

# Sierra Foothill Research and Extension Center STRATEGIC PLAN



University of California

Agriculture and Natural Resources

Research and Extension Center System

## Executive Summary

For over half a century the Sierra Foothill Research and Extension Center (SFREC), one of the nine research and extension centers at the University of California's Division of Agriculture and Natural Resources (UC ANR), has provided critical research and outreach support for UC academics and their cooperators including projects on beef cattle production and health, water quality, grazing management and bio-diversity conservation. As the agricultural and natural resource challenges facing California continue to mount and become more complex, demand for research and outreach support at SFREC has progressively increased. In 2012, SFREC initiated a stakeholder-driven strategic planning process to address these emerging challenges and opportunities. This initial effort identified four strategic directions as well as associated goals, key actions and deliverables that form the foundation for a long-term framework to set direction and focus effort over the next 20 years. The four strategic directions include:

- Enhance SFREC-based Research Support and Research Integration*
- Expand Extension and Education Efforts at SFREC*
- Improve Management of Agricultural and Natural Resources*
- Review and Enhance Staffing Plans and Administrative Processes*

Core findings by stakeholder groups include the opportunity for SFREC to play a broader role in research support and integration, particularly with regard to developing and maintaining long-term data bases as well as supporting a more diverse array of research and outreach projects and ensuring that allocation processes for project support are transparent and consistent. Stakeholder groups also recognized multiple opportunities to develop outreach programs with local education partners and for SFREC to develop targeted extension programming for clientele across the state. As research and outreach demands continue to evolve, stakeholder groups also recognized the opportunity to build in flexible beef cattle stocking mechanisms to more efficiently adjust to annual changes in research demand and forage production as well as opportunities to supply research animals more efficiently. Lastly, stakeholder groups identified opportunities to refine long-term staffing plans to more closely complement emerging management, research and outreach support needs at SFREC. The SFREC strategic planning committee has identified key deliverables that allow the strategic directions and goals to be tied to an implementation and assessment plan. Goals, key actions and deliverables will be used by REC administrators and the SFREC Director to jointly set outcome targets and annually review progress toward agreed-upon priorities.

**February 2014**

## Introduction

The Sierra Foothill Research and Extension Center (SFREC) is one of the UC Division of Agriculture and Natural Resources' nine research and extension centers. The REC system is a strong, vibrant organization of research and education academics supported by extraordinary research management capacity to conduct agriculture, natural resource and human resource programs that enable the delivery of the highest quality science to promote healthy citizens and thriving communities. The centers, located throughout California's various crop production areas and climatic zones, offer University researchers places to conduct field experiments and outreach programs.

SFREC is located in the sierra foothills east of the northern Sacramento Valley on 5,721 acres of annual rangeland, irrigated pasture, oak woodlands and riparian corridors along the Yuba River. For over half a century, SFREC has provided critical research and outreach support for UC academics and their cooperators including projects on beef cattle production and health, water quality, grazing management and biodiversity conservation. As the agricultural and natural resource challenges facing California continue to mount and become more complex, demand for research and extension support at SFREC has progressively increased. SFREC has a solid foundation to meet these increasing demands, including a skilled research support staff, animal handling facilities, fabrication shops and an array of equipment needed for intensive, large-scale field research, as well as meeting rooms, dormitory, nature trails and an education pavilion on the Yuba River to support a variety of outreach efforts.

While SFREC has a strong foundation for meeting the increasing demands for research and outreach support, SFREC also faces some serious challenges in preparing to address ongoing and future research and outreach needs. These include, among others, increasing the number and types of projects that can be supported given a fixed land and labor base, providing project support in a sustainable manner in an environment where project demands and environmental conditions can change drastically on an annual basis, and maintaining a large but aging research and outreach infrastructure. Addressing these challenges and opportunities in an inclusive manner is critical for positioning SFREC for the future and ensuring that SFREC can effectively deliver and coordinate critical research and outreach that California and California rangeland urgently require.

# Strategic Planning Process

## *REC system overarching goals*

In 2012 UC ANR launched a coordinated, future-oriented strategic planning effort for all nine RECs. The strategic planning charge is to develop a long-term and big picture strategic plan centered on stakeholder input. The strategic plan is designed to serve as a “living document,” a flexible framework to set direction and focus effort over the next 20 years. The strategic planning effort is intended to be inclusive, future-oriented and with a focus on implementation and assessment of plan deliverables through time. SFREC is the first center to engage in this process.

The REC system strategic planning effort was structured to include the following guiding goals:

- Develop an effective and organized approach for research and the outreach component at the centers and among the centers
- Increase collaboration across the ANR network including collaborations with surrounding Cooperative Extension programs
- Engage the local community in planning and implementation (local community is not necessarily place-based but also subject area-based)
- Engage not previously affiliated partners (e.g., non-ANR UC campuses, CSUs, relevant agencies, organizations)
- Align REC strategic plan with the ANR Strategic Vision 2025
- Develop an effective communication and outreach program to increase visibility and programmatic impact of the REC
- Ensure REC resources are effectively and efficiently utilized, and explore new and diverse opportunities
- Reconstruct the REC system identity by enhancing programming and facility resources

### ***Planning process formulated by SFREC Committee***

In September 2012, a ten-member strategic planning committee was formed (see table on next page) with members broadly representing major SFREC stakeholder groups. These core committee members served as assessment and feedback links with the diverse stakeholder group vested in the long-term future of SFREC. In January 2013 the SFREC Strategic Planning Committee kicked off its year-long strategic planning process that included assessment, strategy formulation and implementation accountability. The committee had five one-day, in-person meetings. The first meeting provided an overview of the UC Research and Extension Center's mission and long-term goals that defined the planning process, as well as a current operational overview of SFREC and an outline of what the Director, Superintendent, and other staff viewed as operational challenges and opportunities. From this meeting, committee members were asked to conduct a situational analysis with their stakeholder groups to identify current strengths and weakness of SFREC, as well as outline potential future opportunities and threats that could influence how SFREC operates in the future. The second meeting focused on understanding and exploring stakeholder input and synthesizing this input into four strategic directions. The next two meetings focused on honing the scope of the strategic directions and developing goals and key actions associated with each strategic direction. Prior to the last meeting, committee members were asked to consult with their stakeholder groups and get feedback on the proposed strategic directions, goals and key actions. This feedback was explored during the last meeting in June 2013 and used to refine the content of a draft strategic plan. The draft plan was then circulated for comment November 2013 and a final plan was approved in 2014.

### ***Implementation and assessing strategic plan outcomes***

The SFREC strategic planning committee and the REC system administrators recognized early on that the planning process must be intimately linked to a streamlined and executable implementation and assessment plan. Toward this end, committee members were asked to help identify deliverables associated with each key action as well as the persons/organizations with implementation authority. This broad matrix that links strategic directions, goals, and actions with implementation authority and deliverables will be used as the framework for identifying implementation priorities and assessing implementation progress through time. The SFREC Director, in conjunction with the REC system administrators, will develop annual priorities for plan implementation. Deliverables associated with goals and key actions will be used by REC administrators and the SFREC Director to jointly set outcome targets and annually review progress toward agreed-upon priorities.

<b>Committee Member</b>	<b>Committee Member Stakeholder Affiliation</b>	<b>Additional Stakeholders Contacted</b>
<b>Jeremy James</b> , Chair	Director, SFREC	Previous SFREC Directors
<b>Dustin Flavell</b>	Superintendent, SFREC	
<b>Theresa Becchetti</b>	UC Cooperative Extension Advisor	Other UCCE Livestock & Natural Resources Advisors, and Natural Resources Advisors
<b>Glenn Nader</b>	UC Cooperative Extension Advisor	CALFIRE, Rangeland Coalition, California Natural Resources Conservation Service (NRCS)
<b>Katie Suding</b>	UC Agriculture Experiment Station Faculty and Professor, Department of Environmental Science, Policy, & Management (ESPM)	UC Berkeley College of Natural Resources CE Specialists and AES faculty, including rangeland group and former Integrated Hardwood Range Management Program members
<b>Cassandra Tucker</b>	UC Agriculture Experiment Station Faculty and Professor, Department of Animal Science	UC Davis, Dept. of Animal Science CE Specialists & AES faculty
<b>Toby O'Geen</b>	UC Cooperative Extension Specialist, Department of Land, Air and Water Resources (LAWR)	UC Davis Dept. of Land, Air and Water Resources and Dept. of Plant Sciences CE Specialists & AES faculty
<b>Bruce Hoar</b>	Research Scientist, Western Institute for Food Safety	Vet School Cooperative Extension (CE) Specialists and Ag Experiment Station (AES) faculty
<b>Terry Jochim</b>	Producer, Dusty Trail Ranch	Other livestock producers
<b>Justin Wages</b>	Land Manager, Placer Land Trust	Bear Yuba Land Trust, Solano Land Trust, Feather River Land Trust, Placer County Resource Conservation District, and Sonoma Land Trust
<b>Lisa Fischer</b> , <i>Ex-Officio</i>	Associate Director, UC ANR Research and Extension Center System	
<b>Roger Ingram</b> , Facilitator	UC Cooperative Extension Advisor and County Director	Tahoe Cattlemen, 4-H, and Placer County Resource Conservation District
<b>Katherine Webb-Martinez</b> , <i>Process Support</i>	Analyst, UC ANR Program Planning and Evaluation	

# Strategy Framework

## ***UC ANR Vision Statement***

ANR envisions a thriving California in 2025 where healthy people and communities, healthy food systems, and healthy environments are strengthened by close partnerships between the University of California and its research and extension programs and the people of the state. The University remains connected and committed to the people of California, who enjoy a high quality of life, a healthy environment, and economic success in the global economy.

## ***Sierra Foothill REC Mission Statement***

Deliver state-of-the-art research and outreach support for key rangeland, agricultural and natural resource issues and lead and facilitate cooperative research, extension and education programs in these targeted areas.

# STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

Stakeholder groups recognized numerous opportunities for enhancing research support at SFREC and for SFREC to serve as a hub for information sharing and research integration. Key opportunities to increase support include expanding the role SFREC plays in managing long-term baseline monitoring efforts and databases that are of interest to a number of stakeholders, improving transparency in how resources are allocated and developing clear resource allocation guidelines, particularly for projects that require a significant amount of center resources. This latter effort includes making the Research Advisory Committee (RAC) review process more effective so the RAC can be in a more balanced position to advise the Director and Superintendent about allocation of land, labor and facilities. Stakeholder groups also recognized the research and outreach landscape will continue to change and SFREC should consider increased capacity to support evolving program needs. Along these lines, stakeholder groups recognized that as research efforts continue to expand and diversify, SFREC can play an important role in streamlining communication among researchers and help foster cooperative opportunities. This Strategic Direction identifies key goals and actions that will enable SFREC to enhance research support and information exchange for current and future researchers.

## GOALS

1. Improve understanding, utility and transparency of the Research Advisory Committee (RAC)
2. Expand amount and diversity of research SFREC can support
3. Promote collaborative research and information exchange
4. Make high quality, diverse datasets accessible
5. Expand the number and depth of long-term monitoring datasets directly managed by SFREC

## Intended Outcomes

- SFREC uses transparent land, labor, animal and facility allocation guidelines and data-driven decision making to determine research priorities
- The RAC is actively engaged in a clearly understood and effective process
- SFREC resources are fully utilized and support a diverse array of projects, both in terms of program scope and size
- SFREC increases the number of multidisciplinary and/or integrated projects
- Long-term monitoring datasets to support other research and extension projects

## STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

### GOAL 1: Improve understanding, utility and transparency of the Research Advisory Committee (RAC)

Key Actions	Implementation Responsibility	Deliverables
<b>1 A. Establish specific land, labor, animal and facility allocation guidelines</b>	SFREC Director in consultation with Associate Director of REC system	Allocation guidelines developed and approved
<b>1 B. Develop quantitative and qualitative ranking criteria and scoring metrics for project proposal decision making</b> <ul style="list-style-type: none"> <li>Proposals asked to identify the number of hours and acres needed, as well as flexibility of resource use</li> <li>Prioritize projects that actively engage other SFREC researchers</li> <li>Identify metrics that will enable project proposals to better articulate planned results (e.g. number of publications, number of Extension activities, anticipated outcomes/impacts)</li> </ul>	SFREC Director in consultation with Associate Director of REC system	Documented project proposal review process, including ranking criteria and scoring
<b>1C. Align RAC process with REC system processes including clarifying RAC roles and responsibilities and clarify guidelines for off-cycle review process</b>	Associate Director of REC system and subcommittee of REC Directors	Updated RAC Policy and Procedure with identified roles and responsibilities
<b>1D. Provide the RAC with an assessment of project proposals' resource impact and presents project trade-off issues prior to the RAC meeting</b>	SFREC Director	Project impacts on land, labor and animal resources and potential project trade-offs reported annually
<b>1E. Improve RAC preparation and participation</b> <ul style="list-style-type: none"> <li>Require one in-person meeting. Consider twice a year</li> <li>Establish an orientation</li> <li>Adopt in-depth reviewer model to better align member expertise with proposals and reduce workload</li> <li>Better define local RAC member role including role of agriculture and natural resource groups</li> </ul>	SFREC Director and RAC Chair	Updated RAC Policy and Procedure with identified roles and responsibilities
<b>1F. Simplify RAC proposal</b>	Associate Director of REC system and subcommittee of REC Directors	Simplified RAC proposal form

## STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

### GOAL 2: Expand amount and diversity of research SFREC can support

Key Actions	Implementation Responsibility	Deliverables
<p><b>2A. Explore support beyond traditional themes based on researcher and clientele interest</b></p> <ul style="list-style-type: none"> <li>Link new themes (e.g. vineyards, almonds, olives, small farms, fish, water resources) to existing areas of specialization (e.g. working landscape aspect, prescribed fire)</li> </ul>	SFREC Director in consultation with Associate Director of REC system	<ul style="list-style-type: none"> <li>Number of projects that are outside of the traditional livestock and range management program areas</li> </ul>
<p><b>2B. Develop a variety of mechanisms (e.g. departmental presentations, tours) to engage stakeholders not yet involved at SFREC to demonstrate research and outreach opportunities</b></p>	SFREC Director	<ul style="list-style-type: none"> <li>Stakeholders not previously involved</li> </ul>

## STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

### GOAL 3: Promote collaborative research and information exchange

Key Actions	Implementation Responsibility	Deliverables
<p><b>3A. Add dynamic website list of current projects and updates, including synthesized key findings and information packaged for the public</b></p> <ul style="list-style-type: none"> <li>Determine if this action requires a new position, redesign of existing position, or utilization of other resources</li> </ul>	SFREC assistant under guidance of SFREC Director	<ul style="list-style-type: none"> <li>Updated project information on website</li> </ul>
<p><b>3B. Establish a biennial meeting / symposium to highlight current work and future opportunities for stakeholders</b></p> <ul style="list-style-type: none"> <li>Encourage Work Groups and Program Teams to meet in conjunction with effort</li> </ul>	SFREC Director in collaboration with Principal Investigators	<ul style="list-style-type: none"> <li>Meeting held biennially</li> </ul>
<p><b>3C. Host Department Retreats</b></p>	UC Department heads	<ul style="list-style-type: none"> <li>Number of retreats held</li> </ul>
<p><b>3D. Enhance meeting and overnight facilities</b></p>	SFREC Director	<ul style="list-style-type: none"> <li>Internal proposals developed for facilities</li> </ul>

## STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

### GOAL 4: Make high quality, diverse datasets accessible.

Key Actions	Implementation Responsibility	Deliverables
<b>4A. Determine capacity needed to meet data management needs and flow given current FTE and new IGIS statewide program</b>	SFREC Director and IGIS lead	<ul style="list-style-type: none"> <li>Capacity assessment produced</li> </ul>
<b>4B. Develop committee to formalize process for acquiring, arranging and sharing raw data</b> <ul style="list-style-type: none"> <li>Require Project Investigators to provide their raw data (on soil, forage production, animal performance, watershed, etc.) to SFREC after publication</li> </ul>	IGIS guidance on mechanics, Associate Director of RECS and SFREC Director lead committee process	<ul style="list-style-type: none"> <li>Formalized process for data acquisition and sharing</li> </ul>
<b>4C. Work with IGIS to establish long-term data sharing and searchable dataset and make available on website</b>	IGIS lead	<ul style="list-style-type: none"> <li>Searchable data sets produced</li> </ul>
<b>4D. Market datasets, make easily available and well-known</b>	SFREC Director	<ul style="list-style-type: none"> <li>Data sets made available and widely known</li> </ul>

## STRATEGIC DIRECTION 1: Enhance SFREC-based Research Support and Research Integration

**GOAL 5: Expand the number and depth of long-term monitoring datasets directly managed by SFREC (e.g. watershed management, forage production, etc.)**

Key Actions	Implementation Responsibility	Deliverables
<p><b>5A. Allocate a portion of research hours to the long-term monitoring data gathering projects</b></p> <ul style="list-style-type: none"> <li>Develop and offer staff training</li> </ul>	SFREC Director	<ul style="list-style-type: none"> <li>Number of long-term monitoring datasets managed by SFREC (benchmark)</li> </ul>
<p><b>5B. Gather input from stakeholders to advise on long-term project scopes and designs</b></p>	SFREC Director	<ul style="list-style-type: none"> <li>Stakeholder survey conducted every 5 years or sooner if needed</li> </ul>

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

Stakeholder groups recognized SFREC is successful in supporting research and that extension and education programs are underdeveloped relative to the array of resources SFREC can offer. In addition, stakeholder groups recognized that extension and education programming needs are changing and there is a clear need to move beyond traditional “field-day” extension models and towards topical, hands-on, outcome-based extension and education programs. Stakeholders also recognized that ANR is developing an expanded vision of the Research and Extension Centers and is increasingly looking for opportunities to position extension programs at some of the Centers. Stakeholders recognized opportunities for academic positions to be housed at SFREC. Lastly, stakeholders broadly recognized that SFREC was minimally tied to the local agricultural community and that it was essential to have this local clientele increasingly interact with SFREC. This Strategic Direction identifies key goals and actions that will enable SFREC to expand extension and education efforts as well as enhance relevance of SFREC for the local community.

### GOALS

1. Enhance connectivity between SFREC and the local/regional agricultural and natural resource communities
2. Increase targeted, hands-on, extension efforts in animal and natural resource science
3. Increase availability of demonstration and teaching resources for clientele and college-level students (includes UC, CSU, and community college)
4. Capitalize on ANR, stakeholder and industry support for enhancing research and outreach resources
5. Develop comprehensive outreach, communications, and marketing plan (for local and state levels), that includes a feedback loop from clientele/public

### Intended Outcomes

- SFREC has active community engagement in planning and delivering extension education programming
- SFREC delivers hands-on extension activities to meet stakeholder needs and result in meaningful, documented outcomes
- Clientele and college-level students utilize SFREC education resources
- SFREC is able to enhance its physical and human resources to meet new extension and research goals
- SFREC implements a robust outreach strategy to increase stakeholder engagement

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

### GOAL 1: Enhance connectivity between SFREC and the local/regional agricultural and natural resource communities

Key Actions	Implementation Responsibility	Deliverables
<p><b>1A. Identify potential community education leaders and docents that can cooperate with SFREC to design local education programs targeting a broad audience</b> (e.g. California Naturalist Program, Master Gardener, local public schools, charters and non-profit education organizations)</p>	<p>SFREC Director lead in short term with anticipated Program Rep support (contingent on additional internal or external support)</p>	<ul style="list-style-type: none"> <li>• Contribution and number of partners involved in extension efforts</li> </ul>
<p><b>1B. Work with previous and current educators to develop, simple, engaging, and transferable field education activities for 4-H and K-8 that reflect ANR and SFREC mission</b></p> <ul style="list-style-type: none"> <li>• Explore collaboration opportunities with Office of Education to connect to 6<sup>th</sup> grade outdoor program, the Project Learning Tree, etc.</li> </ul>	<p>SFREC Director lead in short term with anticipated Program Rep support (contingent on additional internal or external support)</p>	<ul style="list-style-type: none"> <li>• Number of educational activities/programs available</li> </ul>
<p><b>1C. Engage 4-H, Master Gardeners, local high school, community college, and agricultural and natural resource-based youth groups programs to examine internship opportunities at SFREC</b></p>	<p>SFREC Director</p>	<ul style="list-style-type: none"> <li>• Internships available on an annual basis</li> </ul>

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

### **GOAL 2: Increase targeted, hands-on, extension efforts for agricultural and natural resource professionals**

Key Actions	Implementation Responsibility	Deliverables
2A. <b>Develop a mechanism to assess/solicit emerging extension and education needs across key stakeholder groups</b>	SFREC Director	<ul style="list-style-type: none"> <li>Process to identify stakeholder learning needs is documented and implemented</li> </ul>
2B. <b>Lead and facilitate topical, targeted, outcome-based extension programs by researchers and research groups</b>	SFREC Director	<ul style="list-style-type: none"> <li>Number and impact of programs</li> </ul>
2C. <b>Explore funding models to increase support for extension and education programs</b>	SFREC Director in coordination with REC System Administrators	<ul style="list-style-type: none"> <li>An assessment of alternative funding approaches completed and discussed with REC administrators</li> </ul>
2D. <b>Work with Departments, Program Teams and County-based programs to explore opportunity to house one or more academic positions</b>	SFREC Director in coordination with REC System Administrators	<ul style="list-style-type: none"> <li>Discussions exploring opportunities held and positions pursued based on agreements</li> </ul>
2E. <b>Explore opportunities for future staff positions to provide extension support</b>	SFREC Director in coordination with REC System Administrators	<ul style="list-style-type: none"> <li>Assessment of exiting position duties completed and opportunities for new positions pursued</li> </ul>

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

### GOAL 3: Increase availability of demonstration and teaching resources for educators

Key Actions	Implementation Responsibility	Deliverables
<b>3A. Survey stakeholders to identify key demonstration and teaching resource needs that can be provided at SFREC</b>	SFREC Director	<ul style="list-style-type: none"> <li>Completed survey</li> </ul>
<b>3B. Develop key demonstration areas</b>	SFREC Director & Superintendent	<ul style="list-style-type: none"> <li>Plan including budget for enhancement/capacity projects</li> <li>Number and use of demonstration areas installed</li> </ul>
<b>3C. Archive curriculum and content of previous and future efforts available on website (agendas, presentations, recorded videos, etc.) and provide live webinars</b>	SFREC administrative assistant and/or program rep	<ul style="list-style-type: none"> <li>Searchable online content</li> </ul>
<b>3D. Enhance efforts and build capacity to enable university students to utilize SFREC resources. Work with Departments to develop student opportunities tied to research projects and datasets development (e.g. field-based opportunities, internships, applied resource management skills, dorms, etc.)</b>	UC Departmental faculty with SFREC Director	<ul style="list-style-type: none"> <li>Number of college-level students engaged at SFREC in a variety of educational opportunities</li> </ul>

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

### **GOAL 4: Capitalize on ANR, stakeholder and industry support for enhancing research and outreach resources**

Key Actions	Implementation Responsibility	Deliverables
4A. <b>Secure new herdsman position</b>	SFREC Director with REC System Administrators	<ul style="list-style-type: none"> <li>• Herdsmen position hired (completed in 2013)</li> </ul>
4B. <b>Pursue on site or shared program representative positions.</b> (explore opportunities with UCOP Educational Partnership K-12 programs, 4-H, FFA other youth grant funding opportunities)	SFREC Director, County Directors, workgroups and REC System Administrators	<ul style="list-style-type: none"> <li>• Proposals developed</li> <li>• FTE allocated to manage local/regional educational programs hosting a broad spectrum of education programs (youth through adult)</li> </ul>
4C. <b>Enhance research, extension and education facilities based on increased program demand and given maintenance capacity</b> <ul style="list-style-type: none"> <li>• Determine appropriate capacity of existing dorms and offices to meet new goals</li> <li>• Explore internal and external funding and/or partnership opportunities for potential development of new demonstration building (lab space, conference center, commercial kitchen, expanded cell service, etc.)</li> </ul>	SFREC Director with REC System Administrators	<ul style="list-style-type: none"> <li>• Proposal to support new facilities developed</li> <li>• Number and impact of improvements</li> </ul>

## STRATEGIC DIRECTION 2: Expand Extension and Education Efforts at SFREC

**GOAL 5: Develop comprehensive outreach, communications, and marketing plan (for local and state levels), that includes a feedback loop from clientele/public**

Key Actions	Implementation Responsibility	Deliverables
5A. <b>Develop marketing plan for Center extension activities</b>	SFREC Director	<ul style="list-style-type: none"> <li>Approved marketing plan</li> </ul>
5B. <b>Keep website content up to date and relevant to stakeholder needs and emerging issues</b>	SFREC administrative assistant or program rep with guidance from SFREC Director	<ul style="list-style-type: none"> <li>Updated and relevant website</li> </ul>
5C. <b>Utilize and expand outreach mechanisms to remain relevant</b> (field days, stakeholder surveys, webpage analytics, K-8 student measurement tools, advisor clientele needs assessment information, social media etc.)	SFREC program rep with input from SFREC director	<ul style="list-style-type: none"> <li>Development and application and impact of outlined mechanisms</li> <li>Number and diversity of activities</li> </ul>

## STRATEGIC DIRECTION 3: Improve Management of Agricultural and Natural Resources

Research and outreach support at SFREC involves management of over 4,800 acres of rangeland and 160 acres of irrigated pasture that support an average carrying capacity of about 400 animal units. Demands for pasture resources as well as forage availability vary substantially year to year. For example, demand for certain classes of animals (e.g. cows, heifers, steers) can vary between 0 to over 600 animals while carrying capacity can vary between 200 to over 500 animal units because of year to year differences in forage production. Healthy animals, pastures, soils and watersheds that provide the foundation for all research and outreach programs at SFREC require integrated management of these variable resources.

Forage availability usually limits the number of research projects and research animals available. Increasing the efficiency of how forage is utilized provides an opportunity to increase the number and types of projects SFREC can support on an annual basis. Historically, the UC Davis Department of Animal Science has maintained a beef cattle herd year-round at SFREC and this herd has been used to supply the majority of animals for research projects. Stakeholder groups recognized the value of maintaining a UC-owned herd. Stakeholders also recognized opportunities to add flexibility and efficiency by working with industry to supply yearlings and weaned-calves for research. This Strategic Direction identifies key goals and actions that will enable SFREC to balance multiple stakeholders' needs while increasing research support capacity. This includes enhancement and clarification of the purposes, missions and goals of the Animal Health Care and Natural Resource committees and how to incorporate input generated from these committees into annual operations.

### GOALS

1. Develop an integrated management plan for agricultural and natural resources
2. Establish long-term stability of UC Davis Animal Science cow-calf herd and enhance flexibility in research animal source and stocking rate
3. Establish an equitable and consistent contract process for securing research animals
4. Enhance utility and function of Animal Health Committee
5. Review, reestablish and enhance utility and function of Natural Resource Committee

### Intended Outcomes

- SFREC applies, maintains and demonstrates UC-developed Best Management Practices of SFREC's agricultural and natural resources for educational purposes and improved sustainability in key land management areas
- To maximize the potential number of research animals available in a given year, SFREC will develop industry partnerships to primarily supply yearling and weaned-calf research needs, and will develop contracts with UC Davis Department of Animal Science and/or other UC ANR partners or industry to primarily supply cow-calf research needs
- SFREC implements and demonstrates fair research animal contracts
- Animal Health committee actively and effectively provides input on managing SFREC animal and pasture resources
- Natural Resource committee develops, provides guidelines and makes annual assessments on SFREC natural resources

## STRATEGIC DIRECTION 3: Improve Management of Agricultural and Natural Resources

### GOAL 1: Develop an integrated management plan for agricultural and natural resources

Key Actions	Implementation Responsibility	Deliverables
<p><b>1A. Manage pastures and animal movements for research, animal production (e.g. animal health and nutrition) and natural resource objectives</b></p> <ul style="list-style-type: none"> <li>• SFREC supports a herdsman position to plan and implement animal movements</li> <li>• UC Davis Animal Science staff manages animal production activities (e.g. breeding, vaccination) for Animal Science herd and coordinates animal movement needs for herd production activities with SFREC superintendent and SFREC herdsman.</li> <li>• Director and Superintendent establish a transparent, data driven process for annual grazing plans (initial plan in summer, revised plan in late winter)</li> </ul>	<p>SFREC Director, SFREC Superintendent, SFREC Herdsman, and UC Davis Animal Science staff</p>	<ul style="list-style-type: none"> <li>• Animal movement plan developed by Superintendent and SFREC herdsman and implemented by SFREC herdsman</li> <li>• Animal Science and SFREC both indicate coordination is working well</li> <li>• Annual grazing plan (initial in summer, revised in winter) developed, implemented and communicated (includes documentation of data driven process to develop plan)</li> </ul>
<p><b>1B. Publish pasture and animal performance data on website</b></p>	<p>SFREC Superintendent</p>	<ul style="list-style-type: none"> <li>• Data sets available on website</li> </ul>

## STRATEGIC DIRECTION 3: Improve Management of Agricultural and Natural Resources

**GOAL 2: Establish long-term stability of cow-calf herd owned by the UC Davis Department of Animal Science and enhance flexibility in research animal source and stocking rate**

Key Actions	Implementation Responsibility	Deliverables
2A. <b>Allocate herd capacity to incorporate project needs utilizing a combination of UC-owned cow/calf animals and industry-sourced yearling/weaned-calf animals</b>	SFREC Director	<ul style="list-style-type: none"> <li>Research animals secured per animal class meets needs of approved projects</li> </ul>

**GOAL 3: Establish an equitable and consistent contract process for securing research animals**

Key Actions	Implementation Responsibility	Deliverables
3A. <b>Determine and develop contracts for re-search animals supplied by UC and industry</b> <ul style="list-style-type: none"> <li>Address management responsibilities, financial obligations, and long-term commitment of UC animal units</li> </ul>	Associate Director of the REC System and SFREC Director	<ul style="list-style-type: none"> <li>Contracts for animals used in re-search developed for UC and industry partners</li> <li>Completed and signed formal contract with UC Davis Dept. of Animal Science and industry partners that clearly articulates agreements on animal units, management responsibilities, and financial obligations</li> </ul>

## STRATEGIC DIRECTION 3: Improve Management of Agricultural and Natural Resources

### GOAL 4: Enhance utility and function of Animal Health committee

Key Actions	Implementation Responsibility	Deliverables
<b>4A. Establish committee purpose, mission and goals</b>	SFREC Director, UC Davis-IACUC representative, ANR Health and Safety, UC Davis Veterinary Medicine Teaching Hospital (VMTH), Animal Health Care Committee	<ul style="list-style-type: none"> <li>Animal Health committee has a documented, approved charter</li> </ul>
<b>4B. Create and review biosecurity plan</b>	SFREC Director, UC Davis-IACUC representative, ANR Environmental Health and Safety, ANR Risk Services, UC Davis VMTH, Animal Health Care Committee	<ul style="list-style-type: none"> <li>A transparent biosecurity plan is implemented</li> </ul>
<b>4C. Guide collection, review and evaluation of animal health and production data including recommendation on post mortems</b>	SFREC Superintendent	<ul style="list-style-type: none"> <li>Regular summary of health and management outcomes (determined in charter) that are in a single location, in a uniform manner, available to all interested parties for all cattle kept at SFREC</li> </ul>
<b>4B. Ensure Animal Health committee coordinates with Natural Resources committee (e.g. on drought management planning)</b>	SFREC Director and SFREC Superintendent	<ul style="list-style-type: none"> <li>Documented interactions with Natural Resources committee</li> </ul>

## STRATEGIC DIRECTION 3: Improve Management of Agricultural and Natural Resources

### GOAL 5: Review, reestablish and enhance utility and function of Natural Resource Committee

Key Actions	Implementation Responsibility	Deliverables
<b>5A. Establish and document purpose, mission and goals of committee and committee members</b>	SFREC Director, SFREC Superintendent with guidance from REC system Administrators	<ul style="list-style-type: none"> <li>Document describing purpose, goals and mission of the committee</li> </ul>
<b>5B. Develop a new, long-term integrated management plan that incorporates best management practices (BMPs) and addresses future goals</b> <ul style="list-style-type: none"> <li>Review existing natural resources plan</li> <li>Develop guidelines and targets for natural resources and animal resources.</li> </ul>	Natural Resource Committee	<ul style="list-style-type: none"> <li>Documented natural resource plan outlining BMP's available on the web</li> </ul>
<b>5C. On annual basis review candidate non-BMP scenarios based on research needs</b>	Natural Resource Committee	<ul style="list-style-type: none"> <li>Annual review of research-driven candidate scenarios that may fall short of BMP</li> </ul>
<b>5D. Review data on irrigated and dryland pasture production and residual dry matter and monitor development of key riparian areas and watersheds</b>	Natural Resource Committee	<ul style="list-style-type: none"> <li>Pasture data available, qualitative riparian assessments reviewed by committee, watersheds visited and committee recommendations documented</li> </ul>

## STRATEGIC DIRECTION 4: Review and Enhance Staffing Plans and Administrative Processes

Stakeholder groups recognize research, extension and education support needs are evolving faster than staffing opportunities and that it would be helpful to assess current and anticipated staffing needs to allow SFREC to position itself in a way that most effectively utilizes future staffing opportunities. Stakeholder groups identified a broad need to clarify the mission, goals and actions of the committee and to align the function of this committee with the larger strategic planning process. This Strategic Direction identifies key goals and actions that will enable SFREC to prepare for future staffing opportunities, streamline administrative processes and better integrate active committee work with this broader planning process.

### GOALS

1. Develop long-term staffing plan (staff and academic positions) to meet future research and extension needs
2. Evaluate research and extension project management (workflow structure/processes) AND key business processes to identify opportunities for improvement

### Intended Outcomes

- Current and future staffing needs are addressed
- Project management and businesses processes are improved as needed

## STRATEGIC DIRECTION 4: Review and Enhance Staffing Plans and Administrative Processes

### **GOAL 1: Develop long-term staffing plan (staff and academic positions) to meet future research and extension needs**

Key Actions	Implementation Responsibility	Deliverables
1A. <b>Survey current and perspective researchers to assess ongoing and future staff needs</b>	SFREC Director and Superintendent	<ul style="list-style-type: none"> <li>• Survey results</li> </ul>
1B. <b>Assess current staff capacity within existing resources and in relation to anticipated future needs, including succession planning</b>	SFREC Director and Superintendent	<ul style="list-style-type: none"> <li>• Staffing plan documented and implemented</li> </ul>
1C. <b>Acquire approval/funding to staff future requirements</b>	SFREC Director and Superintendent	<ul style="list-style-type: none"> <li>• Budget for staffing plan developed and approved</li> </ul>

### **GOAL 2: Evaluate research and extension project management (workflow structure/processes) AND key business processes to identify opportunities for improvement**

Key Actions	Implementation Responsibility	Deliverables
2A. <b>Survey current researchers and SFREC staff to assess current satisfaction with workflow process and solicit ideas for enhancement</b>	SFREC Director	<ul style="list-style-type: none"> <li>• Existing workflow structure/processes documented</li> <li>• Survey conducted to identify needs for management processes improvement</li> <li>• Revised workflow structure/processes that addresses concerns implemented</li> <li>• Survey with annual research report</li> </ul>