

REQUEST FOR PROPOSALS
from
CATTLE OPERATORS
for
RANGELAND GRAZING LICENSE

University of California
AGRICULTURE AND NATURAL RESOURCES
Hopland Research & Extension Center
4070 University Road
Hopland, California 95482

February 15th, 2024

ANNOUNCEMENT
of
REQUEST FOR PROPOSALS
from
CATTLE OPERATORS
for
RANGELAND GRAZING LICENSE

Subject to conditions prescribed by the University of California, Agriculture and Natural Resources, Hopland Research & Extension Center (HREC), responses to HREC's request for proposals are sought for the following:

RANGELAND GRAZING LICENSE
University of California, Agriculture and Natural Resources
Hopland Research and Extension Center
Hopland, Mendocino County

DESCRIPTION OF THE HOPLAND RESEARCH & EXTENSION CENTER PROPERTY: Located in California's north coast region in Mendocino County, at the foothills of the Mayacamas mountains, the Hopland Research and Extension Center (HREC) is one of nine agricultural research and extension centers in the Golden State administered by the University of California, Agriculture and Natural Resources. It provides land, labor, facilities and management for agricultural and natural resource research on its 5,358-acre property. As stewards of oak woodland, grassland, chaparral, and riparian environments, HREC aims to maintain and enhance ecosystem integrity through applied research, adaptive management and educational activities, while also supporting working landscapes, with diverse agricultural products and recognized ecosystem services derived from these landscapes.

DESCRIPTION OF HREC'S INTENT FOR RANGELAND GRAZING LICENSE: In the wake of the 2018 Mendocino Complex Fire which burned roughly 3,000 acres of its rangeland, hardwood and chaparral pastures, HREC acknowledges the need for more extensive grazing on the HREC property. This cannot be accomplished solely by the sheep flock at HREC, and the introduction of cattle grazing to the property would present the opportunity to provide local ranchers with increased land use, a chance for their stakeholder voice to be heard by the University, and the opportunity to collaborate with researchers in many possible grazing research projects relevant to local and regional agricultural producers, land managers, and policy developers. HREC plans to implement this grazing plan in two phases. Phase One, which is planned to start in 2024, will encompass three separate pastures, 619 acres total size, in the southern part of the property and will require up to 65 Animal Unit Equivalent (AUEs) with the exact number and type of livestock flexible. There will be no calving on the property for Phase One. If the outcome of this grazing and ecosystem improvement is satisfactory, HREC plans to launch Phase Two in two to three years, which will include up to six additional pastures in the northern portion of the property. Stocking rates and exact pastures for Phase Two are as yet to be determined and will require a new grazing license or a modification to the existing grazing license, but may or may not require a new Request for Proposal. HREC seeks a Cattle Operator who will collaborate with HREC in developing and realizing expanded grazing, and possible future research projects in study areas including, but not limited to rangeland ecology, rangeland management, and various aspects of animal science. Preference will be given to Cattle Operators prioritizing rangeland restoration and biodiversity conservation, as evidenced through current practice of or interest in adopting adaptive rotational

multi-paddock grazing.

GRAZING PLAN

Objectives

1. Reduce herbaceous biomass and thatch.
2. Promote biodiversity of desirable plants with emphasis on native perennial bunchgrasses, young oak trees, and forbs.
3. Time grazing in pastures to sustain and encourage native perennial grasses and forbs.
4. Support research and education as opportunities arise.

Cattle Producer will:

1. Monitor, in collaboration with HREC staff, forage conditions and rotate cattle as range conditions dictate.
2. Assess forage production and grazing success using, in part, enclosures maintained by UC HREC and researchers.
3. Maintain consistent communication with HREC Director, providing necessary updates on operations and grazing conditions.
4. Maintain water systems and fencing infrastructure to at least a pre-lease state of repair. Inform HREC personnel of damages due to treefalls or other natural, non-cattle events.
5. Have personnel on site at least once a week to check on animal health and respond on same day to calls received from HREC personnel regarding urgent water, fencing, and livestock issues.
6. Use horses and/or ATVs to gather and work cattle, or seek approval to use dogs in certain situations.
7. Install and maintain portable working pens at mutually agreed locations.

Operations are as follows:

1. Up to 65 Animal Unit Equivalents (AUE) with the exact numbers and stock types flexible, to achieve end of season residual dry matter (RDM) goals: 700-800 lbs/acre on flatter ground, 800-1000 lbs/acre on steeper ground. RDM will be evaluated by HREC staff using both quantitative (<https://anrcatalog.ucanr.edu/pdf/8092.pdf>) and qualitative (https://ucanr.edu/sites/UCCE_LR/files/202961.pdf) methods.
2. Cattle moved onto property in early May, depending on weather, soil, and pasture conditions.
3. Two rotations through leased pastures, once during end of growing season and once during dry season, timing per range conditions.
4. Herd is gathered and worked as needed for deworming, doctoring, etc.
5. Cattle moved off property at end of October.
6. Cattle producer and HREC Director will meet in March 2025 to determine stocking rates, rotations, and grazing plans annually for the following year.

Interested Cattle Operators may obtain an electronic copy of the Request for Proposal document beginning on February 27th, 2024 at:

<http://hrec.ucanr.edu>

Cattle Operators interested in submitting a Proposal **must attend a MANDATORY conference at 9am on March 18th, 2024** at HREC, located at 4070 University Road, Hopland, California. Cattle Operators must meet at the HREC headquarters office and sign the visitor check-in log.

Proposals will be received at the HREC until April 5th, 2024.

Proposals and all other documentation related to this project will be held in confidence to the greatest extent permissible by University policy and the laws of the State of California.

For additional information on this project, contact HREC Director John Bailey at 707-744-1424 x 1649 (direct phone) or jtbailey@ucanr.edu. For additional information on the HREC, visit <http://hrec.ucanr.edu/>.

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I. BACKGROUND INFORMATION

A. Description of the Hopland Research and Extension Center

Located in California's north coast region in Mendocino County, at the foothills of the Mayacamas mountains, the Hopland Research and Extension Center (HREC) is one of nine agricultural research and extension centers in the Golden State administered by the University of California, Agriculture and Natural Resources. It provides land, labor, facilities and management for agricultural and natural resource research on its 5,358-acre property. As stewards of oak woodland, grassland, chaparral, and riparian environments, HREC aims to maintain and enhance ecosystem integrity through applied research, adaptive management and educational activities, while also supporting working landscapes, with diverse agricultural products and recognized ecosystem services derived from these landscapes.

B. Description of HREC's Intent for Rangeland Grazing License

In the wake of the 2018 Mendocino Complex Fire which burned roughly 3,000 acres of its rangeland, hardwood and chaparral pastures, HREC acknowledges the need for more extensive grazing on the HREC property. This cannot be accomplished solely by the sheep flock at HREC, and the introduction of cattle grazing to the property presents the opportunity to provide local ranchers with increased land use, a chance for their voice as a regional stakeholder to be heard by the University, and the opportunity to collaborate with researchers on many possible grazing research projects. HREC plans to implement this grazing plan in two phases. Phase One, which HREC plans to start in 2024, will encompass three separate pastures, 619 acres total size, in the southern part of the property and will require up to 65 Animal Unit Equivalent (AUEs). It should be noted these numbers and stock types are flexible. There will be no calving on the property for Phase One. If the outcome of this grazing and ecosystem improvement is satisfactory, HREC will launch Phase Two in two to three years, which will include up to six additional pastures in the northern portion of the property. Stocking rates for Phase Two are as yet to be determined and will require a new grazing license or a modification to the existing grazing license, but may or may not require a new Request for Proposals. HREC seeks a Cattle Operator who will collaborate with HREC in developing and realizing expanded grazing, and possible future research projects in study areas including, but not limited to rangeland ecology, rangeland management, and animal science. Preference will be given to Cattle Operators prioritizing rangeland restoration and biodiversity conservation, as evidenced through current practice of or interest in adopting adaptive rotational multi-paddock grazing.

C. Description of the Available Grazing Pastures at HREC

1. Phase One – Planned to Begin Spring 2024

Available grazing acreage, a total of 619 acres, is fenced into three pastures of varying sizes, composed of oak-studded grasslands with a small amount of chaparral in one pasture. HREC is seeking approximately 65 Animal Unit Equivalents (AUE) for Phase One, but is open and flexible regarding exact numbers.

Phase 1 Grazing Plan

Objectives

1. Reduce herbaceous biomass and thatch.
2. Promote biodiversity of desirable plants with emphasis on native perennial bunchgrasses, young oak trees, and forbs.
3. Time grazing in pastures to sustain and encourage native perennial grasses and forbs.
4. Support research and education as opportunities arise.

Cattle Producer will:

1. Monitor, in collaboration with HREC staff, forage conditions and rotate cattle as range conditions dictate.
2. Assess forage production and grazing success using, in part, enclosures maintained by UC HREC and researchers.
3. Maintain consistent communication with HREC Director, providing necessary updates on operations and grazing conditions.
4. Maintain water systems and fencing infrastructure to at least a pre-lease state of repair. Inform HREC personnel of damages due to treefalls or other natural, non-cattle events.
5. Have personnel on site at least once a week to check on animal health and respond on same day to calls received from HREC personnel regarding urgent water, fencing, and livestock issues.
6. Use horses and/or ATVs to gather and work cattle, or seek approval to use dogs in certain situations.
7. Install and maintain portable working pens at mutually agreed locations.

Operations are as follows:

1. Up to 65 Animal Unit Equivalents (AUE) with the exact numbers and stock types flexible, to achieve end of season residual dry matter (RDM) goals: 700-800 lbs/acre on flatter ground, 800-1000 lbs/acre on steeper ground. RDM will be evaluated by HREC staff using both quantitative (<https://anrcatalog.ucanr.edu/pdf/8092.pdf>) and qualitative (https://ucanr.edu/sites/UCCE_LR/files/202961.pdf) methods.

2. Cattle moved onto property in early May, depending on weather, soil, and pasture conditions.
3. Two rotations through leased pastures, once during end of growing season and once during dry season, timing per range conditions.
4. Herd is gathered and worked as needed for deworming, doctoring, etc.
5. Cattle moved off property at end of October.
6. Cattle producer and HREC Director will meet in March 2025 to determine stocking rates, rotations, and grazing plans annually for the following year.

Phase One Pasture Description- A total of approximately 619 acres of dry annual rangeland including:

- i. South Pasture: 129 acres of oak-studded grassland with a vernal pool and seasonal creek
 - a. Grassland: 60 acres
 - b. Sparse woodland: 48.5 acres
 - c. Dense woodland: 10.7 acres
 - d. Grassy streambed: 6.4 acres
 - e. Wetland: <1 acre
- ii. Vasser Pasture: 298 acres of oak woodland, grassland and some brushy cover and riparian areas
 - a. Sparse woodland: 130.5 acres
 - b. Grassland: 119 acres
 - c. Dense woodland: 21 acres
 - d. Grassy streambed: 12 acres
 - e. Chaparral: 6 acres
 - f. Vernal pools: 0.5 acre
 - g. Experimental plots: 0.26 acres
- iii. Watershed II pasture: 192 acres of oak studded grassland with small patches of chaparral, seasonal creek, riparian area and elevation from approximately 700 feet to 1,400 feet
 - a. Grassland: 137 acres
 - b. Grassy streambed: 32 acres
 - c. Sparse woodland: 18 acres
 - d. Chaparral: 3.3 acres
 - e. Dense woodland: <1 acre
- a. Phase One Notes
 - i. Several small research enclosures and riparian areas in each pasture will be fenced off from grazing access. These areas are mentioned in each pasture description and are roughly two acres total across all pastures combined.

- ii. Ample stock water and year-round road access is available in all pastures. Amounts and locations are detailed in attached maps of each pasture.
- iv. Each pasture has direct access to at least one area suitable for setting up portable corrals for gathering or medical treatments. These are noted on the attached maps of each pasture. HREC does not currently have, nor does it plan to provide, any infrastructure for treating cattle.
- v. Three additional pastures may be made available if emergency conditions develop such cattle must be removed quickly from the three leased pastures listed above.

2. Phase Two – Projected to Begin Early 2026

Pasture acreage will consist of four to six larger pastures which comprise a combination of oak-studded annual grassland, chaparral and hardwood forests. Final determination of included pastures will be made in 2025.

- a. Phase Two - A total of approximately 2,124 acres of rangeland including:
 - i. North Pasture (possible): 183 acres of mostly open oak studded annual grassland and seasonal creeks with riparian areas
 - a. Grassland: 93 acres
 - b. Sparse woodland: 78 acres
 - c. Dense woodland: 5 acres
 - d. Chaparral: 2 acres
 - e. Grassy streambed: 1.3 acres
 - f. Vernal pools: 0.5 acres
 - ii. Middle Pasture (possible): 378 acres of mostly open oak studded annual grassland, small pond, riparian areas and seasonal creeks
 - a. Sparse woodland: 164.6 acres
 - b. Grassland: 157.5 acres
 - c. Dense woodland: 47.4 acres
 - d. Rocky streambed: 2.4 acres
 - e. Chaparral: <1 acre
 - f. Wetland/vernal pools: <1 acre
 - g. Grassy streambed: <1 acre
 - iii. Orchard Pasture (planned): 653 acres consisting of approximately 40% chaparral and 60% oak grassland with elevation up to 3,000 feet, with one large pond and riparian area
 - a. Grassland: 217.2 acres
 - b. Sparse woodland: 167 acres
 - c. Dense woodland: 113.9 acres

- d. Chaparral: 143.2 acres
 - e. Wetland: 3.2 acres
 - f. Vernal pool: <1 acre
- iv. James III Pasture (planned): 389 acres consisting of approximately 40% oak grasslands, 45% chaparral and 15% hardwood forests, with one large vernal pond and seasonal creeks
 - a. Chaparral: 167.3 acres
 - b. Grassland: 109.3 acres
 - c. Dense woodland: 80.3 acres
 - d. Sparse woodland: 19 acres
 - e. Wetland: 4.5 acres
 - f. Open water: 1.6 acres
 - g. Vernal pools: 1 acre
 - v. James II Pasture (planned): 269 acres consisting of approximately 30% hardwood forest, 20% chaparral and 50% grassland with brush, several vernal pools, a pond and riparian areas
 - a. Dense woodland: 101.8 acres
 - b. Sparse woodland: 70.5 acres
 - c. Chaparral: 62.3 acres
 - d. Grassland: 29.7 acres
 - vi. James I Pasture (planned): 252 acres consisting of several large, open meadows, approximately 30% hardwood forest, 20% chaparral, and the rest oak studded grassland.
 - a. Chaparral: 69.8
 - b. Sparse woodland: 67.5 acres
 - c. Dense woodland: 60.6 acres
 - d. Grassland: 46.9 acres
 - e. Experimental plot: 1.4 acres

b. Phase Two Notes

Details about these pastures, including water supplies, road access, enclosures, gathering areas, and maps will be made available once these pastures are ready for license.

II. HREC'S RANGELAND GRAZING LICENSE HEALTHCARE REQUIREMENTS

A. Requirements of the Selected Cattle Operator

In accordance with the specific conditions of the Rangeland Grazing License as approved by HREC's supervising large animal veterinarian and Animal Care and Use Committee, HREC will require the following of the selected Cattle Operator.

1. No more than one week prior to delivery of the cattle to the HREC, Cattle Operator will provide evidence to HREC that all cattle have been tested by Cattle Operator for:
 - a. Bovine Viral Diarrhea (BVD) Persistently Infected (PI) status and found to be BVD-PI free. Batch testing may be acceptable if approved in advance by HREC's supervising large animal veterinarian.
2. It would be advisable that cattle are fed a weed-free hay for one to two weeks prior to leaving from HREC. HREC has infestations of barbed goat grass, medusahead, and yellow star thistle. These invasive species could be transported to new locations when cattle are moved. This is a consideration that stockers should take when moving cattle.
3. The provision and insertion of numbered ear tags will be the responsibility of the Cattle Operator as part of the testing protocols required prior to the arrival of cattle at HREC.
4. The cattle must have been administered a vaccine protocol approved by HREC 30 days prior to arrival. This must include at a minimum:
 - a. A Modified-Live Virus, or killed product, respiratory vaccine including bovine viral diarrhea (BVD), infectious bovine rhinotracheitis (IBR), bovine respiratory syncytial virus (BRSV) and parainfluenza-3 virus (PI3).
 - b. An eight-way (Clostridium chauvoei, Cl. septicum, Cl. haemolyticum, Cl. novyi type B, Cl. sordellii, Cl. perfringens types C and D bacterin-toxoid) clostridial vaccine and respiratory pathogens:
 - i. Mannheimia hemolyticum and Histophilus somni as necessary depending on cattle type and age.
 - ii. Vaccination with a five-way Leptospirosis (Canicola-Grippe-Hardjo-Ictero-Pomona strains) vaccine is necessary.
 - c. Replacement or bred heifers must have been appropriately vaccinated against Brucellosis.
5. EBA (Foothill abortion disease): It is likely that EBA exists in the tick population at HREC. The Cattle Operator may want to vaccinate against this disease, but it is not required.
6. A deworming protocol using a broad spectrum dewormer is highly recommended prior to cattle going out on pasture. HREC has internal parasites on site.
7. The Cattle Operator must have treatment protocols in place for common diseases including but not limited to pinkeye (IBK), foot rot, pneumonia, etc.

These protocols must be approved by HREC's supervising large animal veterinarian prior to stocking.

- a. A pinkeye vaccine is highly recommended, but not required.
8. Dead animals' tissue samples may be submitted to the California Animal Health & Food Safety Lab System (CAHFS), University of California, Davis, to determine the cause of death so that additional preventive measures can be put into place if necessary. This may require a field necropsy of certain deaths.
 - a. This will be required for mysterious deaths of any cattle, from adults to fetuses. Cattle Operator will pay for field necropsy by a veterinarian and HREC will cover CAHFS lab fees.
9. The selected Cattle Operator will be required to deliver the cattle to the HREC in good health (thrifty) and free of internal and external parasites. The HREC will not accept delivery of cattle exhibiting health problems such as pinkeye, foot-rot, and so on.
10. Cattle must bear a "legal" brand. As used in this context, and as described by the California Department of Food and Agriculture, "brand" means a design that is permanently impressed on the hide of an animal by burning with acid, a chemical compound, or a hot iron. Freeze brands are not an acceptable way to indicate cattle ownership.
11. The selected Cattle Operator must be the legal owner of the cattle (e.g., Cattle Operator did not lease or sub-lease the cattle).
12. The Cattle Operator's base of operations where cattle are usually kept must be within an approximately one hundred fifty (150) mile radius of HREC.
13. Preference will be given to Cattle Operators prioritizing rangeland restoration and biodiversity conservation, as evidenced through current practice of or interest in adopting adaptive rotational multi-paddock/regenerative grazing.

B. Plan in the Event of a Drought

In the event of a drought HREC reserves the right to:

1. Terminate the license agreement early, and/or
2. Require the Cattle Operator to remove all or a portion of the animals as decided by HREC no later than thirty (30) days after HREC issues a written notice to the Cattle Operator requesting removal of the cattle from HREC, and/or
3. Require the Cattle Operator to move all or a portion of the animals as decided by HREC onto one of the emergency relief pastures (Watershed 1, Niderost, or E/W Vassar) while waiting for removal from HREC within the 30-day period.

III. RESPONSIBILITIES OF THE CATTLE OPERATOR

The Cattle Operator will be responsible for the following.

- A. All animal health costs including those costs that are preventative.
- B. Timely treatment of animal health issues, including those that are preventative.
 - 1. Cattle Operator will schedule animal health activities in advance and in coordination with HREC to ensure no interference with HREC's research and extension project activities.
 - 2. If Cattle Operator neglects to address animal health issues in a timely manner, HREC reserves the right to treat such animals at the Cattle Operator's expense.
 - a. HREC does not currently have the infrastructure to support the treatment of cattle on a sustained basis. Accordingly, Cattle Operator must supply necessary equipment for on-site medical care. This would most likely be mobile infrastructure considering the size of the property.
 - b. If Cattle Operator is unable to provide timely medical care within twenty-four (24) hours of contact or at the earliest availability of the veterinarian, HREC reserves the right to call a veterinarian for assistance. Cattle Operator will be responsible for veterinarian and equipment charges incurred by HREC.
 - c. If Cattle Operator does not provide or agree to such services in a timely manner, HREC reserves the right to terminate the License.
- C. Purchase of any protein, mineral or similar supplement required by the Cattle Operator.
 - 1. Any such supplement must be approved in advance by HREC to ensure that it will not adversely impact research projects (either directly related to cattle or relevant research projects (i.e., wildlife dietary supplement trials), HREC animals, or wildlife).
 - i. Cattle Operator must inform HREC at least one week in advance of any new planned care outside of already-approved materials and treatments.
 - ii. Salt is an approved supplement. Salt can be distributed as the Cattle Operator sees fit without prior approval as long as the salt does not contain minerals not approved for use in sheep.
 - iii. The placement of any supplements containing copper requires HREC approval and awareness, as copper can be toxic to sheep. Copper supplements will need to be removed by Cattle Operator or HREC before sheep re-enter a pasture.
 - iv. Supplements or treatments must be contained, not field dispersed.

- v. HREC reserves the right to move supplement containers as needed within a pasture to assist with cattle movement such that the pasture is evenly utilized.
- D. Cattle Operators that are Beef Quality Assurance (BQA) certified are preferred.
- E. Cattle Operators must submit information regarding vaccine storage and cold chain documentation.
- F. Cattle Operators must be willing to discuss in a timely manner their possible participation in any rangeland grazing or animal science studies proposed by HREC to be conducted at the property. This does not constitute mandatory participation, but preference will be given to Cattle Operators willing to engage in rangeland and animal science studies. Any terms of the study regarding cattle numbers and potential effect on cattle health will be negotiated with the Cattle Operator, University researchers, HREC management and HREC's Animal Care and Use Committee to the satisfaction of all involved.
- G. No guardian animals will be allowed on the property because of current HREC guardian dogs with the sheep flocks. Cattle Operator may bring dogs for herding cattle onsite but they must be restrained when around sheep or HREC guardian dogs and prior permission must be granted by the HREC Director.
- H. The selected Cattle Operator must maintain all fences and water infrastructure in the condition of such infrastructure as of the commencement date of the License. Road damage beyond normal wear and tear, as solely judged by HREC, must be repaired by Cattle Operator.
- I. Cattle Operator will accept the decision of HREC to halt grazing and remove cattle within thirty (30) days if HREC finds that the projected end-of-season Residual Dry Matter (RDM) in the pastures has fallen below the acceptable threshold of 800-1,000 lbs. per acre on flatter grounds, and 700-800 lbs. per acre on steeper terrain. Reference RDM photos can be found in the "Monitoring Annual Grassland RDM Field Guide." Visit <http://www.wildlandsolutions.com/products/> to purchase this guide, or ask HREC Staff for copies of reference photos.

IV. RESPONSIBILITIES OF HREC

HREC will be responsible for the following.

- a. Informing the Cattle Operator about any research or extension activities that could impact the health or grazing of their cattle at least two weeks prior to any such activities.
- b. Purchase and provision of protein, mineral or similar supplement required by HREC.
- c. Upkeep of road systems to provide cattle and Cattle Operator access to pastures.

- d. Providing water infrastructure and fencing at the license commencement date in a condition suitable for continued cattle grazing.
- e. Repairing damage to water infrastructure and fencing created by non-cattle or non-cattle-operator causes such as treefalls, storms, or earthquakes.
- f. Informing Cattle Operator as soon as possible of any upcoming research trials in which involvement of cattle may be requested.
- g. Giving two weeks' advance notice when requiring Cattle Operator to move cattle to a different pasture, or thirty (30) days' advance notice when requiring Cattle Operator to move cattle off the property in case of drought or damage.

V. PROPOSAL SUBMITTAL PROCESS

- A. Interested Cattle Operators should complete HREC's "Proposal" form (see Exhibit A, *Proposa*l).
- B. Proposals must be received at HREC no later than April 5th, 2024.

VI. PROPOSAL REVIEW PROCESS

- A. HREC's review of all proposals will be conducted on the basis of pre-established, uniform criteria.
- B. HREC's review of all proposals will be by a team of knowledgeable individuals, anticipated to include the following.
 - 1. HREC Director
 - 2. Attending HREC's supervising large animal veterinarian
 - 3. UC Cooperative Extension Livestock and Natural Resources Advisor
- C. With respect to review of Cattle Operator proposals, HREC reserves the following rights.
 - 1. To obtain the Cattle Operator's credit rating.
 - 2. To reject proposals not submitted on HREC's preferred form.
 - 3. To reject proposals that are incomplete and/or unclear.
 - 4. To request, receive and evaluate supplemental information.
 - 5. To engage in other activities that may be beneficial to HREC's selection of the Cattle Operator that can best support the goals of HREC in biodiversity conservation and ecological improvement through grazing, scientific research, and extension activities.

VII. CATTLE OPERATOR SELECTION PROCESS

- A. After evaluating each of the proposals received, HREC will identify the apparent selected Cattle Operator that can, in HREC's sole judgment, best support the goals of HREC in grazing and ecosystem improvement and participation in rangeland and animal science research projects and extension activities.
- B. HREC will perform on-site health inspection of the cattle of the apparent selected Cattle Operator.
- C. After confirming the health of the cattle, HREC will confirm the selected Cattle Operator.
- D. HREC will tender a license agreement to the selected Cattle Operator.
- E. HREC will conduct planning/logistics meeting with Cattle Operator at HREC.
- F. HREC will accept delivery of the cattle at the HREC.
- G. Summary of HREC's anticipated dates is as follows:
 - 1. Mandatory on-site conference for interested Cattle Operators
March 18th 2024
 - 2. Proposals due to HREC
April 5th, 2024
 - 3. HREC review of proposals, identification of apparent selected Cattle Operator
April 12th, 2024
 - 4. HREC health evaluation of cattle of apparent selected Cattle Operator
April 19th, 2024
 - 5. HREC confirmation of selected Cattle Operator
April 22nd, 2024
 - 6. HREC issuance of license agreement to selected Cattle Operator for execution
April 26th, 2024
 - 7. Planning and logistics site meeting at HREC
May 3rd, 2024
 - 8. Delivery of cattle to HREC
May 10th, 2024

EXHIBIT A

PROPOSAL
from
CATTLE OPERATOR
for
RANGELAND GRAZING LICENSE

Interested Cattle Operators should complete this form, adding additional sheets as may be necessary. Completed proposals are due at the HREC no later than April 5th, 2024.

I. GENERAL INFORMATION

A. Name of Cattle Operator: _____

B. Street Address (no P.O. Boxes), City, State, Zip Code of Cattle Operator's Main Office

C. Principal Contract Person for this Proposal (name): _____

D. Cattle Operator's Contact Person's Communication Information:

Phone Number: _____ Fax Number: _____

Email Address: _____

E. Cattle Operator is a: (*check one*)

Corporation _____

Sole Proprietorship _____

Joint Venture _____

Partnership _____

II. ESSENTIAL REQUIREMENTS

Cattle Operator will meet the following essential requirements, the details of which are found in the HREC's *Request for Proposals* document.

A. Cattle Operator is legal owner of cattle. _____ Yes _____ No

B. Cattle Operator will meet anticipated grazing goals and healthcare requirements.
_____ Yes _____ No

C. Cattle will bear legal brand (no freeze brands). _____ Yes _____ No

D. Cattle will be in good health. _____ Yes _____ No

E. Cattle will have all HREC-required vaccinations. _____ Yes _____ No

F. Cattle Operator will fulfill all requirements of HREC's *Animal Handling Protocol*.

_____ Yes _____ No

G. Cattle are housed within a 150-mile radius of the HREC. _____ Yes _____ No

Street address (no P.O. boxes) and city where cattle are housed.

H. In the event of a drought or termination of the Grazing License, cattle will be removed in 30 days.
_____ Yes _____ No

I. Cattle Operator will pay for and perform all of the *Responsibilities of the Cattle Operator*, in addition to any other obligations that may accrue to the owner of the cattle.
_____ Yes _____ No

J. Cattle Operator will accept the indemnification and insurance terms and conditions shown in Exhibit C, *Sample HREC License Agreement*.
_____ Yes _____ No

III. CATTLE OPERATOR'S CATTLE GRAZING LEASE MANAGEMENT EXPERIENCE
(Provide response on separate sheets)

A. List all cattle grazing lease management experience and expertise, on both public and private properties.

B. List all classes, education, and years of on-the-job-training related to cattle grazing lease management.

C. List any experience managing land to prioritize rangeland restoration and biodiversity conservation

D. List any additional related experience or work which would demonstrate Cattle Operator's experience in management of land and of the grazing of cattle.

E. Cattle Operator dedicates approximately ___% of their professional time to cattle grazing management.

F. Is Cattle Operator currently engaged in a cattle grazing Lease? _____ Yes _____ No

G. Submit a minimum of three (3) business references. HREC reserves the right to obtain the Cattle Operator's credit rating.

1. Business Reference #1

Company Name: _____

Contact Name: _____

Phone Number: () _____

2. Business Reference #2

Company Name: _____

Contact Name: _____

Phone Number: () _____

3. Business Reference #3

Company Name: _____

Contact Name: _____

Phone Number:() _____

IV. ADDITIONAL CONSIDERATIONS

A. Cattle Operator has been in business for __ years.

B. Attach Cattle Operator's income and expense statements for the last three (3) fiscal years.

C. Further information that Cattle Operator would like to supply in support of this proposal.

V. PROPOSAL

Cattle Operator represents that it has carefully read and examined HREC's *Request for Proposal* document for this project; and hereby offers to provide cattle and meet all other conditions described in the *Request for Proposal*, for the following \$/AUM payable by Cattle Operator to HREC.

2024 Stock Type and Number Proposal:

\$/AUM Proposal for 2024 grazing season:

\$ _____ .00 (_____ dollars and no cents) per AUM

\$ _____ .00 (_____ dollars and no cents) total amount for 2024

For 2025 grazing year, I understand and agree that Stock Type and Number, \$/AUM, and specific grazing plan conditions will be decided in good faith negotiation with the HREC Director in March 2025 and that these terms will be laid out in a new Exhibit E, Grazing Conditions, and that a lump sum payment for the 2025 grazing will be due within thirty (30) days of executing that new Exhibit E.

Initial: _____

VI. DECLARATION

I, _____, hereby declare that I am the
(Printed Name)

(Title)

of _____
(Name of Firm)

submitting this Proposal; that I am duly authorized to execute this Proposal; and that all information set forth in this Proposal and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was executed at: _____,
(Name of City if within a City, otherwise Name of County),

in the State of _____, on _____.

(State)

(Date)

(Signature)

EXHIBIT B

HREC'S MANDATORY ANIMAL HANDLING PROTOCOL *for* RANGELAND GRAZING LICENSE

In accordance with HREC policies and applicable statute, HREC mandates certain animal handling protocols. Cattle Operator will be required to abide by all such applicable HREC animal handling protocols, including, but not limited to, the following.

HREC Cattle Health Procedures —2024

In accordance with the specific conditions of the Rangeland Grazing License as approved by HREC's supervising large animal veterinarian and Animal Care and Use Committee, HREC will require the following of the selected Cattle Operator.

1. No more than one week prior to delivery of the cattle to the HREC, Cattle Operator will provide evidence to HREC that all cattle have been tested by Cattle Operator for:
 - a. Bovine Viral Diarrhea (BVD) Persistently Infected (PI) status and found to be BVD-PI free. Batch testing may be acceptable if approved in advance by HREC's supervising large animal veterinarian.
2. It would be advisable that cattle are fed a weed-free hay for one to two weeks prior to leaving from HREC. HREC has infestations of barbed goat grass, medusahead, and yellow star thistle. These invasive species could be transported to new locations when cattle are moved. This is a consideration that stockers should take when moving cattle.
3. The provision and insertion of numbered ear tags will be the responsibility of the Cattle Operator as part of the testing protocols required prior to the arrival of cattle at HREC.
4. The cattle must have been administered a vaccine protocol approved by HREC 30 days prior to arrival. This must include at a minimum:
 - a. A Modified-Live Virus, or killed product, respiratory vaccine including bovine viral diarrhea (BVD), infectious bovine rhinotracheitis (IBR), bovine respiratory syncytial virus (BRSV) and parainfluenza-3 virus (PI3).
 - b. An eight-way (Clostridium chauvoei, Cl. septicum, Cl. haemolyticum, Cl. novyi type B, Cl. sordellii, Cl. perfringens types C and D bacterin-toxoid) clostridial vaccine and respiratory pathogens:
 - iii. Mannheimia hemolyticum and Histophilus somni as necessary depending on cattle type and age.

- iv. Vaccination with a five-way Leptospirosis (Canicola-Grippo-Hardjo-Ictero-Pomona strains) vaccine is necessary.
- c. Replacement or bred heifers must have been appropriately vaccinated against Brucellosis.
- 5. EBA (Foothill abortion disease): It is likely that EBA exists in the tick population at HREC. The Cattle Operator may want to vaccinate against this disease, but it is not required.
- 6. A deworming protocol using a broad spectrum dewormer is highly recommended prior to cattle going out on pasture. HREC has internal parasites on site.
- 7. The Cattle Operator must have treatment protocols in place for common diseases including but not limited to pinkeye (IBK), foot rot, pneumonia, etc. These protocols must be approved by HREC's supervising large animal veterinarian prior to stocking.
 - a. A pinkeye vaccine is highly recommended, but not required.
- 8. Dead animals' tissue samples may be submitted to the California Animal Health & Food Safety Lab System (CAHFS), University of California, Davis, to determine the cause of death so that additional preventive measures can be put into place if necessary. This may require a field necropsy of certain deaths.
 - a. This will be required for mysterious deaths of any cattle, from adults to fetuses. Cattle Operator will pay for field necropsy by a veterinarian and HREC will cover CAHFS lab fees.
- 9. The selected Cattle Operator will be required to deliver the cattle to the HREC in good health (thrifty) and free of internal and external parasites. The HREC will not accept delivery of cattle exhibiting health problems such as pinkeye, foot-rot, and so on.

The Cattle Operator will be responsible for the following.

- A. All animal health costs including those costs that are preventative.
- B. Timely treatment of animal health issues, including those that are preventative.
 - 1. Cattle Operator will schedule animal health activities in advance and in coordination with HREC to ensure no interference with HREC's research and extension project activities.
 - 2. If Cattle Operator neglects to address animal health issues in a timely manner, HREC reserves the right to treat such animals at the Cattle Operator's expense.
 - 3. HREC does not currently have the infrastructure to support the treatment of cattle on a sustained basis. Accordingly, Cattle Operator must supply necessary equipment for

on-site medical care. This would most likely be mobile infrastructure considering the size of the property.

4. If Cattle Operator is unable to provide timely medical care within twenty-four (24) hours of contact or at the earliest availability of the veterinarian, HREC reserves the right to call a veterinarian for assistance. Cattle Operator will be responsible for veterinarian and equipment charges incurred by HREC.
 5. If Cattle Operator does not provide or agree to such services in a timely manner, HREC reserves the right to terminate the License.
- C. Purchase of any protein, mineral or similar supplement required by the Cattle Operator.
1. Any such supplement must be approved in advance by HREC to ensure that it will not adversely impact research projects (either directly related to cattle or relevant research projects (i.e., wildlife dietary supplement trials), HREC animals, or wildlife.
 - vi. Cattle Operator must inform HREC at least one week in advance of any new planned care outside of already-approved materials and treatments.
 - vii. Salt is an approved supplement. Salt can be distributed as the Cattle Operator sees fit without prior approval as long as the salt does not contain minerals not approved for use in sheep.
 - viii. The placement of any supplements containing copper requires HREC approval and awareness, as copper can be toxic to sheep. Copper supplements will need to be removed by Cattle Operator or HREC before sheep re-enter a pasture.
 - ix. Supplements or treatments must be contained, not field dispersed.
 - x. HREC reserves the right to move supplement containers as needed within a pasture to assist with cattle movement such that the pasture is evenly utilized.
- D. Cattle Operators that are Beef Quality Assurance (BQA) certified are preferred.
- E. Cattle Operators must submit information regarding vaccine storage and cold chain documentation.

EXHIBIT C

SAMPLE UNIVERSITY LICENSE AGREEMENT
for
RANGELAND GRAZING LICENSE

HREC will require the selected Cattle Operator to enter into a HREC-issued license agreement. A sample license agreement is provided below for the general information of interested Cattle Operators. Actual license agreement will differ from the below, and will include revised and/or added terms and conditions applicable to the license for this specific Rangeland Grazing License.

**CATTLE GRAZING LICENSE AGREEMENT
THE REGENTS AS LICENSOR**

THIS AGREEMENT ("Agreement") is dated as of the latest date of execution set forth below ("Effective Date"), by and between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a California corporation, on behalf of its UC Agriculture and Natural Resources and its Hopland Research and Extension Center (collectively, "Licensor") and _____, a _____ ("Licensee").

WHEREAS, Licensor owns certain real property located at 4070 University Road, in the census-designated place of Hopland, Mendocino County, California, postal code 95449, commonly known as the University of California Hopland Research and Extension Center, which is partially comprised of three rangeland pastures equaling six hundred nineteen (619) acres in size (the "Premises"), as more particularly described in the Section I.C.2 of the Request for Proposals and mapped in Exhibit D, which is incorporated by reference, and

WHEREAS, Licensor desires to reduce biomass of herbaceous forage species and thatch, promote diversity of native plants through timed rotational grazing, and develop the ability to conduct research and extension projects on the Premises to examine, for example, the effect of certain grazing treatments on soil, plant, water, natural ecosystems, and agricultural production ecosystems, and

WHEREAS, Licensor has selected Licensee to provide cattle to the Premises and perform various other services as further described in this agreement, in support of Licensor's performance of both ecological land management activities and future potential research and extension activities, and

WHEREAS, pursuant to Licensor's selection of Licensee described above, Licensee seeks to acquire the right to enter upon the Premises for the purpose specified in Paragraph 1 below.

NOW, THEREFORE, intending to be legally bound, the parties agree as follows:

1. Use. Licensors hereby grants to Licensee, its agents and contractors, a non-exclusive License to enter upon and use the Premises and the right of ingress and egress to and from the Premises, subject to the terms and conditions herein, for the purpose of grazing cattle on the Premises, as more particularly described in the attached Exhibit B, *HRECs Mandatory Animal Handling Protocol*, and Sample Exhibit “E”, *Cattle Grazing Conditions*, which is incorporated by reference, and elsewhere in this Agreement (“License”). A revised version of Exhibit “E”, *Cattle Grazing Conditions* will be agreed upon by both parties to this Agreement prior to each new delivery of cattle to the Premises by Licensee under this Agreement, and those subsequent versions of Exhibit “E” shall be incorporated into this Agreement upon execution by both parties.

2. Term. This License shall commence on the latest date of execution set forth below, and shall continue until November 30th, 2025 (“Term”). Notwithstanding the forgoing, Licensors may terminate this License at any time for any reason, including but not limited to weather conditions, by giving sixty (60) days’ written notice to Licensee, except as provided by Paragraph 11 of the Agreement, in which case termination shall be effective immediately. At the expiration or earlier termination of this License, Licensee shall immediately cease use of the Premises and shall have removed all livestock, equipment, and fixtures from the Premises by the date of such expiration or termination.

3. Consideration. As consideration for this License for the 2024 delivery of livestock by Licensee, Licensee shall pay to Licensors the amount of \$_____ per AUM for _____AUM, a total lump sum payment of \$_____. Licensee shall make such payment within thirty (30) days of the Effective Date of the Agreement, at the address listed in Paragraph 13 (“License Fee”). The License Fee shall be made payable to the Regents of the University of California. As total consideration for this License for the 2025 delivery of livestock by Licensee, Licensee shall pay to the Licensors the amount agreed to when the Licensee and Licensors meet in March, 2025 to establish the Exhibit E, *Grazing Conditions*, which will govern the 2025 grazing season. Licensee shall make such payment within thirty (30) days of the Effective Date of the revised 2025 Exhibit E, at the address listed in Paragraph 13 (“License Fee”). The License Fee shall be made payable to the Regents of the University of California.

4. Responsibilities of Licensee. Licensee shall be responsible for certain tasks and costs associated with the grazing of cattle on the Premises, as follows:

- a. Licensee must meet all of the additional conditions described in the attached Exhibit “B”, *HREC’s Mandatory Animal Handling Protocol*, which is incorporated by reference.
- b. Licensee must maintain all fences and water infrastructure in the condition of such infrastructure as of the commencement date of the License. Road damage beyond normal wear and tear, as solely judged by Licensors, must be repaired by Licensee.

- c. Licensee shall accept any decision by Licensor to halt grazing and remove cattle within thirty (30) days if Licensor finds that the projected end-of-season Residual Dry Matter (RDM) in the pastures has fallen below the acceptable threshold of 800-1000 lbs. per acre on flatter grounds, and 700-800 lbs. per acre on steeper terrain. Reference RDM photos can be found in the “Monitoring Annual Grassland RDM Field Guide.” Visit <http://www.wildlandsolutions.com/products/> to purchase this guide or ask Licensor staff for copies of reference photos.
- d. Licensee must meet all of the additional conditions described in the attached Exhibit “E”, *Grazing Conditions*, which is incorporated by reference.

5. Responsibilities of Licensor. Licensor shall be responsible for certain tasks and costs associated with the grazing of cattle on the Premises, as follows:

- a. Informing Licensee about any research or extension activities that could impact the health of their cattle at least two weeks prior to any such activities.
- b. Purchasing and providing protein, mineral or similar supplements required by Licensor.
- c. Upkeep of road systems to provide cattle and Cattle Operator access to pastures.
- d. Providing water infrastructure and fencing upon the commencement of the License in a condition suitable for continued cattle grazing and repairing any damage not caused by cattle or cattle operator (treefalls, storms, earthquakes)
- e. Informing Licensee as soon as possible of any upcoming research trials in which involvement of cattle may be requested.
- f. Giving two weeks’ advance notice prior to requiring Licensee to move cattle to a different pasture, or thirty (30) days’ advance notice when requiring Licensee to move cattle off the property in case of drought or damage.

6. Conditions Applicable to License. This License is subject to all existing covenants, conditions, reservations, contracts, leases, licenses, easements, encumbrances, restrictions and rights of way with respect to the Premises, whether or not of record.

7. No Transfer or Assignment. This License is personal to Licensee. Any attempt to transfer or assign this License shall terminate it.

8. Permits and Regulations. Licensee shall be responsible for securing any required approvals, permits and authorizations from any federal, state or local agencies and shall comply with all applicable laws and regulations.

9. No Interference. Licensee shall not interfere with the normal operation and activities of Licensor, and Licensee shall conduct its activities on the Premises to minimize damage to the Premises and inconvenience to Licensor, its agents, employees and invitees.

10. Repair and Restoration. If Licensee, its agents or contractors cause any damage to the Premises, or to Licensor's roads, infrastructure or other property and improvements (collectively "Property") in connection with the exercise of this License, Licensee shall repair and restore the Premises and Property to their original condition prior to Licensee's use of the Premises pursuant to this License. Licensee shall perform the repair and restoration required hereunder promptly upon notice by Licensor of such damage by Licensee, but in no event any later than the date of expiration of this License, or within thirty (30) days of the earlier termination of Licensee's rights hereunder. In the event that repair and restoration is performed following the termination this License, the Licensee's Indemnity and Insurance obligations in Paragraphs 14 and 16 shall continue until repair and restoration is completed as provided herein.

11. Breach and Cure. In the event that Licensee breaches any of its obligations under this License, Licensor shall send Licensee written notice specifying the nature of such breach. Licensee shall have ten (10) days from the receipt of such notice within which to cure such breach. If more time is reasonably required for Licensee's performance, then Licensee shall notify Licensor in writing of its proposed schedule for performance and commence performance within such ten (10) day period; thereafter, Licensee shall diligently proceed to completion. If Licensee fails to cure or to commence cure within such ten (10) day period, then Licensor shall have the right to terminate this License by serving Licensee with written notice of termination, which shall be effective immediately upon delivery by Licensor to Licensee. Licensor shall have all rights and remedies available under California law including, but not limited to, actions for damages and specific performance, for any breach of Licensee's obligations hereunder.

12. Alteration in Writing. This License supersedes any and all prior understandings and agreements, whether written or oral, between the parties with respect to the subject matter of this License. No alteration or variation of this License shall be valid unless made in writing and signed by Licensor and Licensee.

13. Notice. Any notice required hereunder shall be in writing and shall be addressed as follows:

Licensor:

Hopland Research & Extension Center
ATTN: John Bailey, Director
4070 University Road
Hopland, CA 95449

Phone: (707) 744-1424
Fax: (707) 744-1040
Email: jtbailey@ucanr.edu

Licensee:

Phone: _____

Fax: _____

Email: _____

or to such other address as either party may indicate in a written notice to the other. All notices and communications given under this Agreement shall be deemed to have been duly given and received: (i) upon personal delivery, or (ii) as of the third business day after mailing by United States mail, addressed as set forth above, (iii) the immediately succeeding business day after deposit (for next day delivery) with Federal Express or other similar overnight courier system, or (iv) 24 hours after facsimile transmittal with confirmation of receipt.

14. Indemnification. Licensee shall indemnify, defend, and hold harmless Licensor, its officers, agents and employees, from and against any claims, damages, costs, expenses, or liabilities (collectively "Claims") arising out of or in any way connected with this License including, without limitation, Claims for loss or damage to any property, or for death or injury to any person or persons but only in proportion to and to the extent that such Claims arise from the negligent or intentional acts or omissions of Licensee, its officers, agents, partners, invitees or employees.

15. Waiver. Licensee hereby releases, waives, discharges, and covenants not to sue Licensor, its officers, employees and agents from liability from any and all claims including the negligence of Licensor, its officers, employees and agents, resulting in personal injury, accidents or illnesses (including death), and property loss arising from, but not limited to, Licensee's performance of this Agreement.

16. Insurance.

16.1 Licensee's Insurance. Licensee, at its sole cost and expense, shall insure its activities in connection with this License and obtain, keep in force, and maintain insurance as follows:

1. Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

a. Each Occurrence	\$1,000,000
b. Products/Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. General Aggregate	\$2,000,000

If the above insurance is written on a claims-made form, it shall continue for three (3) years following termination of this License. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date of this License.

2. Business Automobile Liability Insurance for owned, scheduled, non-owned, or hired automobiles with a combined single of not less than one million dollars (\$1,000,000) per occurrence.
3. Property Insurance, Fire and Extended Coverage Form in an amount sufficient to reimburse Licensee for all of its property, equipment, trade fixtures, inventory, fixtures and other personal property located on or in the Premises including leasehold improvements hereinafter constructed or installed.
4. Workers' Compensation as required by California law.
5. Such other insurance in such amounts which from time to time may be reasonably required by the mutual consent of Licensor and Licensee against other insurable risks relating to performance.

The coverages required herein shall not limit the liability of Licensee.

The coverages referred to under 1. and 2. of this Paragraph 16.1 shall include Licensor as an additional insured. Such a provision shall apply only in proportion to and to the extent of the negligent acts or omissions of Licensee, its officers, agents, and employees. Licensee, upon the execution of this License, shall furnish Licensor with certificates of insurance evidencing compliance with all requirements. Certificates shall provide for thirty (30) days (ten [10] days for non-payment of premium) advance written notice to Licensor of any material modification, change or cancellation of the above insurance coverages.

16.2 Waiver of Subrogation. Licensee hereby waives any right of recovery against Licensor due to loss of or damage to the property of Licensee when such loss of or damage to property arises out of an act of God or any of the property perils included in the classification of fire or extended perils ("all risk" as such term is used in the insurance industry) whether or not such perils have been insured, self-insured, or non-insured.

17. Lien Free Condition. Licensee shall not cause or permit any liens to be placed against the Premises or against Licensor's other property as a result of Licensee's exercise of rights under this License. In the event of the filing of any such liens, Licensee shall promptly cause such liens to be removed. In no event shall such lien removal require more than thirty (30) days. Licensee's failure to cause such liens to be removed within thirty (30) days shall be a breach of its obligations under this Agreement as provided by Paragraph 11.

18. Electronic Signatures. This License may be executed by electronic signature(s) and transmitted either by facsimile or in a portable document format ("pdf") version by email and such electronic signature(s) shall be deemed as original for purposes of this License and shall have the same force and effect as a manually executed original.

19. Execution in Counterparts. This License may be executed in two or more counterpart copies, each of which shall be deemed as an original and all of which, when taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this License Agreement as of the latest date of execution set forth below.

LICENSOR:
THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

LICENSEE:

By: _____

By: _____

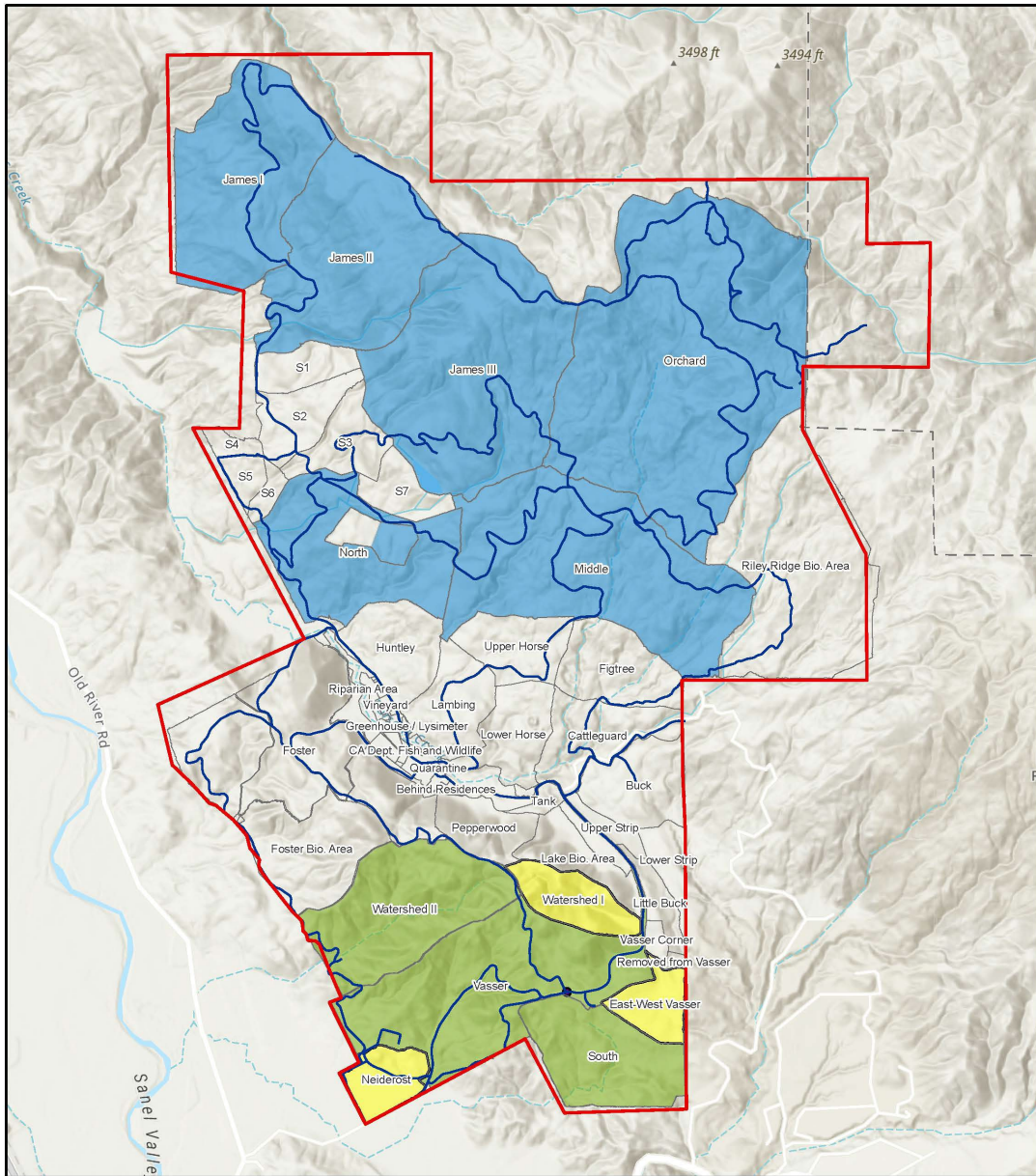
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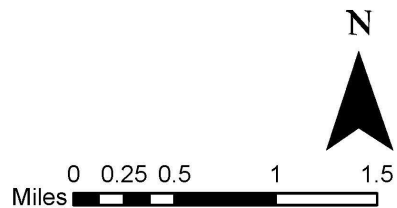
Date: _____

EXHIBIT "D" MAP OF THE PREMISES



Cattle Grazing Phases
Hopland Research & Extension Center

- Phase 1
- Phase 1 Emergency Relief
- Phase 2



**EXHIBIT “E”
CATTLE GRAZING CONDITIONS**

Licensee’s delivery and grazing of cattle to and on the Premises shall comply with all conditions described below. Licensee’s failure to comply with such conditions shall constitute a default of its obligations under this Agreement and may be grounds for Licensor’s termination of the Agreement as provided by Paragraph 11 of the Agreement. An “x” indicates that the item will be provided and the number of items to be provided is indicated where applicable.

Description of the Phase One Grazing Pastures at HREC.

A total of 619 acres, is fenced into three pastures of varying sizes, composed of oak-studded grasslands with a small amount of chaparral in one pasture, including:

- 1) South Pasture: 129 acres of oak-studded grassland with a vernal pool and seasonal creek
 - a) Grassland: 60 acres
 - b) Sparse woodland: 48.5 acres
 - c) Dense woodland: 10.7 acres
 - d) Grassy streambed: 6.4 acres
 - e) Wetland: <1 acre

- 2) Vasser Pasture: 298 acres of oak woodland, grassland and some brushy cover and riparian areas
 - a) Sparse woodland: 130.5 acres
 - b) Grassland: 119 acres
 - c) Dense woodland: 21 acres
 - d) Grassy streambed: 12 acres
 - e) Chaparral: 6 acres
 - f) Vernal pools: 0.5 acre
 - g) Experimental plots: 0.26 acres

- 3) Watershed II pasture: 192 acres of oak studded grassland with small patches of chaparral, seasonal creek, riparian area and elevation from approximately 700 feet to 1,400 feet
 - a) Grassland: 137 acres
 - b) Grassy streambed: 32 acres
 - c) Sparse woodland: 18 acres
 - d) Chaparral: 3.3 acres
 - e) Dense woodland: <1 acre

Phase One Notes

- A. Several small research enclosures and riparian areas in each pasture will be fenced off from grazing access. These areas are mentioned in each pasture description and are roughly two acres total across all pastures combined.

- B. Ample stock water and year-round road access is available in all pastures. Amounts and locations are detailed in attached maps of each pasture.

- C. Each pasture has direct access to at least one area suitable for setting up portable corrals for gathering or medical treatments. These are noted on the attached maps of each pasture. HREC does not currently have, nor does it plan to provide, any infrastructure for treating cattle.
- D. Three additional pastures may be made available if emergency conditions develop such cattle must be removed quickly from the three leased pastures listed above.

Phase One Grazing Plan

Objectives

- A. Reduce herbaceous biomass and thatch.
- B. Promote biodiversity of desirable plants with emphasis on native perennial bunchgrasses, young oak trees, and forbs.
- C. Time grazing in pastures to sustain and encourage native perennial grasses and forbs.
- D. Support research and education as opportunities arise.

Cattle Producer will:

- A. Monitor, in collaboration with HREC staff, forage conditions and rotate cattle as range conditions dictate.
- B. Assess forage production and grazing success using, in part, enclosures maintained by UC HREC and researchers.
- C. Maintain consistent communication with HREC Director, providing necessary updates on operations and grazing conditions.
- D. Maintain water systems and fencing infrastructure to at least a pre-lease state of repair. Inform HREC personnel of damages due to treefalls or other natural, non-cattle events.
- E. Have personnel on site at least once a week to check on animal health and respond on same day to calls received from HREC personnel regarding urgent water, fencing, and livestock issues.
- F. Use horses and/or ATVs to gather and work cattle, or seek approval to use dogs in certain situations.
- G. Install and maintain portable working pens at mutually agreed locations.

Operations are as follows:

- A. XX Animal Unit Equivalents (AUE) per the Agreement, to achieve end of season residual dry matter (RDM) goals: 700-800 lbs/acre on flatter ground, 800-1000 lbs/acre on steeper ground. RDM will be evaluated by HREC staff using both quantitative (<https://anrcatalog.ucanr.edu/pdf/8092.pdf>) and qualitative (https://ucanr.edu/sites/UCCE_LR/files/202961.pdf) methods.
- B. Cattle moved onto property in early May, depending on weather, soil, and pasture conditions.
- C. Two rotations through leased pastures, once during end of growing season and once during dry season, timing per range conditions.
- D. Herd is gathered and worked as needed for deworming, doctoring, etc.
- E. Cattle moved off property at end of October.
- F. Cattle producer and HREC Director will meet in March 2025 to determine stocking rates, rotations, and grazing plans annually for the following year.

Plan in the Event of a Drought

In the event of a drought HREC reserves the right to:

1. Terminate the license agreement early, and/or
2. Require the Cattle Operator to remove all or a portion of the animals as decided by HREC no later than thirty (30) days after HREC issues a written notice to the Cattle Operator requesting removal of the cattle from HREC, and/or
3. Require the Cattle Operator to move all or a portion of the animals as decided by HREC onto one of the emergency relief pastures (Watershed 1, Niderost, or E/W Vassar) while waiting for removal from HREC within the 30-day period.

Responsibilities of the Cattle Operator

1. Cattle Operators must be willing to discuss in a timely manner their possible participation in any rangeland grazing or animal science studies proposed by HREC to be conducted at the property. This does not constitute mandatory participation, but preference will be given to Cattle Operators willing to engage in rangeland and animal science studies. Any terms of the study regarding cattle numbers and potential effect on cattle health will be negotiated with the Cattle Operator, University researchers, HREC management and HREC's Animal Care and Use Committee to the satisfaction of all involved.
2. No guardian animals will be allowed on the property because of current HREC guardian dogs with the sheep flocks. Cattle Operator may bring dogs for herding cattle onsite but they must be restrained when around sheep or HREC guardian dogs and prior permission must be granted by the HREC Director.
3. The selected Cattle Operator must maintain all fences and water infrastructure in the condition of such infrastructure as of the commencement date of the License. Road damage beyond normal wear and tear, as solely judged by HREC, must be repaired by Cattle Operator.
4. Cattle Operator will accept the decision of HREC to halt grazing and remove cattle within thirty (30) days if HREC finds that the projected end-of-season Residual Dry Matter (RDM) in the pastures has fallen below the acceptable threshold of 800-1,000 lbs. per acre on flatter grounds, and 700-800 lbs. per acre on steeper terrain. Reference RDM photos can be found in the "Monitoring Annual Grassland RDM Field Guide." Visit <http://www.wildlandsolutions.com/products/> to purchase this guide, or ask HREC Staff for copies of reference photos.
5. Licensee shall provide cattle for grazing purposes for the six-month periods of May through October 2024.

6. As the 2024 consideration for this License, Licensee shall pay to Licensor xx dollars (\$xx) per AUM, as further described in Paragraph 3 of the Agreement for xx AUM, a total lump sum of xx dollars (\$xx)
7. Licensee shall deliver (xx) cattle of (xx) type for grazing purposes.
8. Licensee's cattle must bear legal brands. As used in this context, and as described by the California Department of Food & Agriculture, a "brand" is a design that is permanently impressed on the hide of an animal by burning with acid, a chemical compound, or a hot iron. Freeze brands are not an acceptable way for Licensee to indicate cattle ownership.
9. The provision and insertion of numbered ear tags will be the responsibility of Licensee as part of the testing protocols required prior to the arrival of cattle at the Premises.
10. Licensee shall deliver all cattle to the Premises in good health (thrifty) and free of internal and external parasites. Licensor will not accept delivery of cattle exhibiting health problems such as pinkeye, footrot, and so on. Licensor shall conduct a health inspection of Licensee's cattle promptly upon delivery. **Licensee's failure to deliver cattle in good health, in Licensor's sole judgment, shall be a breach of its obligations under this Agreement as provided by Paragraph 11, except that such breach shall be grounds for the immediate termination of this Agreement by Licensor.**

Responsibilities of HREC

1. Informing the Cattle Operator about any research or extension activities that could impact the health or grazing of their cattle at least two weeks prior to any such activities.
2. Purchase and provision of protein, mineral or similar supplement required by HREC.
3. Upkeep of road systems to provide cattle and Cattle Operator access to pastures.
4. Providing water infrastructure and fencing at the license commencement date in a condition suitable for continued cattle grazing.
5. Repairing damage to water infrastructure and fencing created by non-cattle or non-cattle-operator causes such as treefalls, storms, or earthquakes.
6. Informing Cattle Operator as soon as possible of any upcoming research trials in which involvement of cattle may be requested.
7. Giving two weeks' advance notice when requiring Cattle Operator to move cattle to a different pasture, or thirty (30) days' advance notice when requiring Cattle Operator to move cattle off the property in case of drought or damage.