of the Society for Range Management; CDFW = CA Department of Fish & Wildlife; CLFA = CA Licensed Foresters Association; CNRA = CA Natural Resources Agency; CDFA = CA Department of Food & Agriculture; CRM = Certified Rangeland Manager; CWGA TGC = CA Wool Growers Association - Targeted Grazing Committee; DGS = CA Department of General Services; FAC = Food and Agriculture Code; RCD = Resource Conservation District; RPF = Registered Professional Forester; RMAC = Rangeland Management Advisory Committee; RPF = Registered Professional Forester; SLGLLM = State Lands Grazing License & Land Management, a subcommittee of the RMAC.

In 2025, the RMAC's overarching priorities (**Priorities I through IV**, see **Table 2**) remained the same, but Goals 1 and 3 were combined due to the inherent relationship between the development and dissemination of guidance around livestock grazing and rangeland resource management. As such, the Objectives were also shuffled and revised to reflect this restructuring (see **Table 4**), along with considerations around changes in the RMAC's priorities, member ability to meet objectives, and the foreseeable severe limitation in staffing (15% of one full-time Senior Environmental Scientist), resources (none), and budget (limited travel funding).

2025 RMAC Goals and Purpose

GOAL 1: Develop and promote appropriate rangeland resource management guidance to support fuels management and other ecosystem services.

Purpose: Prescribed grazing is a valuable tool for vegetation management but can be complex and difficult to manage for multiple outcomes and successful outcomes may require high levels of expertise. There is a need to further support prescribed grazing as a practical option for state land management agencies, where appropriate and suitable for accomplishing ecological, environmental, and cultural objectives—especially where complementary to State goals and targets—and can be managed to produce results consistent with requirements of environmental regulatory agencies. To address this, the RMAC may develop and/or promote appropriate guidance for grazing before and following wildfire on California rangelands. The combined expertise of the RMAC members and stakeholders is a valuable resource that the RMAC can leverage to support the dissemination of practicable, data-driven information to assist land managers in the proper application best management practices. The RMAC will also monitor livestock policies required by state lands managers for consistency with the best available science identified by UCCE/UC ANR and other state efforts to mitigate the effects of climate change (e.g., [California's Natural and Working Lands Climate Smart Strategy](#)¹⁵). Grazing is a fuel reduction method in the [State's Wildfire and Forest Resilience Action Plan](#),¹⁶ but few professionals in the state have the necessary experience to develop feasible grazing plans for this purpose. This Goal dovetails with new mandates in SB 675 related to prescribed grazing guidance at the local, regional, and state levels. These efforts will also provide guidance and resources to support improved range management practices at a broader scale across the livestock industry, will support the provisioning of ecosystem services, and support resilient communities. These efforts will also support California's Nature-Based Solutions Climate Targets, which include ambitious, science-driven targets for activities related to rangeland management. For example, the targets call for 33.5 million acres of forests, shrublands and chaparral, and grasslands managed to reduce wildfire risk, including prescribed herbivory, by 2045. Additionally, the targets call for 1 million acres of grasslands restoration by 2045, which includes prescribed grazing in line with California's Climate Smart Lands Strategy.

GOAL 2: Support outreach, education, and workforce development to build rangeland management expertise in the State.

Purpose: There are 77 registered CRMs left in the State, with approximately 25% working as rangeland managers. RMAC needs to promote leveraging that expertise where appropriate or required, including within CAL FIRE for developing burn plans and conducting prescribed burning in rangelands, mixed range-forest systems, and shrublands. There is a need to integrate and coordinate Registered Professional Foresters (RPFs) with Certified Rangeland Managers (CRMs) for the purpose of developing effective fuels

¹⁵ <https://resources.ca.gov/initiatives/expanding-nature-based-solutions>

¹⁶ <https://wildfiretaskforce.org/wp-content/uploads/2022/04/californiawildfireandforestresilienceactionplan.pdf>

management treatments from their different but complementary professional backgrounds, for example, via combined training programs with both RPFs and CRMs to develop burn plans integrated with other fuel treatment activities, including prescribed grazing. Moreover, state-wide training and demonstrations in methods of reducing fine fuels using grazing is necessary to implement this practice at scale. Educational efforts should include recommendations for evaluating and mitigating site-specific rangeland resource management and grazing treatment impacts on wildlife habitats, water quality, and fuel bed characteristics, and could include trainings on developing carbon farm plans for grazing lands to increase soil health and forage production while assisting the state with meeting its climate goals on natural and working lands.

GOAL 3: Collaborate with advised and related agencies, Native American tribes, and other administrative bodies to prioritize rangeland management research priorities and utilize networks to monitor and promote planning to address concerns.

Purpose: Rangelands support a diverse suite of ecosystem services and serve a diverse citizenry. To encourage a diverse set of voices are included in consideration of rangeland management in California, the RMAC will broaden connections and interactions with organizations involved in large-scale management of rangelands in California that have not historically or recently been part of its formal stakeholders. Circulate and elevate practical needs for rangeland management research from land managers and agency staff to research organizations in California with the technical skill and capacity to properly investigate them. Monitor regulatory initiatives on surface water pollution, ground water management, soil health, and soil carbon sequestration. Remain in position to provide constructive feedback to agencies on the scientific merit and practicality of regulatory efforts meant to protect water quality and sustain its availability and affordability.

Table 4 (Panel 1 of 5). 2025 Annual Goals and Objectives to meet RMAC Priorities.

Goals, Objectives, Le ads & Partners, and Estimated Completion Dates				Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Status	Estimated Completion	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 1. Develop and promote appropriate rangeland resource management guidance to support fuels management and other ecosystem services.							
1a. Finalize and disseminate DGS-approved standard template(s)/form(s) with accompanying guidance document for constructing grazing agreements and grazing management plans for use by state agencies.	<ul style="list-style-type: none"> • Bart Cremers, Lance Criley, Cole Bush, Rich Ross • SLGLLM • <i>Dr. Larry Ford, Jeanette Griffin</i> • DGS 	<ul style="list-style-type: none"> • Public comments incorporated on drafts • Address comments and finalize drafts • Presentation to the RMAC and the Board early 2025 	06/2025	X			X
1b. Establish appropriate guidance for grazing on California rangelands, with an emphasis on state-managed lands, via informational publications, publications, and technical guidance for public and agency use.	<ul style="list-style-type: none"> • Cole Bush, Dr. Paul Starrs, Dr. Stephanie Larson, Bart Cremers • <i>CWGA TG, Task Force, Prescribed Herbivory Working Group, CAL FIRE</i> 	<ul style="list-style-type: none"> • 2015 Prescribed Herbivory white paper update in progress <ul style="list-style-type: none"> • CWGA TG to consider stakeholder input • Draft presentation to the RMAC in early 2025 • Review CAL FIRE prescribed herbivory draft for Fuels Reduction Guide • Prescribed Herbivory Technical Guidance draft planned for mid- to late 2025 • 1st SB 675 Deliverables <ul style="list-style-type: none"> • First draft guidance for Task Force’s Strategic Action Plan • Local and regional grazing guidance 	<ul style="list-style-type: none"> • Ongoing • When received • Mid- to late 2025 • 06/2025 • 12/2025 	X			X

Table 4. Continued next page.

Table 4 (Panel 2 of 5). 2025 Annual Goals and Objectives to meet RMAC Priorities, continued from previous page.

Goals, Objectives, Leads & Partners, and Estimated Completion Dates				Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Status	Estimated Completion	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 2. Support outreach, education, and workforce development to build rangeland management expertise in the State.							
2a. RMAC action team to develop relationships with the CLFA and the CRM Panel, and establish, develop, and implement joint CRM-RPF annual fuels management training.	<ul style="list-style-type: none"> • Dr. Marc Horney, Jeremy Walker, Lance Criley, Joel Kramer • <i>Dr. Susan Marshall, YG Gentry</i> • <i>CLFA, CFA, RCDs, PBAs, CAL FIRE, local fire departments, Cal-Pac SRM CRM Panel, PFEC</i> 	<ul style="list-style-type: none"> • Conversations ongoing with CLFA, CFA, and other partners to develop oak woodland training in spring 2025 • Established action team members late 2024 	05/2025		X	X	
2b. Coordinate CRM and RPF requirements and exam contents where appropriate.	<ul style="list-style-type: none"> • Dr. Marc Horney • <i>Dr. Susan Marshall, Dr. Jamie Bartolome, Denise Defreese</i> • <i>Cal-Pac SRM CRM Panel, OPFR, PFEC</i> 	Conversations ongoing with CRM Panel members and Board.	12/2025		X		
2c. Promote existing efforts to develop a statewide training program for potential CRMs.	<ul style="list-style-type: none"> • Dr. Marc Horney • <i>Dr. Susan Marshall</i> • <i>OPFR, Cal-Pac SRM CRM Panel, PFEC</i> 	California Polytechnic State University, Humboldt is organizing a course to provide statewide training for CRMs; hope to announce by spring 2025.	12/2025		X		
2d. Meet with CRM Panel and Cal-Pac SRM leadership to discuss methods of promoting CRM utilization and/or further development of the program.	<ul style="list-style-type: none"> • Dr. Marc Horney, Dr. Stephanie Larson • <i>Dr. Susan Marshall</i> • <i>Cal-Pac SRM CRM Panel</i> 	The Chair will agendize a conversation between the RMAC and the CRM Panel with the Cal Pac SRM membership at the spring 2025 meeting on this topic.	12/2025		X		

Table 4. Continued next page.

Table 4 (Panel 3 of 5). 2025 Annual Goals and Objectives to meet RMAC Priorities, *continued from previous page.*

Goals, Objectives, Leads & Partners, and Estimated Completion Dates				Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Status	Estimated Completion	I - Advisement	II - Education	III - CDFA	IV - Assessment
2e. Invite experts to discuss integrated fuels treatments including prescribed herbivory at a public RMAC meeting.	<ul style="list-style-type: none"> • <i>Lenya Quinn-Davidson</i> • <i>CAL FIRE, UCCE/UCANR, PBAs, local fire departments</i> 	Foundational presentation on prescribed burning Burn Boss Program (CARx) in late 2024; expand on this in 2025.	12/2025		X		
2f. Conduct and promote a collaborative annual educational workshop series on a topic of current significance in California rangelands.	<ul style="list-style-type: none"> • Joel Kramer, Dr. Marc Horney, Dr. Stephanie Larson, Bart Cremers • <i>UCCE/UC ANR, NRCS, CAL FIRE, BLM, CDFW</i> 	Survey developed to solicit input on stakeholder and agency needs and inform development of the 2025 educational series.	12/2025		X		

Table 4. *Continued next page.*

Table 4 (Panel 4 of 5). 2025 Annual Goals and Objectives to meet RMAC Priorities, *continued from previous page.*

Goals, Objectives, Leads & Partners, and Estimated Completion Dates				Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Status	Estimated Completion	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 3. Collaborate with advised and related agencies, Native American tribes, and other administrative bodies to prioritize rangeland management research priorities and utilize networks to monitor and promote planning to address concerns.							
3a. Regularly solicit requests rangeland management topics and extend invitations for periodic public reports on activities and issues.	<ul style="list-style-type: none"> • RMAC members • <i>Advised agencies (CDFA, CalEPA, CNRA, Board)</i> 	Ongoing	Ongoing	X			X
3b. Facilitate an inventory of existing land management plans and a system for periodic reporting of range management activities to meet progress reporting requirements of state programs, including the Nature-Based Solutions Climate Targets (AB 1757 ¹⁷).	<ul style="list-style-type: none"> • Dr. Stephanie Larson, Dr. Marc Horney • <i>Natural and Working Lands Science Team, Advised agencies (CDFA, CalEPA, CNRA, Board)</i> 	Board staff shared current repository with Chair and Vice-Chair; RMAC members to provide additional data to compile.	12/2025		X		X

Table 4. *Continued next page.*

¹⁷ https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1757

Table 4 (Panel 5 of 5). 2025 Annual Goals and Objectives to meet RMAC Priorities, continued from previous page.

Goals, Objectives, Leads & Partners, and Estimated Completion Dates				Objective Relationship to RMAC Priorities			
OBJECTIVE	Lead RMAC Member(s) & Partners	Status	Estimated Completion	I - Advisement	II - Education	III - CDFA	IV - Assessment
GOAL 3. Collaborate with advised and related agencies, Native American tribes, and other administrative bodies to prioritize rangeland management research priorities and utilize networks to monitor and promote planning to address concerns.							
3c. Initiate proof-of-concept projects or small-scale collaborative investigations of grazing impacts, including those related to CDFA mandates FAC § 7271 and 7273.	<ul style="list-style-type: none"> Joel Kramer, Lance Criley, Jeremy Walker, Cole Bush, Dr. Stephanie Larson, Dr. Marc Horney RCDs, UCCE/UCANR Hopland Research & Extension Center 	Ongoing efforts to develop demonstration projects and platform to share project outcomes (e.g., written updates and in-person workshops and field tours).	Ongoing		X	X	X

Key: BLM = Bureau of Land Management; Board = Board of Forestry & Fire Protection; CalEPA = CA Environmental Protection Agency; CAL FIRE = Department of Forestry & Fire Protection; Cal-Pac SRM = CA Pacific Section of the Society for Range Management; CDFW = CA Department of Fish & Wildlife; CFA = California Forestry Association; CLFA = CA Licensed Foresters Association; CNRA = CA Natural Resources Agency; CDFA = CA Department of Food & Agriculture; CRM = Certified Rangeland Manager; CWGA TGC = CA Wool Growers Association - Targeted Grazing Committee; DGS = CA Department of General Services; FAC = Food and Agriculture Code; NRCS = Natural Resources Conservation Service; PBA = Prescribed Burn Association; PFEC = Professional Foresters Examining Committee; RCD = Resource Conservation District; RMAC = Rangeland Management Advisory Committee; RPF = Registered Professional Forester; SLGLLM = State Lands Grazing License & Land Management, a subcommittee of the RMAC; Task Force = Wildfire & Forest Resilience Task Force; UCCE/UCANR = UCCE = University of CA Cooperative Extension/University of CA Division of Agriculture and Natural Resources.

V. RANGELAND RESOURCE CONCERNS and PROGRESS

California rangelands face a variety of complex social and environmental challenges. Throughout the course of conducting its annual business at open public meetings, RMAC members, members of the public, and other interested stakeholders bring issues related to rangelands to the attention of the RMAC. To address issues needing discussion or other actions, Board staff and RMAC members work to secure expert speakers to bring information to the public, facilitate discussions about issues and potential solutions, and bring these issues to the attention of the Board as appropriate. Topics of concern related to rangeland resources that were discussed at public RMAC meetings, potential actions taken to address the challenges, and ongoing or emerging challenges are summarized below.

- The [Williamson Act](#)¹⁸ continues to have an unclear pathway. Also known as the **California Land Conservation Act of 1965** (see [Government Code § 51231](#)¹⁹), the Williamson Act helped preserve agricultural and open space lands by providing a mechanism for local governments and landowners enter into voluntary contracts to restrict enrolled lands to agricultural and open space uses, typically for 10-year rolling terms, in exchange for property tax reductions as property tax was assessed on the value of the land as if it was not developable. Prior to this statute, property taxes were often prohibitively high based on the potential market value of the land, resulting in many agricultural landowners selling land to developers for conversion to urban uses. To compensate local governments for lost property tax revenue, the state would make “subvention payments” to cover a substantial portion of lost revenue. Subvention payments were sharply cut in 2009, and fully removed in 2011. While the state no longer provides subvention payments to reduce property taxes on enrolled lands, 52 counties administer local Williamson Act programs, along with some cities. Today, enrolled owners may see a 20 to 70% reduction in property taxes (Wilber et al. 2024).

Acres enrolled in California have trended downward, with peak enrollment of over [16 million acres in 2004, but only around 10 million acres enrolled in 2021](#).²⁰ In 2022 the Department of Conservation (DOC) [reported](#)²¹ that over 90,000 acres had come out of protection under the Williamson Act, and an additional 317,882 acres were planned for non-renewal in the following decade. Due to the discontinuation of reporting requirements in 2022 (see [SB 574 2021–2022: Agricultural Preserves: Williamson Act](#)²²), it is also likely that underreporting of enrollment has occurred, and as the state has given no indication that it will resume subvention payments, reporting rates will likely continue to decline. It is unclear how the discontinuation of state subvention payments in 2011 and reporting requirements in 2022 may or may not impact the number of enrolled acres, the likelihood of conversion of agricultural lands to urban uses, the rates of conversion, or the loss of ecosystem services and values on natural and working lands. A [2024 update](#) from the DOC ([DOC 2024](#)) reported that 16 million acres of California’s 30 million acres of farmland were protected under the Williamson Act in California.

¹⁸ <https://www.conservation.ca.gov/dlrp/wa>

¹⁹ https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=51231.&lawCode=GOV

²⁰ https://www.conservation.ca.gov/dlrp/wa/Documents/WA_CEQA%20Presentation%2010.2022.pdf

²¹ https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=51231.&lawCode=GOV

²² https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB574

- Policy advocacy efforts are a common behind-the-scenes component of the legislative process. RMAC stakeholders are interested in learning more about upcoming and current legislation and may highlight concerns that potential policy changes may alleviate. To shed light on recent activities in this realm, Brian Shobe, Associate Policy Director at [California Climate and Agriculture Network](#)²³ (CalCAN)—a coalition of sustainable and organic farming organizations—may speak at RMAC meetings throughout the year about the organization’s advocacy efforts for state investments in research and assistance for farmers and ranchers in California to become more climate resilient. In 2024 Mr. Shobe provided several updates on SB 675 (see Section III. RMAC Accomplishments) and provided support to the RMAC in coordinating working groups, points of contact, and potential implementation steps. The RMAC will face substantial challenges meeting the mandates of SB 675 due to understaffing, lack of funding, and short timelines, but hopes to mitigate these issues with increased RMAC member contributions and hiring of a student intern. There continues to be substantial need for new and ongoing support of grazing when and where appropriate, both in terms of increasing understanding within public and agency perceptions, and in terms of resources, including funding for supporting projects.
- State funding opportunities to support invasive plant management has increased recently, and while funding around healthy soils practices has had some short-term funding in recent years, funding is not being currently offered. Increases in the spread of invasive plant species that are less palatable to livestock are a continuing management challenge. The Food and Agriculture Code (FAC) mandates that the CDFA consult with the RMAC on their **Noxious Weeds Program**. CDFA is charged with managing funds received for the Noxious Weed Management Account. Article 1.7. Noxious Weeds Management of the [Food and Agriculture Code \(FAC\) § 7271\(c\)\(2\)\(A\)](#)²⁴ states *“Twenty percent shall be made available toward research on the biology, ecology, or management of noxious and invasive weeds; the mapping, risk assessment, and prioritization of weeds; the prevention of weed introduction and spread; and education and outreach activities. These moneys shall be made available to qualified applicants through a grant program administered by the department. Proposals shall be evaluated in consultation with the Range Management Advisory Committee, established pursuant to Section 741 of the Public Resources Code, with an emphasis placed on funding of needs-based, applied, and practical research.”* In addition, [FAC § 7273\(a\)](#)²⁵ states that the CDFA *“... shall designate and provide staff support to an oversight committee to monitor this article and shall consider input from weed management areas, county agricultural commissioners, and the Range Management Advisory Committee.”*

The Noxious Weed Program at CDFA has a history of dormancy and revival, and this program was only recently revived and staffed in 2024. One-time funding of \$10 million was allocated to the Noxious Weed Grant Program account, and funding of \$2.4 million was made available in FY 2022/23. Fifty-two counties were awarded funding for the survey and/or control of Noxious Weeds

²³ <https://calclimateag.org/>

²⁴ https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=FAC§ionNum=7271.

²⁵

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=7273.&nodeTreePath=5.4.1.2&lawCode=FAC

defined within the [California Code of Regulations](#)²⁶ 4500 list and or weeds identified by CDFA as being A, B, or Q rated weeds in that county. Projects are slated to run from July 1, 2023 to June 30, 2025. The involvement of the RMAC was not requested in the review of applications for the [2023 Noxious Weed Grant Program](#).²⁷ In 2024 a new Senior Environmental Scientist was hired to manage the program in 2024, and the RMAC began engagement with this new personnel in December to investigate potential opportunities and synergies to bolster noxious weeds management, education, and outreach. Program goals are highly synergistic with the current needs and priorities of RMAC stakeholders and partners, and include increasing the profitability of cropland and rangeland, reducing the fire hazard and fire control costs in the state, protecting the biodiversity of native ecosystems, and increasing water supply and flow. As the CDFA and RMAC have a statutory nexus to address noxious weeds, the RMAC also incorporated one new objective into the 2024 Annual Priorities based on input received from the CDFA.

To further increase engagement with the CDFA, RMAC Members Kramer and Bush were appointed as RMAC representatives to interact with the [Healthy Soils Initiative](#)²⁸ under the CDFA in late 2022; however, little to no progress was made on the part of the RMAC in furthering efforts since then to showcase results or case-studies for range-related projects receiving Demonstration Block Grants through the [Healthy Soils Program](#)²⁹ (HSP). Discussions around the possibility of developing field tours or workshops highlighting results and implications for management born out of HSP Demonstration Grants have been ongoing, but state budget cuts to travel funding in 2024 limited the ability of the RMAC to partner with grantees.

Moreover, HSP Demonstration Grants were not funded in FYs 2022/23 or 2023/24, and the most recent awards (see [2023 HSP Demonstration Grant Awards](#)³⁰) did not include livestock or range-related projects. The [Healthy Soils Program Block Grant Pilot](#)³¹ program awarded 14 block grants in FY 2022/23, and funding may be awarded through those allocations to provide financial assistance to California agricultural operations through regional block grant administrators. For example, just under \$5 million was awarded to [Fibershed](#)³² and partner the [Carbon Cycle Institute](#)³³ for producers in Fresno, Humboldt, Kings, Mendocino, Merced, Modoc, San Luis Obispo, and Solano counties.

[HSP Incentive Grants](#)³⁴ fund range-related practices including prescribed grazing, range plantings, and riparian forest buffer. The most recent HSP Incentive Grants opened on January 22, 2024, and most of that funding has now been offered. Funding for this program will not continue in FY 2024/25.

²⁶

[https://govt.westlaw.com/calregs/index?_lrTS=20170110205034927&transitionType=Default&contextData=\(sc.Default\)&bhcp=1&bhhash=1#38;Action=Welcome](https://govt.westlaw.com/calregs/index?_lrTS=20170110205034927&transitionType=Default&contextData=(sc.Default)&bhcp=1&bhhash=1#38;Action=Welcome)

²⁷ <https://www.grants.ca.gov/grants/2023-noxious-weed-grant-program/>

²⁸ <https://www.cdfa.ca.gov/healthsoils/>

²⁹ <https://www.cdfa.ca.gov/oefi/healthsoils/>

³⁰ https://www.cdfa.ca.gov/oefi/healthsoils/docs/2023_HSP_Demo_awarded.pdf

³¹ <https://www.cdfa.ca.gov/oefi/healthsoils/BlockGrantProgram.html>

³² <https://fibershed.org/>

³³ <https://www.carboncycle.org/>

³⁴ https://www.cdfa.ca.gov/oefi/healthsoils/docs/2024/2024_hsp_incentives_rga.pdf

The RMAC will continue to share information with its stakeholders on funding opportunities to improve healthy soils and invasive plant management practices on farms and ranches in California.

- **Workforce Development** continues to be a significant challenge in the rangeland management world, with a relatively small number of professionals with rangeland expertise or certification working in the State, and less than 80 currently licensed **Certified Rangeland Managers (CRM)** across California, of which approximately one-third provide rangeland management services. The CRM license is required for professional practice of rangeland management on non-federal forested landscapes as a specialty authorized under the Professional Foresters Licensing Act that requires the Registered Professional Forester license for the practice of forestry. While not legally required in many situations, the CRM license assures a level of rangeland expertise necessary to adequately develop suitable rangeland management plans that will sustain and protect range resources in California. A long-term trend in range experts retiring from agencies, alongside a lack of new graduates with adequate range credentials, has continued in California. Current challenges in rangeland resource personnel recruitment include:
 - A resource pool of landowners and managers with sufficient rangeland expertise to act as qualified rangeland consultants, but who are lacking the required coursework for eligibility to sit for the CRM exam.
 - The need for a clear crosswalk of coursework offered at learning institutions in California and beyond to bridge any gaps in requirements for CRM exam eligibility.
 - A need for identification of pathways and programs—including the development of such mechanisms—to fill gaps in rangeland education and skills, particularly those required for CRM exam eligibility.
 - A lack of place-based learning environments or programs on natural and working lands where meaningful learning opportunities may be cultivated, as well as a mechanism for crediting participants with the necessary rangeland management knowledge, skills, and abilities to act as range consultants in California and beyond.
 - The need for a centralized location for student and practitioner resources, particularly as they relate to the passage of the CRM exam.
 - Low pay scales and limited opportunities for advancement in the rangeland field; low recruitment rates due to a lack of qualified candidates at the local, state, and federal level for rangeland job classifications.

Dr. Susan Marshall, professor of Rangeland Resources and Soils at California Polytechnic State University, Humboldt, and Dr. Horney continue to work at local (California-Pacific section of the Society for Range Management) and national (Society for Range Management) levels to address constraints and challenges in workforce development efforts. Recent discussions with the Board and the RMAC have included addressing exam prerequisites, which are difficult to meet for many otherwise qualified potential applicants, despite their breadth of range experience and knowledge.

- **Aging Operators and Unsure Succession Plans:** The median age of California ranchers continues to rise, and the prospect for younger generations succeeding these operations continue to decrease. The number of farms and ranches also continues to decrease, while the average farm or ranch size is smaller in California than the national average. There are no state-wide initiatives or programs to

assist ranchers in succession planning, although some events occurred in 2024 (e.g., [Conserving Your Legacy](#)³⁵), paid courses are offered (e.g., [The Regenerator: A Year of Farm Succession Planning](#)³⁶), and online resources are available (e.g., [California Land Transfer Navigators](#),³⁷ [Farm Succession Guidebook](#)³⁸).

- The **interannual variability** of rangeland quality and productivity can make livestock management highly uncertain. Successful and well-managed grazing requires flexible grazing contracts that allow for a variety of production conditions in any given year, and adaptive frameworks to guide managers to make the best grazing management decisions for the conditions present at any given time. **Rigid grazing agreements** exacerbate these management challenges, particularly those that base agreement renewals on performance criteria and/or compliance constraints, such as contracts that dictate the minimum or maximum amount of vegetation that can or must be removed, the exact number of animals allowed on a parcel, or rigid on/off dates that do not allow for bioclimatic variability. For example, 2023 was a heavy rainfall year and many graziers could not enter allotments until after May due to saturated soils and the potential for damage, but grazing agreements would not allow animals into allotments after May. This resulted in displaced animals with limited options for feed, overgrown areas that could not be grazed, and organizations on all sides failing to meet their ecological, social, and economic goals, in addition to unmitigated fire risk and public safety concerns due to high fuel loads. Limited grazing contract terms of 1–5 years are also a major impediment to grazing. Graziers may be unable or unwilling to invest time and money into proper management and maintenance of a parcel that they may not be allowed access to over the longer term (e.g., 10+ years). While the state-mandated limitations on contract duration of five years is unlikely to change in the near future, the efforts of the SLGLLM are intended to assist grazing operators and land managers in navigating the process of finding and applying for grazing permits, developing grazing licenses, and producing complementary and adaptive grazing management plans to better ensure successful environmental outcomes for the permittee and landowners.
- A variety of fuel management activities are commonly used throughout California, including mechanical and manual treatments, prescribed fire, and herbicide application. While livestock grazing is increasingly at the forefront of vegetation management discussions, it still lags in use across the state for a variety of reasons, including **organizational or community resistance to grazing for fuels reduction**. For example, CAL FIRE published its [Fuels Reduction Guidance](#)³⁹ in 2021 ([CAL FIRE 2021](#)) which included most of these vegetation management activities except for information on prescribed grazing. The RMAC offered to produce an informational pamphlet addendum and a more in-depth white paper addressing prescribed herbivory as a fuels management tool for use alone or in combination with other tools. While CAL FIRE received the draft copy of the pamphlet addendum and considered including it in the current or future versions of their Fuels Reduction Guidance, ultimately it was decided that the information would not be included. The RMAC has received information that this topic may be reopened for consideration

³⁵ <https://rangelandtrust.org/events/succession-planning-workshop-2024/>

³⁶ <https://www.californiafarmlink.org/courses/the-regenerator>

³⁷ <https://farmland.org/land-transfer-navigators/california/>

³⁸ <https://www.californiafarmlink.org/toolshed/farm-succession-guidebook>

³⁹ https://bof.fire.ca.gov/media/hw3lmvd2/7-cal-fire-fuels-reduction-guide-final-2021_ada.pdf

but has not received any guidance regarding potential next steps since summer 2023. In summer of 2024, RMAC staff received a request from CAL FIRE Communications Department to provide information on prescribed grazing for a section in the Fuels Reduction Guide. The RMAC provided the pamphlet it previously produced, requested additional information about the effort, and offered assistance in reviewing the content, but has not received responses since.

- **Current state budget constraints and an ongoing lack of program funding** for the RMAC greatly limits its ability to develop, implement, and sustain long-term, effective programs to protect and sustain rangeland resources in California. The RMAC does not have an operating budget and relies on volunteers and partnering organizations to implement any activities. Additionally, one Board staffer is allocated only 15% time to the RMAC. While efforts have been made to support future hiring of a student intern in early 2025, and one additional full-time position in late 2025, the lack of an operating budget still limits the work of the RMAC. Cutbacks to state travel budgets in 2024 greatly limited the outreach and education activities of the RMAC. Need and interest remain high for the expanded workshops and educational offerings of the RMAC in future years, but limited staff time and ability of members to allocate time to RMAC efforts restrict the its reach and influence.
- **Unaffordable or unavailable fire insurance** in high-risk WUI areas of California due to insurer-initiated non-renewals in California may mean landowners go uninsured or relocate to states where fire insurance is more attainable. This is an ongoing issue that has prompted much discussion and failed attempts by the legislature to develop a plan to keep insurance companies in California, and to develop affordable solutions for California residents and businesses. The matter will be raised again in the legislature in 2024. In a related vein, **gaps in prescribed fire insurance** have been bolstered by the allocation of a \$20 million [Prescribed Fire Liability Claims Fund Pilot](#)⁴⁰ which will cover losses in the rare instance that a prescribed or cultural burn escapes control, providing up to \$2 million in coverage for prescribed fire projects led by a qualified burn boss or cultural practitioner. The establishment of the recent [State Certified Prescribed-Fire Burn Boss](#)⁴¹ (CARx) program provides an avenue for the training and certification of private individuals to become Burn Bosses, and limits their liability on prescribed fire projects, which may increase the pace and scale at which prescribed fire may be used as a tool for fuels management across the state. The RMAC welcomed Anthony Stornetta to talk to its stakeholders about the CARx Program and will continue to bring light to issues and potential resources around these matters.
- **Compliance with CEQA** may represent a considerable regulatory hurdle and financial investment for projects involving grazing, but often it is unclear when CEQA requirements must be met. The RMAC continues to invite experts from CAL FIRE and beyond to provide detailed information at meetings and workshops to assist managers in navigating this process. Obtaining the necessary expertise and funding the cost of conducting a compliant CEQA assessment for a grazing project is often prohibitive, and assistance programs for graziers and agencies could help fill this need.
- Other challenges raised over the year during public RMAC meetings included issues related to the **Livestock Pass Program, prohibition of gas engines, and post-fire landscape management**. The

⁴⁰ <https://wildfiretaskforce.org/prescribed-fire-liability-claims-fund-pilot/>

⁴¹ <https://www.fire.ca.gov/osfm/what-we-do/state-fire-training/professional-certifications/state-certified-prescribed-fire-burn-boss>

RMAC will be working to secure speakers and develop activities to provide additional information to stakeholders, and will investigate avenues to fill these potential needs, including education and outreach, online resources, workshops, and recommendations for policy changes if warranted.

VI. CONCLUSION

The RMAC has substantially renewed efforts in the past several years to establish or re-invigorate collaborations with related agencies and organizations to better leverage the various resources, expertise, and efforts of these institutions to collectively support improved rangeland resource conditions across the State. The RMAC has marked substantial but annually variable growth in its annual educational program by capitalizing on its renewed collaborations with state agencies, internal state departments, and task forces, as well as local and state-wide range-related organizations. The RMAC expanded from three virtual-only webinars in 2022 to four webinars and five in-person field tours in 2023 but reduced the program back down to one field tour in 2024 due to travel restrictions because of state budget constrictions. In 2024 the RMAC pivoted its attention from prescribed grazing for fuels management to the effects of grazing on native flora and fauna. To conduct this tour without the use of state funds, the RMAC leveraged resources with conservation-minded organizations, and the California Rangeland Trust sponsored lunch for speakers and participants.

In the coming year, the RMAC will continue to support informational needs and efforts for the successful application of prescribed grazing and will additionally embark on a new educational focus around the impacts of livestock grazing on native flora and fauna and their habitats. The RMAC and Board staff representatives will continue to liaise with advised agencies, departments, related partner organizations, and task forces, although in a reduced capacity and on a virtual basis due to state budget constraints and limited staff support. Where possible, the RMAC will partner with other organizations that can lead in-person workshops focused on contemporary range-related issues and best management practices. In addition, the RMAC will continue to coordinate with outside organizations to support the development of technical guidance, literature reviews/white papers, and pamphlets to support range resource management from the level of the individual to the state and federal agency. The RMAC will continue to support efforts by stakeholders to convert science-based results into reasonable, actionable state policies and guidance to improve rangeland conservation and management.

VII. REFERENCES CITED

- California Department of Forestry & Fire Protection (CAL FIRE). 2021. CAL FIRE Fuels Reduction Guidance. Available online: bof.fire.ca.gov/media/hw3lmvd2/7-cal-fire-fuels-reduction-guide-final-2021_ada.pdf. Verified December 13, 2024.
- Department of Conservation [DOC]. 2024. Williamson Act Frequently Asked Questions. Department of Conservation, Division of Land Resource Protection. Available online: <https://www.conservation.ca.gov/dlrp/wa/Documents/Williamson%20Act%20FAQ%202024.pdf>. Verified December 20, 2024.
- Larson, S. and C. Bush. 2024. California Range Management Advisory Committee (RMAC)'s Role in Wildfire Resilience: Bringing Prescribed Grazing to the Forefront. A presentation to the California Board of Forestry and Fire Protection, Sacramento. November 06, 2024. Available online: https://bof.fire.ca.gov/media/eeebeunh/full-16-rmacs-role-in-wildfire-resilience_boff-fall-2024-mtg-presentation.pdf. Verified December 3, 2024.
- Range Management Advisory Committee (RMAC). 2015. Prescribed Herbivory for Vegetation Treatment Projects. January 2020. California Board of Forestry & Fire Protection, Sacramento. Available online: <https://bof.fire.ca.gov/media/7208/white-paper.pdf>. Verified January 14, 2025.
- RMAC. 2020. Strategic Plan. January 2020. Board of Forestry & Fire Protection, Sacramento. Available online: <https://bof.fire.ca.gov/media/9952/rmac-2020-strategic-plan.pdf>. Verified January 14, 2025.
- RMAC. 2023. 2022 Annual Report and Workplan. February 23, 2023. Approved March 8, 2024 by the California Board of Forestry & Fire Protection, Sacramento. Available online: <https://bof.fire.ca.gov/media/hgylevzn/2023-rmac-annual-report-and-workplan-final.pdf>. Verified December 03, 2024.
- RMAC. 2024. 2023 Annual Report and Workplan. March 19, 2024. Approved April 10, 2024 by the Board of Forestry & Fire Protection, Sacramento. Available online: <https://bof.fire.ca.gov/media/hgylevzn/2023-rmac-annual-report-and-workplan-final.pdf>. Verified December 03, 2024.