

# Intermountain Research and Extension Center **STRATEGIC PLAN**

2015 - 2035



**University of California**  
Agriculture and Natural Resources

Research and Extension Center System



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# INTRODUCTION

The Intermountain Research and Extension Center (IREC) is one the University of California (UC), Division of Agriculture and Natural Resources' (ANR's) nine Research and Extension Centers (RECs). The Centers are located throughout California's various ecosystems and climatic zones representing nearly every type of agricultural and natural resources system in California. The RECs offer researchers places to conduct high quality **experiments and deliver scientific information** to local communities.

IREC is located on 140 acres near Tulelake, CA in the northeast corner of the state. IREC's soil, climate, and elevation are very unique within the REC system and are a perfect complement for **agriculture research and education specific to the Intermountain Region of Northern California**. The REC was established in 1947 under a cooperative agreement between the Bureau of Reclamation, Tulelake Growers Association, and University of California to conduct agriculture research and advise newcomers on proper farming techniques. These productive relationships continue today, and they are a major reason for IREC's success in helping shape Tulelake agriculture. Typical crops grown at the Center include potato, small grain, onion, peppermint, horseradish, forage grasses, and alfalfa; however, most cool-season field and vegetable crops can be accommodated and grown on the Center. Research topics of current interest include variety development, integrated pest management, irrigation management, plant

nutrition, and agriculture-wildlife interactions. Available Center facilities and equipment include a greenhouse; controlled post-harvest facility; drying ovens; an automated potato grading line; a mini-still for essential oil extraction; specialized small plot irrigation equipment; research adapted small plot planters and harvesters; and a full line of **commercial farm equipment for field and vegetable crop production**. Technical assistance is available for all farming practices, field instrumentation, and data collection.

Since its introduction in the early 20th century, agriculture has played a key role in supporting the local economy. Tulelake's soil and climate are well-suited for production of cool-season crops and crop yields have steadily increased due to improved farming practices. Agriculture is important to local wildlife especially migratory birds. Over 18,000 acres of leased cropland at the U.S. Fish & Wildlife Service Tule Lake National Wildlife Refuge are managed by the Bureau of Reclamation to provide grain and potatoes as a major food source for waterfowl. Klamath Basin agriculture has become synonymous with water challenges centering around competition for limited water supplies needed for irrigation and endangered species, including native sucker fish and salmon. The future of Klamath Basin Agriculture is largely dependent on finding a balance in water supplies and water quality that **benefit both agriculture and fish survival**.

IREC has a strong foundation in conducting research and education that supports agriculture and natural resources, however, additional research and education is needed to address the shifting water crisis and sustainability of agriculture in the Klamath Basin. IREC's strategic planning committee highlighted future opportunities in research and education related to water, pest management, new technologies, child and adult learning, organic production, and new crops. Limitations in funding, aging infrastructure, water shortages, and IREC's long distance from UC **campuses were challenges identified by the committee**. The future of IREC will rely heavily on building existing and new partnerships with farms, land management agencies, businesses, and public universities.

# 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 closer partnerships between 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.

## Intermountain REC Mission Statement

Intermountain Research and Extension Center (IREC) strives to be the leading resource for research and extension education related to agriculture and natural resources in the Klamath Basin and Intermountain Region of Northeast California.





# 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.

The REC system’s overall strategic planning effort is structured to include the following guiding goals:

- Develop an effective and organized approach for research and outreach at the centers and among the centers.
- Increase collaboration across the UC ANR network, including collaborations with surrounding University of California Cooperative Extension (UCCE) programs.
- Engage the local community in planning and implementation (local community is not necessarily geographically based but also subject-area based).
- **Engage partners not previously affiliated** (e.g., nonANR UC campuses, California State Universities and other colleges, agencies, organizations).
- Align the REC strategic plan with the UC ANR Strategic Vision 2025.
- Develop an effective communication and

- outreach program to increase visibility and programmatic impact of the REC system.
- 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

In October 2015, a 13-member strategic planning committee was formed (see table next page) with members broadly representing major IREC stakeholder groups. These core committee members served as assessment and feedback links with the diverse stakeholder group vested in the long-term future of IREC. In December 2015 the IREC Strategic Planning Committee kicked off its strategic planning process that included assessment, strategy formulation and implementation accountability. The committee had three, one-day, in-person **meetings. The first meeting provided an overview** of the Division’s vision, the UC REC system’s long-term goals, and IREC’s mission, history, and operations. The committee conducted a situational analysis that included obtaining input from other key stakeholders to identify current strengths of IREC, as well as outline potential future opportunities **and challenges that could influence how IREC** operates in the future. The second meeting focused on understanding and exploring the stakeholder input, synthesizing this input into broad strategic directions, and developing goals and key actions associated with each strategic direction. Committee

members then went back to key stakeholder groups to get feedback on the committee’s proposed strategy, which was discussed during the third **meeting and helped refine the content of the** draft strategic plan. The director of IREC, director **of the REC system, and facilitator finalized the** draft strategic plan including the implementation accountability elements, intended outcomes, implementation responsibility, and deliverables. **This final draft plan was circulated one last time for** committee member comment during March 2016.

## Implementation of strategic plan and assessment of outcomes

Early on in the REC system’s strategic planning process, it was recognized that the strategic planning process must be intimately linked to a streamlined and executable implementation and assessment **plan. Toward this end, the IREC Director identified** 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 responsibility and deliverables will be used as the framework for identifying implementation priorities and assessing implementation progress through time. The IREC Director in conjunction with 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 IREC Director to jointly set outcome targets and annually review progress toward priorities.

COMMITTEE MEMBER	COMMITTEE MEMBER STAKEHOLDER AFFILIATION	STAKEHOLDER GROUPS THAT PROVIDED INPUT
Rob Wilson	Center Director, UC ANR IREC and UCCE Farm Advisor, Siskiyou County	<ul style="list-style-type: none"><li>• U.S. Fish and Wildlife Service</li></ul>
Darrin Culp	Principal Superintendent of Agriculture, UC ANR IREC	
Tom Getts	UCCE Weed Ecology and Cropping Systems Advisor, Lassen County	<ul style="list-style-type: none"><li>• UCCE Advisors</li><li>• USDA Natural Resources Conservation Service</li><li>• Resource Conservation Districts</li></ul>
Steve Orloff	UCCE County Director and Crops Advisor, Siskiyou County	<ul style="list-style-type: none"><li>• Siskiyou County Farm Bureau</li></ul>
Brian Charlton	Research and Extension Agronomist, Oregon State University Klamath Basin Research and Extension Center	<ul style="list-style-type: none"><li>• Farm Credit Services</li></ul>
Nick Macy	Owner/Manager, Macy's Flying Service	<ul style="list-style-type: none"><li>• Local Pest Control Advisors (PCAs)</li></ul>
JW Cope	Grain Merchant, Winema Elevators LLC	<ul style="list-style-type: none"><li>• Future Farmers of America at Henley High School, Lost River High School, and Tulelake High School</li></ul>
Cody Dodson	Owner/Operator, Cody Dodson Farms	<ul style="list-style-type: none"><li>• Modoc County Farm Bureau</li></ul>
Sid Staunton	Owner/Operator, Staunton Farms LP; President/Owner, Cal-Ore Produce	<ul style="list-style-type: none"><li>• California Potato Research Advisory Board</li><li>• Cattle Producers – East Side</li><li>• Lava Beds Resource Conservation District Directors</li><li>• Organic carrot producers</li></ul>
Marc Staunton	Owner/Operator, Staunton Farms LP	<ul style="list-style-type: none"><li>• Tulelake Irrigation District</li><li>• Klamath Water Users Association</li></ul>
Jim Smith	Agriculture Commissioner, Siskiyou County Agriculture Department	<ul style="list-style-type: none"><li>• California Nursery Producers/Commission</li><li>• Cattle Producers – West Side</li></ul>
Mark Lundy	UCCE Grain Cropping Systems Specialist, UC Davis	<ul style="list-style-type: none"><li>• UCCE Specialists</li></ul>
Lisa Fischer, Ex-Officio	Director, UC ANR Research and Extension Center System	
Kit Alviz, Facilitator	Analyst, UC ANR Program Planning and Evaluation	
Lauren McNees, Staff	Program and Event Specialist, UC ANR Program Support Unit	





# STRATEGIC DIRECTION #1

Address critical regional issues related to agriculture and natural resources using innovative research

Critical regional issues include water availability, pest management, soil health, and economic stability. IREC research provides science-based information to help with decision making and problem-solving. IREC research will assist stakeholders in identifying and evaluating new opportunities related to crops, natural resource conservation, and technology.

## Goals

1. Expand the scope, diversity, and influence of IREC research
2. Expand the capacity of IREC facilities, infrastructure, and staff to address critical issues

## Intended Outcomes

- Regional growers improve economic stability through adoption of new crops, crop management plans, and technologies researched by IREC.
- Plans, tools, and training programs developed by IREC address critical issues in the region and contribute to the conservation of limited resources.
- IREC research capacity is expanded onsite as well as offsite enabling more diverse research to be conducted serving a broader stakeholder audience.



# STRATEGIC DIRECTION #1

## Goal 1: Expand the scope, diversity, and influence of IREC research

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Identify critical issues in the Intermountain region	IREC Director in coordination with local industry and IREC's Research Advisory Committee (RAC)	<ul style="list-style-type: none"><li>Periodic needs assessment conducted in consultation with stakeholders</li></ul>
B. Create new connections and research opportunities for academics with expertise related to critical issues	IREC Director and UC and non-UC academics ("academics")	<ul style="list-style-type: none"><li>Communication plan developed</li><li>Number of studies conducted</li><li>New linkages with researchers</li></ul>
C. Develop diagnostic and decision-making tools that assist stakeholders in crop and natural resource management	Academics and IREC Staff	<ul style="list-style-type: none"><li>Diagnostic tools developed</li><li>Improved management of limited resources including water, nutrients, and energy</li></ul>
D. Investigate new innovative cropping systems and technologies	Academics and IREC Staff in coordination with RAC and industry stakeholders	<ul style="list-style-type: none"><li><b>New crops and markets that are profitable under local conditions identified</b></li><li>New technologies researched and demonstrated</li><li>Crop management plans developed and revised</li></ul>

## Goal 2: Expand the capacity of IREC facilities, infrastructure, and staff to address critical issues

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Leverage UC ANR resources to increase IREC's research capacity	IREC Director and REC System Director in coordination with UC ANR Administration	<ul style="list-style-type: none"><li>UC ANR and IREC resources aligned</li><li>New positions creatively funded</li><li>Increased funding for IREC research</li></ul>
B. Ensure IREC equipment and facilities meet the needs of researchers and staff	IREC Director and IREC Staff in coordination with UC ANR, researchers, and industry stakeholders	<ul style="list-style-type: none"><li>Periodic equipment needs assessments conducted</li><li>Plan developed and proposed to UC ANR</li></ul>
C. Provide staff education and training opportunities on use of new equipment and technologies	IREC Director in coordination with researchers	<ul style="list-style-type: none"><li>Needs assessment conducted</li><li>Plan developed and proposed to UC ANR</li><li>New training programs developed and evaluated</li></ul>
D. Explore offsite research opportunities and extend the scope and sphere of influence of IREC research	IREC Director and IREC Staff in coordination with RAC, academics, and local partners	<ul style="list-style-type: none"><li>Needs assessment conducted (e.g., materials, equipment for remote connections)</li><li>Plan developed and proposed to UC ANR</li><li>Expanded infrastructure and staff capacity for offsite research</li><li>IREC procedures developed that facilitate offsite research</li></ul>



## STRATEGIC DIRECTION #2

### Provide research and extension programming to support agriculture and local communities

Northeast California is largely made up of rural communities, public lands, and agriculture-based economies. The region has a rich history in agriculture and natural resources and this trend continues today. A wide diversity of stakeholders rely on science-based information to make informed decisions on agricultural production, conservation, and new policies. The region's agriculture-based economy also relies on science-based information to inform the general public on the importance of agriculture, its benefits, and its risks. It is very important for IREC to stay in tune with community needs and use communication platforms that effectively inform the public on research results, recommendations, and new technologies.

#### Goals

1. Ensure IREC research and extension programming takes advantage of new communication platforms
2. Educate the public on importance of agricultural issues

#### Intended Outcomes

- Expanded programming and reach through more effective and efficient communications.
- Local communities have increased understanding and appreciation of agricultural issues.



# STRATEGIC DIRECTION #2

## Goal 1: Ensure IREC research and extension programming takes advantage of new communication platforms

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Conduct a needs assessment to identify appropriate forums for delivering information to clientele and stakeholders	IREC Director and IREC Staff	<ul style="list-style-type: none"><li>Periodic needs assessment conducted</li><li>Reach of programs documented and evaluated</li></ul>
B. Create a communications plan and strategy for utilizing new platforms and improving speed of information delivery	IREC Director, IREC Staff, and academics	<ul style="list-style-type: none"><li>Communications plan created for program delivery tools and methods</li><li>New platforms for teaching utilized (e.g., online videos, websites)</li><li>Enhanced instructional infrastructure for onsite learning</li></ul>

## Goal 2: Educate the public on importance of agricultural issues

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Provide opportunities for youth to learn about and experience agriculture	Academics and IREC staff in coordination with UC ANR Youth, Families, and Communities (YFC) Program and local youth organizations	<ul style="list-style-type: none"><li>Number of field trips and internships hosted</li><li>Number of classroom visits</li><li>Collaborations with other organizations (i.e., Future Farmers of America) and other UC ANR academics and programs (i.e., 4-H and UCCE YFC Advisors)</li><li>Increased capacity to support these opportunities (e.g., staff)</li></ul>
B. Leverage UC and ANR networks to provide programming, materials, and events addressing regional issues such as biotechnology and water conservation	IREC Director and IREC staff working with academics and UC ANR Strategic Initiatives and Program Teams/ Workgroups	<ul style="list-style-type: none"><li>Educational events hosted</li><li>Number of newsletters and local press releases published</li><li>New working relationships with UC and ANR academics</li></ul>
C. Provide opportunities for the public to learn about IREC programs and research	IREC Director, IREC Staff, regional office, and local partners	<ul style="list-style-type: none"><li>Number of field days and tours hosted</li><li>Participation documented</li><li>Collaborations with other organizations</li><li>Shared calendars and advertising</li></ul>
D. Expand the reach of IREC’s education and outreach programs	Academics and IREC Staff in coordination with local partners, local media, UC ANR YFC Program, and UC ANR Communication Services and Information Technology	<ul style="list-style-type: none"><li>New audiences reached</li><li>Increased spectrum of IREC program participants</li></ul>





## STRATEGIC DIRECTION #3

### Foster public and private partnerships

IREC's strong working relationships with growers, businesses, and public agencies were identified as a major strength by the steering committee, and building on these existing relationships is very important for IREC to be able to address future research and education opportunities. Ever-changing agriculture and natural resource issues also require IREC to seek out new partnerships with public agencies and private groups. History has repeatedly shown IREC partnerships are critical to increasing community engagement, and fostering existing and new partnerships is critical for IREC's ability to overcome funding limitations, conduct new research, and engage local communities on new issues.

#### Goals

1. Continue strong working relationships with producers, industry, public organizations, and land managers
2. Create new public and private partnerships

#### Intended Outcomes

- Stakeholder groups have increased awareness of IREC's research and programming opportunities and outcomes.
- Research and engagement are expanded through strengthened and new partnerships, increased funding, and shared resources.



# STRATEGIC DIRECTION #3

## Goal 1: Continue strong working relationships with producers, industry, public organizations, and land managers

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Regularly evaluate stakeholder needs	IREC Director in coordination with RAC	<ul style="list-style-type: none"><li>Periodic needs assessments conducted and documented</li><li>Action plans developed</li></ul>
B. Maintain a high awareness of IREC programs with stakeholder groups	IREC Director and IREC Staff in coordination with RAC and local partners	<ul style="list-style-type: none"><li>Communications plan created for program delivery tools and methods (e.g., advertised events, printed and online education materials, internet content)</li><li>Outcomes of IREC research evaluated and demonstrated (i.e., adopted behaviors on x acreage)</li></ul>
C. Explore opportunities for shared resources with stakeholder groups including Oregon State University Klamath Basin Research and Extension Center	IREC Director in coordination with commodity commissions, local partners, and other academic institutions	<ul style="list-style-type: none"><li>Shared positions created</li><li>Collaborative research projects and programming</li><li>Resources and equipment leveraged through collaboration</li></ul>

## Goal 2: Create new public and private partnerships

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
A. Host events at IREC that promote collaboration and strengthen relationships focused on specific critical regional issues	IREC Director and IREC Staff	<ul style="list-style-type: none"><li>Number of meetings hosted or facilitated by IREC staff</li></ul>
B. Identify new funding partners and fundraising opportunities to support IREC’s mission and research	IREC Director and REC System Director in coordination with UC ANR Development Services, local partners and other political and public entities with interests in agricultural research funding	<ul style="list-style-type: none"><li>Fundraising plan developed</li><li>Increased research funding</li><li>New partnerships</li></ul>
C. Advance researcher and staff participation in education events, community service, and regional steering and action committees	IREC Director and REC System Director	<ul style="list-style-type: none"><li>Researchers and staff participation in new events</li><li>Committees with new IREC involvement</li></ul>



## UC ANR Intermountain

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