

**2022 RANGE MANAGEMENT
ADVISORY COMMITTEE
ANNUAL REPORT AND WORKPLAN**



**STATE BOARD OF FORESTRY AND FIRE
PROTECTION**

Chair: Dr. Marc Horney

Vice-Chair: Rich Ross

February 23, 2023

1 **EXECUTIVE SUMMARY**

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

9 **I. RMAC PROCESS SUMMARY**

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

22 The RMAC envisions a resilient rangeland landscape in California that provides a diversity of ecosystem
23 services to support the state’s ecological and human health. To do so, the RMAC may consider issues
24 related to California’s rangeland resources, provide recommendations on addressing them, facilitate strong
25 relationships with local, state and federal agencies and develop solutions that are based on environmental,
26 social, and economic information that is current, data-driven, and considers diverse perspectives.

27 The RMAC reports on its activities in a variety of ways. The RMAC Strategic Plan (RMAC 2020) is a formal
28 document that guides the activities and longer-term (5-year) goals of the RMAC and is revised on a 5-year
29 interval. The RMAC conducts open meetings a minimum of four times per year (quarterly) to conduct RMAC
30 business, although meetings generally occur 6 to 8 times per year. Meetings are utilized to conduct RMAC
31 business in the public eye and may include reports on progress toward goals and objectives of the RMAC,
32 final reports on RMAC endeavors or other range-related efforts, and other presentations or discussions on
33 range-related issues or other research. The RMAC Chair or Board staff also report on the RMAC’s activities
34 via verbal updates at Board meetings throughout the year and will begin providing longer informational
35 presentations on range-related issues under the purview of the Board in the coming 2023 year.

36 The RMAC has also historically provided the Board with a short summary of its goals and activities for
37 inclusion in the Board’s annual report (e.g., Board 2022). At the September 16, 2022 meeting, the RMAC
38 decided to additionally provide a more comprehensive, stand-alone Annual Report and Workplan (this
39 ‘Report’) to the Board after the close of each calendar year. This report provides information on RMAC

40 membership, documents progress towards the Committee’s 2022 annual priorities, lays out the
 41 Committee’s 2023 annual priorities, and details other annual accomplishments and ongoing RMAC efforts.

42 **II. CURRENT APPOINTED RMAC MEMBERS AND STAFF**

43 In 2022, the Committee had one Chair, one Vice-Chair, and an additional 9 members, including three
 44 members of the public, one member from the California Resource Conservation Districts, seven members
 45 appointed from organizations representing rangeland owners, and one Board-appointed, non-voting, ex-
 46 officio member (see Table 1).

47 **Table 1. Current RMAC Membership and Support Staff**

Name	Seat Type	Affiliation	Term End
Marc Horney, Ph.D., Chair	Range Organization	California Polytechnic State University, San Luis Obispo	01/2023
Richard Ross, Vice-Chair	Range Organization	California Cattlemen’s Association	01/2023
Billie Roney	Range Organization	California Cattlemen’s Association	01/2024
Taylor Hagata	Range Organization	California Farm Bureau	06/2024
Bart Cremers	Range Organization	California Farm Bureau	01/2023
Stephanie Larson, Ph.D.	Range Organization	University of California Cooperative Extension	01/2026
Cole Bush	Range Organization	California Wool Growers Association	01/2026
Andrée Soares	Range Organization	California Wool Growers Association	01/2026
Paul Starrs, Ph.D.	General Public	Professor Emeritus, University of Nevada, Reno	01/2026
Lance Criley	General Public	United States Forest Service	01/2026
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 and Fire Protection	n/a
Deniele Casarubbia	Staff Services Analyst	Board of Forestry and Fire Protection	n/a
Kristina Wolf, Ph.D.	Environmental Scientist	Board of Forestry and Fire Protection	n/a

* The Board member shall have no vote in Committee actions except in the case of a tie

48 The Chair and Vice-Chair are appointed on an annual basis; Chair Dr. Marc Horney and Vice-Chair Rich Ross
 49 were reappointed to those positions for an additional year through January 2023. Member Lance Criley was
 50 reappointed to a four-year term to their seat representing the U.S. Forest Service in January 2022. Four new
 51 members were appointed to the RMAC for four-year terms beginning in January 2022:

- 52 • Dr. Stephanie Larson, Director of U.C. Cooperative Extension in Sonoma County, joined the RMAC
53 as a member of an organization that represents rangeland owners;
- 54 • Cole Bush, member of the California Wool Growers Association and owner-operator of
55 Shepherdess Land & Livestock, also joined the RMAC as a member of an organization that
56 represents rangeland owners;
- 57 • Dr. Paul Starrs, professor emeritus of Geography at University of Nevada, Reno, joined the RMAC as
58 a representative of the Public; and,
- 59 • Joel Kramer, Regional Agricultural Specialist for the Resource Conservation District of Greater San
60 Diego County, joined the RMAC as a representative of California Resource Conservation Districts.
- 61 All RMAC seats were filled in 2022, and a quorum was achieved at five of six meetings.

62 III. SUMMARY OF RMAC ACCOMPLISHMENTS

63 In 2022, the RMAC accomplished the following:

- 64 • The RMAC **met six times** in open, virtual or hybrid public webcast meetings to conduct business,
65 and a quorum was reached at five of these meetings. Meeting activities included approval of
66 meeting minutes; membership updates, recruitment, and seat appointments; legislative and
67 partner organization updates; public education and outreach presentations by rangeland and
68 natural resource representatives, professionals, and practitioners.
- 69 • **Re-appointed** Dr. Marc Horney as Chair and Member Rich Ross as vice chair to one-year
70 appointments and Lance Criley to a four-year term, and **welcomed four new members** to four-year
71 appointments on the RMAC, all beginning in January 2022.
- 72 • The **State Lands Grazing License and Land Management (SLGLLM) subcommittee** met for the first
73 time in January 2022 and began developing templates for grazing agreements.
- 74 ○ Members of the SLGLLM subcommittee are as follows:
- 75 ■ Lance Criley: Rangeland Management Specialist, U.S. Department of Agriculture (USDA)
76 United States Forest Service (USFS), RMAC representative
- 77 ■ Jeanette Griffin: Environmental Scientist, California Department of Fish & Wildlife (CDFW)
- 78 ■ Richard M. Ross: Attorney, Ross Ranch, RMAC representative
- 79 ■ Kevin Conway: State Forest Program Manager, Jackson State Demonstration Forest
- 80 ■ Tony Psihopaidas: Assistant Chief, State Owned Leasing and Development, State
81 Department of General Services (DGS) (through June 2022)
- 82 ■ Lawrence Ford: Certified Range Manager, owner-operator LD Ford Rangeland Conservation
83 Science
- 84 ■ Bart Cremers: California Farm Bureau Federation
- 85 ■ Tracy Kay Schorr: Livestock and Natural Resources Advisor, Plumas, Sierra, and Butte
86 counties, UCCE/UC ANR
- 87 ■ Katie Delbar: County Executive Director, USDA Farm Service Agency

- 88 ○ A public comment period was opened from July 22 through August 26, 2022 to solicit additional
89 public and stakeholder comment on the draft grazing license, land/grazing management plan,
90 and guidance booklet developed by the subcommittee.
- 91 ○ The original timeline tentatively estimated draft deliverables to be produced by June 2022, but
92 the retirement of the DGS representative and related product interdependencies resulted in a
93 delay, and DGS representative replacements were confirmed in November 2022. The
94 deliverable timeline will therefore be revised at the first meeting of 2023.
- 95 ● The Department of Forestry & Fire Protection (CAL FIRE) and the Wildfire Prevention Grants
96 Program partnered with RMAC to plan a January 18, 2023 workshop, **Applying for a Wildfire
97 Prevention Grant**, with a focus on prescribed grazing projects. The grant application opened
98 December 14th, and representatives from UCCE/UC ANR and CAL FIRE will speak at this virtual
99 workshop to assist graziers interested in applying for this grant funding to support grazing projects
100 for fuel reduction.
- 101 ● An **Educational Workshop Series Action Team** was formed at the July RMAC meeting and began
102 planning for a winter-spring (2023) annual RMAC Workshop Series on grazing agreements with a
103 focus on prescribed grazing, vegetation management, and fuels reduction.
- 104 ○ Partnered with California Polytechnic State University, San Luis Obispo (CPSLO), Swanton Pacific
105 Ranch (SPR), and the California Fire Science Consortium (CAFSC) to cosponsor, fund, and
106 implement three virtual learning sessions and four in-person field days planned tentatively
107 from January through March 2023 across California (East Bay Regional Parks, Paso Robles, Ojai
108 Valley, and San Diego). Funding from other partners, including a SPR grant for public education
109 on fuels reduction, resources of the California Rangeland Conservation Coalition (CRCC), was
110 leveraged to support this effort.
- 111 ○ Partnered with the CRCC to provide a co-sponsored Joint Rangeland Management Conference
112 planned for February 2023, with the option to attend in person or virtually. This will be a two-
113 part workshop and summit held at the Stockton Agricultural Center: Part 1) Navigating the
114 Application and Permitting Process for Wildfire Fuels Treatment Using Targeted Grazing,
115 RMAC's no-cost workshop, and Part 2) CRCC Summit: Working Rangelands: Graze to Reduce
116 the Blaze.
- 117 ○ Slated speakers at workshops or field days include representatives from:

118	▪ UCCE/UC ANR	129	▪ Ojai Valley Fire Safe Council
119	▪ CDFW	130	▪ Ojai Land Conservancy
120	▪ California Department of	131	▪ U.C. Berkeley
121	Transportation (Caltrans)	132	▪ LD Ford Rangeland Consulting
122	▪ Vollmar Natural Lands	133	▪ East Bay Regional Parks District
123	Consulting	134	▪ Star Creek Land Stewards
124	▪ Natural Resources Conservation	135	▪ Cal Poly San Luis Obispo
125	Service (NRCS)	136	▪ The Goat Girls
126	▪ Butte Fire Safe Council	137	▪ Paso Robles Fire Department
127	▪ Shepherdess Land & Livestock	138	▪ Althouse & Meade
128	▪ Ventura Brush Goats	139	▪ San Luis Obispo Fire Safe Council
- 140 For more information, visit the RMAC webpage for meeting and event information, and visit
141 the Swanton Pacific Ranch educational series webpage.

- 142 • The process of revising the 2022 and 2023 Annual Priorities, Goals, and Objectives began in 2022.
- 143 ○ In compliance with Public Resources Code (PRC) § 741, the RMAC formally solicited agency
- 144 priorities from the Board, California Natural Resources Agency (CNRA), the California
- 145 Environmental Protection Agency (CalEPA), and the California Department of Food and
- 146 Agriculture (CDFA) for review and integration into the priorities and goals of the RMAC. Board
- 147 staff Dr. Wolf worked to incorporate these advised agencies' annual priorities into the
- 148 development of RMAC's current (2022) and 2023 Annual Priorities.
- 149 • Appointed members and support staff to teams working under advised agencies and other
- 150 organizations with synergistic goals:
- 151 ○ Member Kramer and Member Bush were appointed as RMAC representatives to the **Healthy**
- 152 **Soils Initiative** under the CDFA.
- 153 ○ As a member of the CWGA and the **CWGA's Targeted Grazing Committee**, Member Bush will
- 154 liaise with that committee to develop two work products: 1) an educational pamphlet for
- 155 Prescribed Fire to be shared with **CAL FIRE**, and potentially added to the current 2021 CAL
- 156 FIRE Fuels Reduction Guidance (CAL FIRE 2021) or incorporated into future versions of this
- 157 guidance, and 2) a white paper literature review describing the science behind prescribed
- 158 grazing, and technical guidance for incorporating prescribed grazing alone or in combination
- 159 with other vegetation management efforts and/or fuels reduction treatments.
- 160 ○ Board staff Dr. Wolf joined the **Natural Working Lands Science Team** under the CNRA to work
- 161 with and provide input to the team for integration of range-related resource issues into
- 162 climate-smart strategies. Members of this team work to inform and review modeling and
- 163 analyses for natural and working lands, advise state agencies on implementation strategies and
- 164 standardized accounting, and provide recommendations on addressing barriers to efficient
- 165 implementation of climate action in natural and working lands.
- 166 • Several speakers provided **presentations to the RMAC** audience at public meetings to provide
- 167 information on and discuss potential needs and solutions for rangeland issues in California.
- 168 Speakers and topics included:
- 169 ○ Dr. Pelayo Alvarez, California Program Director for Audubon, led a discussion of **AB-252**, and
- 170 the Department of Conservation's **Multi-benefit Land Repurposing Program**.
- 171 ○ Roger Ingram of the **CWGA Wildfire and Grazing Ad Hoc Committee** presented survey results
- 172 of targeted grazing providers in California.
- 173 ○ Jennifer Norris, Deputy Secretary for Biodiversity and Habitat at the CNRA, provided an
- 174 introduction to and led a discussion on **Pathways to 30x30: Accelerating Conservation of**
- 175 **California's Nature**.
- 176 ○ Kristan Norman, Area 2 Rangeland Specialist, and Chris Zimny, State Forester—both of NRCS—
- 177 gave an informational presentation on the **Environmental Quality Incentives Program (EQIP)**
- 178 for rangeland managers.
- 179 ○ Brian Shobe, Associate Policy Director at **California Climate and Agriculture Network (CalCAN)**,
- 180 spoke about the organization's advocacy efforts for state investments in research and
- 181 assistance for farmers and ranchers in California to become more climate resilient.

- 182 ○ Dean Kelch, who leads the Permits and Regulations Program at the CDFA, provided a
183 presentation on **CDFA Programs** and opportunities for synergistic collaborations with the
184 RMAC.
- 185 ○ Dr. Susan Marshall, professor of Rangeland Resources and Soils at California Polytechnic State
186 University, Humboldt, presented on the current state of **Certified Rangeland Managers (CRM)**
187 **in California** and constraints and challenges in workforce development efforts, and provided
188 information on a grant proposal submitted to support educational programs for comprehensive
189 and collaborative CRM training, more clear and accessible program requirements, and greater
190 access to training and testing for individuals wanting to take the CRM exam. The CRM license is
191 required for professional practice of rangeland management on non-federal forested
192 landscapes as a specialty authorized under a modification of the Professional Foresters
193 Licensing Act (AB 1903) that requires the Registered Professional Forester license for the
194 practice of forestry.
- 195 ○ Cole Bush, owner-operator of Shepherdess Land & Livestock (and member of the CWGA)
196 updated the RMAC on the **Community Supported Grazing Summit**, a workshop by the Ojai
197 Valley Fire Safe Council and Community Environmental Council of Santa Barbara, and
198 announced the launching of a new **Bilingual Grazing Manager Training**.
- 199 ○ Bre Owens, Stewardship Coordinator at the **Western Landowners Alliance (WLA)**, provided
200 background information on efforts for the WLA to apply for a **Grazing Lands Coalition Initiative**
201 **Grant**, and worked to garner RMAC support for that effort and the potential for joint WLA-
202 RMAC collaborations for future adult education efforts in range resources and management in
203 California.
- 204 ○ Stacey Sargent Frederick, Coordinator for the CAFSC, and Maurica Fitzgibbons, Fuels and
205 Vegetation Management Training Coordinator for CPSLO and SPR, spoke to the RMAC about
206 educational webinar and workshop efforts.

207 **IV. ANNUAL PRIORITIES**

208 Annual priorities are generally reviewed in the fall, developed in the winter, and voted on at the first RMAC
209 meeting of each year to guide the activities of the committee. The 2022 priorities were carried over from
210 previous years (2020 and 2021) due to continued relevancy, and limited time to revise priorities and take
211 actions due to constraints introduced by the covid-19 pandemic. The vision and mission of RMAC are
212 supported by the long-term priorities outlined in the RMAC Strategic Plan (RMAC 2020) and in the often
213 more targeted, shorter-term Goals and Objectives.

214 The RMAC's vision and mission guide its overall Priorities (**Table 2**), and annual goals and objectives are
215 developed to fulfill these long term Priorities. The RMAC's Priorities are longer term priorities of the RMAC
216 that require actions on multiple fronts to accomplish. The Strategic Plan outlines four main Priorities, but
217 the priority associated with the CDFA Noxious Weeds Program is not included in this Annual report and
218 Workplan as that program has been defunded or underfunded, and its future is uncertain at this time. The
219 RMAC will follow any changes in the program activity to determine if it should be addressed in future years'
220 goals and objectives.

221 **Table 2. Range Management Advisory Committee Long-Term Priorities**

Priority I.	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.	Share information and educational opportunities to Certified Range Managers and government agency rangeland and forestry staff to grow professional
Priority III.	Monitor for issues in rangeland science and management and convene groups of relevant professionals to address these issues

222 The annual goals and objectives of the RMAC are established, as appropriate, on an annual basis to address
 223 more time-sensitive, current issues and needs in range resource management in California, and fall under
 224 the RMAC Priorities, above. The RMAC began revising objectives and goals to meet its Priorities in 2022,
 225 based on continuing or planned actions in the 2022 and 2023 calendar years. The finalized goals and
 226 Objectives for 2022, and continuing into 2023, are as follows (also see **Table 2** for information on leads,
 227 partners, and proposed completion dates):

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

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

232 **Objectives:**

- 233 a. Develop standard template/form(s) with a guidance document for constructing grazing license
 234 agreements for use by state agencies.
 - 235 i. Template(s)/form(s) must meet requirements of state agencies that may potentially use them,
 236 including Dept. Fish & Wildlife, State Parks, State Forests, with provision for allowing
 237 modification subject to review to accommodate special requirements of any others which may
 238 request them;
 - 239 ii. be approved for this use by General Services; and,
 - 240 iii. follow standards of good practice recommended by UCCE/UC ANR and CRMs.
- 241 b. Develop or approve informational publications which agencies can use for:
 - 242 i. conducting site inventories and assessments specific to the ecological site(s) on the
 243 management unit and their management objectives,
 - 244 ii. developing adaptive management plans detailing the general use and specific objectives for the
 245 management unit, and
 - 246 iii. producing detailed grazing plans that will form the basis for grazing licenses. These will be
 247 developed from general management unit plans which include [1] clearly stated objective(s) for
 248 the grazing treatment, [2] measures used to evaluate the performance of the grazing
 249 treatments, [3] infrastructure required for the grazing treatment, [4] description of the grazing
 250 practices to be used which include, at minimum, the types, estimated average weight, and
 251 numbers of animals to be used, the season(s) when grazed, the areas to be treated with
 252 estimated acres, the stocking rate to be applied (animal units/treated area by length of time),
 253 what physical indications will be used to determine the start and end of each grazing

Commented [WK1]: Suggestions for organization and terminology?

Priority – high level
 Goal – to meet a larger priority (numeric)
 Objectives (Action Items) to meet the goals (alpha; includes subtasks/items, roman numerals)

Commented [WK2R1]: RMAC Member Response:
 I like this.

- 254 treatment, and [5] identification of any resources requiring protection from damage by the
 255 grazing practices (sensitive plant species, soils, water quality, etc.). These plans should be
 256 consistent with the content and purpose of the UCCE/UC ANR Ranch Water Quality Planning
 257 Curriculum.
 258 c. Coordinate with state agencies and major public landowners to facilitate an inventory of existing
 259 land management plans to assess which elements required for the grazing plan are already
 260 available.

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

263 **Purpose:** There are only 86 CRMs left in the State. RMAC needs to promote using that expertise in CAL FIRE
 264 for developing burn plans and conducting prescribed burns. There is a need to integrate and coordinate
 265 Registered Professional Foresters (RPFs) with Certified Rangeland Managers (CRMs) for the purpose of
 266 developing effective fuels management treatments from their different but complementary professional
 267 backgrounds, for example via combined training programs with both RPFs and CRMs to develop burn plans.

Commented [WK3]: Combined from multiple goals

Commented [WK4R3]: RMAC Member Response:
I agree with this combination.

268 **Objectives:**

- 269 a. Establish an RMAC subcommittee to develop ongoing, working relationships with the California
 270 Licensed Foresters Association and the Certified Rangeland Managers Panel with the purpose of
 271 establishing annual fuels management trainings for both CRMs and RPFs to participate in together.
 272 b. Initiate a public demonstration project for a select group of CRMs and RPFs to collaborate on a
 273 project where multiple, integrated fuels treatments requiring application of both forest and
 274 rangeland ecology practices are required.
 275 c. Work with Professional Foresters Registration to explore points within the registration/licensing
 276 processes where CRM and RPF requirements and exam contents could be intentionally
 277 coordinated.
 278 d. As needed, write letters of support for and promote the efforts of Drs. Susan Marshall and Marc
 279 Horney in obtaining funding to develop a statewide training program for potential CRMs.
 280 e. Invite CAL FIRE representatives to discuss state requirements for planning and conducting
 281 prescribed burns as a CAL FIRE employee or private "burn boss" at RMAC meetings.
 282 f. Meet with CRM Panel and CalPac-SRM leadership to discuss other methods of promoting CRM
 283 utilization and/or further development of the program.

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

Commented [WK5]: Combined from multiple goals

286 **Purpose:** Establish appropriate guidance for grazing following wildfire on California rangelands. Ensure that
 287 livestock policies required by state lands managers are consistent with the best available science identified
 288 by UCCE/UC ANR and in state efforts to mitigate the effects of climate change in the Natural and Working
 289 Lands Climate Smart Strategy. Grazing is also a fuel reduction method in the State's Wildfire Resilience

Commented [WK6]: RMAC Member Comment:
We should be consistent about this identification. UC ANR (University of California Division of Agriculture and Natural Resources) = UCCE. I think I brought that in because UC has been leaning harder on UC ANR for self-identification in recent years than UCCE. Might ask Stephanie if she agrees.

Commented [WK7R6]: Decision point: Use UCCE or UC ANR? Or both (UCCE/UC ANR) as shown currently throughout this document?

290 Action Plan, but few professionals in the state have the necessary experience to develop feasible grazing
291 plans for this purpose. State-wide training and demonstrations in methods of reducing fine fuels using
292 grazing is necessary to implement this practice at scale. Educational effort should include recommendations
293 for evaluating and mitigating site-specific grazing treatment impacts on wildlife habitats, water quality, and
294 fuel bed characteristics.

Commented [WK8]: Combined from multiple goals

295 **Objectives:**

296 a. Establish appropriate guidance for grazing following wildfire on California rangelands, with an
297 emphasis on state-managed lands. Produce an authoritative peer-reviewed publication explaining
298 what is known about requirements for post-burn “rest” from defoliation and its application to the
299 major grassland ecotypes in California (annual grasslands, blue oak savannas, coastal perennial
300 prairie grasslands, Great Basin sagebrush-steppe). This review must consider not only impacts on
301 forage production, but also potential impacts on wildlife habitats, water quality, and fuel bed
302 characteristics - and recommendations for evaluating and mitigating them on a site-by-site basis.

303 Alternatives:

- 304 • Request such a publication from UCCE/UC ANR
- 305 • Request such a publication from faculty/students at CSUs (Cal Poly SLO, Chico, Humboldt)
- 306 and/or UCs (Berkeley or Davis).
- 307 • Organize an RMAC subcommittee to produce a white paper.

308 b. Continue to conduct and promote annual educational workshop series on the use of grazing for fine
309 fuel reduction in collaboration with CAL FIRE, UCCE/UC ANR, USDA-NRCS, and others.

310 c. Work with UCCE/UC ANR to identify needs for technical and training information and establish a
311 plan for producing them.

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

Commented [WK9]: Combined from multiple goals

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

Commented [WK10]: Combined from multiple goals

Commented [WK11R10]: RMAC Member Comment:
I agree

322 **Objectives:**

323 a. Regularly solicit requests or solicitations for investigations of rangeland management topics.

324 b. Where appropriate, initiate proof-of-concept projects or small-scale collaborative investigations
325 utilizing CDFA mandates under the FAC 7271 and 7273, or similar mandates.

- 326 c. Extend invitations for periodic public reports on their activities and current issues to the UC
327 California Natural Reserve System, the California Rangeland Trust, the California Rangeland
328 Conservation Coalition, the Central Coast Grazing Coalition, and others.
- 329 d. Extend invitations for input on RMAC priorities, synergistic efforts surrounding shared goals, and
330 periodic public reports on their activities and current issues to advised agencies, including the
331 Board, CalEPA, CNRA, and CDFA and their respective departments, as appropriate.
- 332 e. Appoint an RMAC representative to track water quality issues in the State.
- 333 f. Establish an annual schedule for representatives from the State and Regional WCBs make
334 presentations or submit reports to RMAC on their activities that may impact grazed lands in the
335 state. Coordinate with state and regional board staffs to develop an annual report template to
336 facilitate communication between State and regional Water Quality Control Boards.
- 337 g. Establish an annual schedule for staff from DWR to make presentations or submit reports to RMAC
338 on groundwater management plans under development that may impact grazed lands in the state.
- 339 h. Monitor county-by-county implementations of the Livestock Pass program and inter-county
340 coordination. Agendize topic for Sept/Nov meeting. Invite CAL FIRE, CFBF, or UCCE/UC ANR staff
341 who have knowledge of the state-wide implementation of the LPP program.

342 Table 3. 2022–2023 Annual Goals and Objectives to meet RMAC Priorities

Goals, Objectives, Leads & Partners, and Proposed Completion Dates				Relationship to RMAC Priorities		
Goal	Objective	<ul style="list-style-type: none"> Lead(s) Proposed Partner(s) 	Completion Date	I – Advise the Board & state agencies	II – Education & Workforce Development	III – Monitor & address range issues
1. Promote appropriate grazing for fuels management and multiple ecosystem services.	a. Develop standard template/form(s) with a guidance document for constructing grazing license agreements for use by state agencies.	<ul style="list-style-type: none"> SLGLLM USFS, CAL FIRE, DGS, CDFW, JDSF, UCCE/UC ANR, consultants 	11/2023	X		X
	b. Develop or approve informational publications and technical guidance for public and agency use.	<ul style="list-style-type: none"> SLGLLM CWGA, CA FSC 	Ongoing, 12/2023	X		X
	c. Coordinate with state agencies and major public landowners to facilitate an inventory of existing land management plans.	<ul style="list-style-type: none"> SLGLLM Various state agencies 	10/2023	X		X
2. Support workforce development for CRMs, and increase collaboration and joint educational opportunities for RPFs and CRMs	a. 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"> RMAC CLFA, CRM Panel 	02/2023		X	X
	b. Initiate a public demonstration project for a group of CRMs and RPFs to collaborate on a project with integrated fuels treatments requiring forest and rangeland ecology practices.	<ul style="list-style-type: none"> RMAC 	09/2023		X	X
	c. Coordinate CRM and RPF requirements and exam contents	<ul style="list-style-type: none"> RMAC OPFR, Cal-Pac 	05/2023		X	

Commented [WK12]: NOTE: goals and objectives are shortened as appropriate in this table, but spelled out fully in the preceding text that discusses these items. Completion dates have been adjusted since many/most had passed or were not feasible.

Commented [WK13R12]: RMAC Member Comment: I agree

Commented [WK14]: Bart, Rich (for legal), and Paul when he is available (gone March, April, back beginning of May).

Commented [WK15]: Stephanie, Cole, Joel, Paul

Commented [WK16]: Kristina, Stephanie, Taylor

Commented [WK17]: Bart, Marc, Susan Marshall

Commented [WK18]: Joel, Roxanne Foss and/or Matthew Shapero, Corte Madera/Lance

Goals, Objectives, Leads & Partners, and Proposed Completion Dates				Relationship to RMAC Priorities		
Goal	Objective	<ul style="list-style-type: none"> Lead(s) Proposed Partner(s) 	Completion Date	I – Advise the Board & state agencies	II – Education & Workforce Development	III – Monitor & address range issues
	where appropriate.	SRM CRM Panel				
	d. Support existing efforts to develop a statewide training program for potential CRMs.	<ul style="list-style-type: none"> RMAC OPFR, Cal-Pac 	Ongoing, 06/2023		X	
	e. Invite CAL FIRE representatives 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"> RMAC CAL FIRE 	01/2023		X	
	f. 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"> RMAC Cal-Pac SRM CRM Panel 	03/2023		X	
3. Develop educational opportunities and outreach for prescribed herbivory, fuel reduction methods integrating prescribed herbivory, and rangeland resource management in general	a. Establish appropriate guidance for grazing following wildfire on California rangelands, with an emphasis on state-managed lands.	<ul style="list-style-type: none"> RMAC UCCE/UC ANR, UCB, UCD, CPSLO 	09/2023	X		X
	b. Conduct and promote annual educational workshop series on the use of grazing for fine fuel reduction in collaboration with appropriate partners.	<ul style="list-style-type: none"> RMAC UCCE/UC ANR, NRCS, CAL FIRE 	03/2023	X	X	X
	c. Identify needs for technical and training information and establish a plan for producing educational workshops.	<ul style="list-style-type: none"> RMAC UCCE/UC ANR 	Ongoing 12/2023	X		X

Commented [WK12]: NOTE: goals and objectives are shortened as appropriate in this table, but spelled out fully in the preceding text that discusses these items. Completion dates have been adjusted since many/most had passed or were not feasible.

Commented [WK13R12]: RMAC Member Comment: I agree

Commented [WK19]: Bart, Marc, Susan Marshall

Commented [WK20]: Marc, Susan Marshall

Commented [WK21]: Kristina

Commented [WK22R21]: Anthony Stornetta

Commented [WK23]: Marc, Susan, Stephanie, Bart, Kristina

Commented [WK24]: CWGA deep dive research paper folks; Lance; Roxanne/Matthew

Commented [WK25]: Joel and Cole, Kristina

Commented [WK26]: Joel Cole, Kristina

Goals, Objectives, Leads & Partners, and Proposed Completion Dates				Relationship to RMAC Priorities		
Goal	Objective	<ul style="list-style-type: none"> Lead(s) Proposed Partner(s) 	Completion Date	I – Advise the Board & state agencies	II – Education & Workforce Development	III – Monitor & address range issues
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	a. Regularly solicit requests for investigations of rangeland management topics.	<ul style="list-style-type: none"> • RMAC • Board, advised agencies and departments 	11/2022	X		X
	b. Where appropriate, initiate proof-of-concept projects or small-scale collaborative investigations utilizing CDFA mandates	<ul style="list-style-type: none"> • RMAC • CDFA 	05/2023	X		X
	c. Extend invitations for periodic public reports on their activities and current issues to institutions relevant to California rangelands.	<ul style="list-style-type: none"> • RMAC • UC NRS, CRT, CRCC, CCRC 	Ongoing 12/2023			X
	d. Extend invitations for input on RMAC priorities, synergistic efforts surrounding shared goals, and periodic public reports on their activities and current issues to advised agencies.	<ul style="list-style-type: none"> • RMAC, • Board, CalEPA, CNRA, CDFA 	Annually in October: 10/2022 and 10/2023	X		X
	e. Appoint an RMAC representative to track water quality issues in the State.	<ul style="list-style-type: none"> • RMAC • S/RWQCB, DWR 	02/2023	X		X
	f. Establish an annual schedule for representatives from the State and Regional WQCBs to make presentations or submit reports to RMAC on activities that may impact grazed lands in the state. Coordinate with state and regional	<ul style="list-style-type: none"> • RMAC • S/RWQCB 	09/2023			X

Commented [WK12]: NOTE: goals and objectives are shortened as appropriate in this table, but spelled out fully in the preceding text that discusses these items. Completion dates have been adjusted since many/most had passed or were not feasible.

Commented [WK13R12]: RMAC Member Comment: I agree

Commented [WK27]: Case by case

Commented [WK28R27]: I could put together a list of topics needing research gleaned from the last two years; Stephanie and Paul

Commented [WK29R27]: Add this as an agenda item for next meeting

Commented [WK30]: Not sure what to do with this, since Priority 4 was dropped off (maybe we needed to add it back in?). Maybe we could focus on some of the weeds that are particular priorities for our stakeholders?

Commented [WK31]: Case by case

Commented [WK32R31]: Regularly reach out by me, ask for other members to help if needed to contact a particular person.

Commented [WK33]: Kristina for NWL, Joel and Cole for CDFA, others as we go, and as needed

Commented [WK34]: Stephanie and? Listen to recording.

Commented [WK35]: Same as above.

Goals, Objectives, Leads & Partners, and Proposed Completion Dates				Relationship to RMAC Priorities		
Goal	Objective	<ul style="list-style-type: none"> Lead(s) Proposed Partner(s) 	Completion Date	I – Advise the Board & state agencies	II – Education & Workforce Development	III – Monitor & address range issues
	board staffs to develop an annual report template to facilitate communication.					
	g. Establish an annual schedule DWR present or submit reports to RMAC on groundwater management plans under development that may impact grazed lands in the state.	<ul style="list-style-type: none"> RMAC DWR 	09/2023			
	h. Monitor county-by-county implementations of the Livestock Pass program and inter-county coordination and agendize for future meeting.	<ul style="list-style-type: none"> RMAC CAL FIRE, CFBF, UCCE/UC ANR 	11/2023			

Commented [WK12]: NOTE: goals and objectives are shortened as appropriate in this table, but spelled out fully in the preceding text that discusses these items. Completion dates have been adjusted since many/most had passed or were not feasible.

Commented [WK13R12]: RMAC Member Comment: I agree

Commented [WK36]: See above.

Commented [WK37]: Billie and Rich

Key: Board = CA State Board of Forestry and Fire Protection; CA = California; FSC = CA Fire Science Consortium; CalEPA = CA Environmental Protection Agency; CAL FIRE = Department of Forestry and Fire Protection; Cal-Pac SRM = CA Pacific Section of the Society for Range Management; CCRC = Central Coast Rangeland Coalition; CRCC = CA Rangeland Conservation Coalition; CDFW = CA Department of Fish & Wildlife; CFBF = CA Farm Bureau; CLFA = CA Licensed Foresters Association; CNRA = CA Natural Resources Agency; CDFA = CA Department of Food & Agriculture; CPSLO = CA Polytechnic State University, San Luis Obispo; CRM = Certified Rangeland Manager; CRT = CA Rangeland Trust; CWGA = CA Wool Growers Association; DWR = CA Department of Water Resources; DGS = CA Department of General Services; JDSF = Jackson Demonstration State Forest; NRCS = Natural Resources Conservation Service; OPRF = Office of the Professional Forester Registration; RPF = Registered Professional Forester; RMAC = Rangeland Management Advisory Committee; SLGLLM = State Lands Grazing License & Land Management, a subcommittee of the RMAC; S/RWQCB = State/Regional Water Quality Control Board; UC ANR = University of CA Division of Agriculture and Natural Resources; UCB = University of CA, Berkeley; UCCE = University of CA Cooperative Extension (UC ANR); UCD = University of CA, Davis; UC NRS = University of CA Natural Reserve System; USFS = United States Forest Service.

Commented [WK38]: RMAC Member Comment: UC ANR and UCCE represent the same organization. California had established its own independent agricultural extension system (UC ANR) before Lincoln signed the Morrill Act that nationalized the idea as "Cooperative Extension" for all land grant institutions. UC has since waffled inconsistently back and forth between emphasizing its connection to the national program (UCCE) and its home-grown roots (UC ANR).

Commented [WK39R38]: Suggestions for wording?

343 **V. RANGELAND RESOURCE CONCERNS AND PROGRESS**

344 Throughout the course of conducting its annual business at open public meetings, RMAC members,
 345 members of the public, and other interested stakeholders may bring issues related to rangelands to the
 346 attention of the RMAC. To address issues needing discussion or other actions, Board staff and RMAC
 347 members work to secure speakers to bring information to the public, facilitate discussions about issues and
 348 potential solutions, and bring these issues to the attention of the Board as appropriate. Topics of concern
 349 related to rangeland resources that were discussed at public RMAC meetings, and potential actions taken to
 350 address the challenges, are summarized below.

- 351 • Access to suitable grazing land is a perennial challenge for many producers in California. Dr. Pelayo
 352 Alvarez described **AB-252**, the Department of Conservation’s **Multi-benefit Land Repurposing**
 353 **Program**¹, which seeks to increase regional capacity to repurpose agricultural land to reduce
 354 reliance on groundwater while providing community health, economic wellbeing, water supply,
 355 habitat, and climate benefits. This program would support alternative land uses for degraded lands
 356 coming out of agriculture (e.g., cropland, reclaimed mines) to minimize economic, social, and
 357 environmental impacts from the transition of agricultural lands in areas of groundwater overdraft
 358 to less water intensive land uses while providing benefits to local and regional communities. Some
 359 of these lands may be appropriate to convert back to rangeland. Activities under this program could
 360 include replantation, outreach, education and training, and research and monitoring. Such a
 361 program may represent an opportunity in some cases to expand access to grazing land, while
 362 providing co-benefits such as groundwater recharge, wildlife habitat, carbon sequestration, and
 363 agricultural productivity.
- 364 • As prescribed grazing² receives increased attention and potential funding sources to support fuels
 365 management across the state, partner organizations and stakeholders have brought a variety of
 366 concerns to the attention of the RMAC. Roger Ingram, Chair of the **CWGA Wildfire and Grazing Ad**
 367 **Hoc Committee**, presented survey results of targeted grazing providers in California.³ Top
 368 challenges facing surveyed targeted graziers included:
 - 369 ○ Labor – the passage of AB 1066 (2016)⁴, which designated shepherd work weeks as comprising
 370 168 hours (24 hours per day, 7 days a week) due the on-call nature of the work, will result in an
 371 estimated 50% increase in wages.
 - 372 ○ Grazing Agreements – finding project opportunities, navigating the Request for Proposal
 373 process, developing grazing contracts, the common need for concentrated timing of treatments

¹ <https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Multibenefit-Land-Repurposing-Program.aspx>

² For the purposes of this report, the terms “prescribed grazing” and “targeted grazing” are used interchangeably, with recognition that these terms may be used in more specific manners depending on the context. We use this term here to convey the concept of grazing management in which animals are strategically timed to graze a particular area for a defined set of goals, often including fuels reduction or other vegetation management purposes, and generally outside of the operator’s home base, if there is one.

³ <https://californiawoolgrowers.org/wp-content/uploads/2022/03/2022-Targeted-Grazing-Survey-Report-CWGA-Final.pdf>

⁴ https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB1066

Commented [WK40]: THIS IS A NEW SECTION ADDED SINCE THE LAST DRAFT; PLEASE REVIEW CAREFULLY

PLEASE NOTE: this is not intended to be an exhaustive list, or to recap everything that was said at the meeting. This section is intended to:

- 1) provide a summary of the issues brought to the attention of RMAC,
- 2) describe some of the things that were done to attend to those issues, and
- 3) highlight some other current or anticipated challenges and legislative wins/losses relevant to the 2022 calendar year.

- 374 across large landscapes, contracting requirements around liability insurance, and difficulty with
375 communication among all parties constitute only some of the challenges that come with
376 developing and implementing successful grazing agreements.
- 377 ○ Animal Performance – when animals are utilized for grazing projects, meat and fiber production
378 are not the primary goal; as such, animal performance may suffer and impact a producer’s
379 profitability.
 - 380 ○ Public and Agency Perception – public and agency understanding around the impacts of grazing
381 and management processes was perceived to be low, including knowledge around the need for
382 ongoing maintenance and the logistics of livestock management, including animal welfare
383 concerns.
 - 384 ○ Scale, Infrastructure, and Operations – limited access to capital and challenges with increasing
385 operation size may reduce business viability, while difficulties with securing a reliable home
386 base for which to adequately support animals when they are not in use on projects are a
387 substantial challenge for prescribed grazing operators. Infrastructure at grazing sites is often
388 inadequate to support the grazing project, and must be provided by the producer. Coupled
389 with vandalism and theft, infrastructure is a significant cost.
 - 390 ○ Government Regulations – unwieldy or confusing procedures often make it difficult to meet
391 contract requirements or agency needs.
 - 392 ○ Predator control, theft, vandalism, scheduling and logistical challenges, communication, and
393 marketing were additional substantial concerns facing targeted grazing managers in California.
 - 394 ● Concerns regarding the consideration of rangelands in the Pathways to 30x30 Draft Strategy were
395 raised at an RMAC meeting. Jennifer Norris, Deputy Secretary for Biodiversity and Habitat at the
396 CNRA, spoke to the RMAC directly at a public meeting, and described the program **Pathways to
397 30x30: Accelerating Conservation of California’s Nature**⁵, which promotes climate smart
398 strategies, pollinators, healthy soils, and accelerated ecological restoration, and makes the
399 commitment to conserve 30% of lands and coastal waters by 2030. This strategy is a part of much
400 broader Nature Based Solutions Executive Order⁶, signed in late 2020, which promotes climate
401 smart strategies, pollinators, healthy soils, and accelerated ecological restoration, and makes the
402 commitment to conserve 30% of lands and coastal waters by 2030. The executive order also
403 directed the CNRA to coordinate with other state agencies and diverse partners to achieve
404 conservation goals. Collaborators therefore include regional stakeholders, working groups, Tribal
405 councils, and a variety of agencies including CNRA departments. Ms. Norris described the various
406 agencies involved in developing and implementing the 30x30 Strategy, and introduced attendees to
407 an online web application, CA Nature⁷, which describes lands that already meet the definition of
408 “Conservation Areas” and identifies areas that might also qualify. Attendees learned more about
409 how rangelands were being considered, and the 30x30 team was alerted to the expertise existing in
410 the membership and stakeholders of the RMAC and may consider reaching out for future efforts
411 that may benefit from their input.

⁵ <https://www.californianature.ca.gov/pages/30x30>

⁶ <https://www.gov.ca.gov/wp-content/uploads/2020/10/10.07.2020-EO-N-82-20-.pdf>

⁷ <https://www.californianature.ca.gov/pages/canature>

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- High infrastructure capital and maintenance costs are often a barrier to management improvements or development of grazing projects. While funding for the installation of permanent infrastructure is often challenging, Rangeland Specialist Kristan Norman and State Forester Chris Zimny of NRCS provided a detailed presentation on the **Environmental Quality Incentives Program**⁸ (EQIP) and Conservation Stewardship Program (CSP) with a focus for rangeland managers. The EQIP is a financial and technical assistance program funding both project planning and implementation, with funding provided through the Farm Bill⁹. While EQIP is more focused on vegetative and structural practices, the CSP focuses more on ramping up existing conservation efforts. Both programs cover soil, water, air, and animal resource concerns.
- 421
- 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**¹⁰ (CalCAN)—a coalition of sustainable and organic farming organizations—spoke about the organization’s advocacy efforts for state investments in research and assistance for farmers and ranchers in California to become more climate resilient. Mr. Shobe provided an update on three recent advocacy efforts:
 - AB 125 Food and Farm Resilience Coalition (Rivas, 2021; Equitable Economic Recovery, Healthy Food Access, Climate Resilient Farms, and Worker Protection Bond Act): \$3.3 billion bond measure; AB 125 fails, and CalCAN pivoted to smaller, one-time budget requests rather than bonds.
 - In 2022, the Food and Farm Resilience Coalition developed an \$8 million budget request for Fiscal Year (FY) 2022/23 to support prescribed grazing. Fourteen legislators signed on, and stakeholders supported the budget request.
 - SB 977 (Laird) 2021/22, Conservation Ranching Incentive Program to support grazing and habitat on private rangelands.
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- 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.
- The Food and Agriculture Code FAC mandates that the CDFA consult with the RMAC in regards to their Noxious Weeds Program. CDFA is charged with managing funds received for the Noxious Weed Management Account, and in Article 1.7. Noxious Weeds Management of the Food and Agriculture Code (FAC), § 7271(c)(2)(A), 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

⁸ <https://www.nrcs.usda.gov/programs-initiatives/eqip-environmental-quality-incentives>

⁹ Most recently, The Agriculture Improvement Act of 2018 (2018 farm bill; P.L. 115-334, H.Rept. 115-1072); <https://www.congress.gov/115/plaws/publ334/PLAW-115publ334.pdf>

¹⁰ <https://calclimateag.org/>

449 consultation with the Range Management Advisory Committee, established pursuant to Section
450 741 of the Public Resources Code, with an emphasis placed on funding of needs-based, applied, and
451 practical research.” In addition, FAC § 7273(a), states that the CDFA “... shall designate and provide
452 staff support to an oversight committee to monitor this article and shall consider input from weed
453 management areas, county agricultural commissioners, and the Range Management Advisory
454 Committee.” The Noxious Weed Program at CDFA has had a history of dormancy and re-
455 engagement and is now in a period of increased activity. In regards to incorporation of CDFA’s
456 annual priorities into RMAC’s priorities, Mr. Kelch suggested that RMAC have an internal meeting
457 with CDFA to discuss this going forward, as the CDFA and RMAC have a statutory nexus to address
458 Noxious Weeds. To further increased engagement with the CDFA, RMAC Members Kramer and
459 Bush were appointed as RMAC representatives to the **Healthy Soils Initiative** under the CDFA at the
460 November 2022 RMAC meeting.

461 • Workforce Development continues to be a significant challenge in the rangeland management
462 world, with a relatively small number of professionals with rangeland expertise or certification
463 working in the State, and less than 80 currently licensed Certified Rangeland Managers (CRM)
464 across California, of which fewer than perhaps 30 CRMs provide rangeland consulting services. The
465 CRM license is required for professional practice of rangeland management on non-federal forested
466 landscapes as a specialty authorized under the Professional Foresters Licensing Act that requires
467 the Registered Professional Forester license for the practice of forestry. Dr. Susan Marshall,
468 professor of Rangeland Resources and Soils at California Polytechnic State University, Humboldt,
469 presented information on the current state of **Certified Rangeland Managers (CRM) in California**
470 and constraints and challenges in workforce development efforts. This information was largely
471 based on a survey of CRMs, which included 65 responses out of the confirmed 78 CRMs at that
472 time, for a response rate of 83% from active CRMs. Per the survey, CRMs wanted to see progress
473 made in the areas of improved information on the Cal-Pac Society for Range Management (SRM)¹¹
474 webpage, more support from CAL FIRE, and clear continuing education requirements and
475 curriculums, along with increased opportunities for practical ranch experience and educational
476 outreach.

477 Dr. Marshall also reviewed information on a grant proposal to support the above needs, as well as
478 educational programs for comprehensive and collaborative CRM training, more clear and accessible
479 program requirements, and greater access to training and testing for individuals wanting to take
480 the CRM exam. The proposal was sent to the U. S. Department of Agriculture (USDA) and NIFA
481 (National Institute for Food and Agriculture) grant programs. The proposals were spurred on by
482 conversations with Audubon, and the establishment of their Conservation Ranching Program.
483 Various academic and government agencies, NGOs, and private landowners were involved in
484 developing, supporting, and promoting the proposal, which was a one-time \$30,000 grant to
485 support travel to scientific meetings (booths and listening sessions), and research to identify
486 strengths/weakness in California range curricula. Ultimately, that grant was awarded, and the
487 RMAC Chair and Board staff continue to monitor the status of this grant and endeavor, and the
488 RMAC will support and publicize the efforts of the related efforts to support workforce
489 development for CRMs in the state. Dr. Marshall will provide an update on the workforce

¹¹ <https://calpacrm.org/>

490 development grant efforts in early 2023 at the first RMAC meeting of the calendar year. A crosswalk
491 of CRM educational requirements and universities with range programs, a CRM study guide, and
492 technical documents and literature to support range education can be found at the Rangelands
493 Gateway website¹². A panel will be developed to create learning tools for the CRM exam. Lastly, the
494 grant will support development of a pilot place-based learning cohort in partnership with a working
495 ranch and would be utilized to assist prospective CRMs.

- 496 • Local area support for grazing efforts to support community-wide goals, including vegetation and
497 fuels management, can be built via grassroots efforts such as community-supported grazing
498 programs which position trusted community members in key roles to coordinate and support to
499 manage resources that affect the larger community. By ensuring that everyone in a community is
500 privy to the fire safety benefits of such a program, effectiveness of grazing is felt on contiguous
501 acres, rather than in scattered patches, providing greater levels of protection from wildfire—among
502 other potential benefits—on a larger scale. RMAC Member Cole Bush, owner-operator of
503 Shepherdess Land & Livestock and member of the CWGA, updated the RMAC on the **Community**
504 **Supported Grazing Summit**, a workshop by the Ojai Valley Fire Safe Council. The Ojai Valley has
505 developed a community supported grazing program with multiple stakeholders, stitching together
506 parcels throughout the community to manage vegetation with prescribed grazing in the corridor of
507 the town. In response to increased demand and need across the state, they have been working on
508 developing a transferable framework that could be used by other communities to adapt to their
509 situations for a similar kind of community-supported grazing programs. The April 8th Summit¹³
510 brought together over 30 managers, individuals from land conservancies, tribal members, and
511 grazing practitioners to continue working on development of this program and make it transferable
512 for other regions and communities, with the goal of increasing local capacity for funding and
513 implementing local and regional projects to manage vegetation for wildfire mitigation and risk
514 reduction, particularly in areas critically needing treatment. The program focuses on economic
515 development, public education, ecological restoration, community resilience, and promoting fire-
516 safe communities.
- 517 • A limited number of herders reside in California and the greater United States to manage grazing
518 animals. Of the interested few, most lack experience and require extensive training to become
519 effective animal managers. Historically most targeted grazing services have dealt with this by
520 utilizing the H2A Temporary Agricultural Employment of Foreign Workers program¹⁴. However, as
521 previously mentioned, AB 1066 removed the herder exemption. Training programs through, for
522 example, a community college, would have the potential to work if they could recruit enough
523 people to take course. Curriculum development, hands-on experiential labs, and internships with
524 existing targeted service grazing businesses would develop knowledge, skills, and experience with
525 grazing animals. Member Cole described one effort to support such training needs with the
526 launching of a new **Bilingual Grazing Manager Training**^{15, 16}. This is a pilot program series to

¹² <https://docs.rangelandsgateway.org/>

¹³ https://cecsb.org/blog/grazing-summit?utm_source=CEC+Supporters&utm_campaign=0e444b6840-Newsletter-2022-05&utm_medium=email&utm_term=0_d09a19fbeb-0e444b6840-247746328

¹⁴ dol.gov/agencies/whd/agriculture/h2a

¹⁵ https://bof.fire.ca.gov/media/uzck0mtp/6-bilingual-grazing-mgr-training-project-overview_ada.pdf

¹⁶ <https://bof.fire.ca.gov/media/svvpctze/6-capacitacio-n-de-pastores.png>

- 527 specifically to address the needs for bilingual training of practitioners for sheep and goats (but also
528 cattle), as they implement targeted grazing projects. Topics will also include ecological
529 considerations such as native plants identification and business and leadership acumen.
- 530 • The RMAC has faced challenges over the years at conducting business absent an operational
531 budget. To ameliorate this, the RMAC often partners with renowned rangeland and environmental
532 organizations with like goals and missions to co-support like efforts and increase reach across
533 organizations to improve outreach, education, and information needs of the California public and
534 other interested stakeholders. In that vein, Bre Owens, Stewardship Coordinator at the **Western
535 Landowners Alliance (WLA)**, provided background information on efforts for the WLA to apply for a
536 **Grazing Lands Coalition Initiative Grant**, with the hope that the RMAC would support that effort,
537 which if awarded, would include the potential for joint WLA-RMAC collaborations for future adult
538 education efforts in range resources and management in California. The Chair of the Board of
539 Forestry & Fire Protection voiced their support for such valuable professional partnerships. As such,
540 the RMAC voted to support the grant proposal, and hopes to leverage such resources in the future
541 for outreach and education. In a similar effort, the RMAC has partnered in the past with Stacey
542 Sargent Fredericks of the California Fire Science Consortium to leverage resources for the
543 development and implementation of an annual RMAC educational series. In the previous two years,
544 these workshops were conducted virtually to allow for social distancing in acknowledgement of the
545 Covid-19 pandemic. As partnerships at the CA FSC were in flux in the latter half of 2022 due to
546 management changes, the RMAC partnered with the Fuels and Vegetation Management Education
547 (FAVE) program at Cal Polytechnic State University, San Luis Obispo's (CPSLO) Swanton Pacific
548 Ranch. In the previous three years, the RMAC has developed a three-webinar series focused on
549 grazing management in California, often with a focus on prescribed grazing. While the educational
550 series was not conducted in calendar year 2022, a larger effort is in development in partnership
551 with the FAVE, with three webinars and four in-person field tours planned for the early months of
552 2023. The three webinars will revolve around the entire prescribed grazing contracting process,
553 including navigating the request for proposals, putting together a grazing license, and developing
554 and implementing a grazing management plan. The efforts of the SLGLLM sub-committee spurred
555 the development of this educational series, and as such, the three webinars will revolve around
556 these three main aspects of grazing agreements with a focus on public lands, but with applications
557 to all land-ownership and management types. Additionally, four field workshops across the state
558 will provide site- and context-specific information from livestock practitioner and agency
559 perspectives, and will include tours in the East Bay, Ojai Valley, Paso Robles/Salinas River, and San
560 Diego areas.
- 561 • A variety of fuel management activities are commonly used throughout California, including
562 mechanical and manual treatments, prescribed fire, and herbicide application. While livestock
563 grazing is increasingly at the forefront of vegetation management discussions, it still lags in use
564 across the state for a variety of reasons, including many of those discussed above. CAL FIRE
565 published Fuels Reduction Guidance in 2021¹⁷ which included most of these vegetation
566 management activities, except grazing. The RMAC received several inquiries from stakeholders as
567 to why CAL FIRE did not include information on prescribed grazing as a fuels management tool, and

¹⁷ <https://www.fire.ca.gov/media/4jqerfjh/fuels-reduction-guide-final-2021-interactive.pdf>

568 in response, the RMAC offered to produce an informational pamphlet addendum and a more in-
569 depth white paper addressing prescribed herbivory as a fuels management tool for use alone or in
570 combination with other tools. CAL FIRE has received the draft copy of the pamphlet addendum, and
571 is considering whether to include this information, or information about prescribed grazing in some
572 form, in future versions of their Fuels Reduction Guidance.

- 573 • Other challenges raised over the year during public RMAC meetings included issues related to the
574 Livestock Pass Program, water quality and grazing in riparian areas, prohibition of gas engines, and
575 post-fire landscape management. The RMAC will be working to secure speakers and develop
576 activities to provide additional information to stakeholders, and will investigate avenues to fill these
577 potential needs, including education and outreach, online resources, workshops, and
578 recommendations for policy changes if warranted.

579 **VI. CONCLUSION**

580 The RMAC has substantially renewed efforts in the past two years to establish or re-establish collaborations
581 with related agencies and organizations to better leverage the various resources, expertise, and efforts of
582 these institutions to collectively support improved rangeland resource conditions across the State. The bulk
583 of planning and coordination efforts occurred in 2022, with the majority of workshops and deliverables
584 shifted to 2023. Efforts have included renewed collaborations with state agencies, internal state
585 departments, and task forces, as well as local and state-wide range-related organizations; partnerships with
586 organizations to present additional workshops and educational outreach opportunities regarding prescribed
587 herbivory, fire in rangelands, and integration of fuels treatments, and includes collaborations with CAL FIRE,
588 University of California and California State universities, Swanton Pacific Ranch, U.C. Cooperative Extension,
589 among others; establishment of RMAC and Board staff representatives to liaise with advised agencies,
590 departments, and task forces; and coordination with outside organizations to support the development of
591 technical guidance, literature reviews/white papers, and pamphlets to support range resource management
592 from the level of the individual up to the state agency.

593 **VII. REFERENCES CITED**

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