

West Side  
Research and Extension Center  
**STRATEGIC PLAN**

2014 - 2034



**University of California**  
Agriculture and Natural Resources

Research and Extension Center System



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# INTRODUCTION

The West Side Research and Extension Center (WSREC) is one of 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 and offer researchers places to conduct experiments and outreach programs.

WSREC is located in western Fresno County on 320 acres of Panoche clay loam, a deep, well-drained and highly productive alluvial soil. The REC was established in 1958 with the significant help of area farmers and industry groups. WSREC continues its partnerships with neighboring farms and many agricultural commodity groups. Productive relationships continue with local businesses and farms assisting with tasks WSREC would not be able to accomplish alone. WSREC typically supports over 35 research projects per year with a variety of researchers and institutions (UC, United States Department of Agriculture Agricultural Research Service (USDA-ARS), California State Universities (CSU)).

Typical crops include annual crops such as cotton, sugar beets, small grains, garlic, onions, melons, lettuce and processing tomatoes. In recent years, the crop mix has shifted to include grapes and nut tree crops. This shift will likely be represented in future REC research projects. There have been major efforts in the past 15-20 years to utilize large research plots for long-term studies related to impacts of conservation tillage on soil and environmental quality components as well as crop responses. The western San Joaquin Valley, home of WSREC, is perhaps the top location in the United States and in the world to offer natural environmental conditions for evaluating crop responses to drought. Water supply, irrigation water quality and salinity issues will be important parts of this research in future years at WSREC, along with continuing research shifting from surface irrigation (furrow, flood) to pressurized drip and sprinkler systems. WSREC is in a position to meet the future research and extension needs of the San Joaquin Valley crop production area.



# 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.

## West Side REC Mission Statement

The West Side Research and Extension Center emphasizes research and extension education efforts on the needs of semi-arid zone agricultural crop producers interested in both annual and perennial crop choices in the western United States.

# STRATEGIC PLANNING PROCESS

## REC system overarching goals

In 2012 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 and with a focus on implementation and assessment of plan deliverables through time. The REC system strategic planning effort was structured to include the following goals:

- Develop an effective and organized approach for research and the outreach component at and among the centers
- Increase collaboration across the 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 place-based but also subject area-based)
- Engage previously unaffiliated partners (e.g., non-ANR UC campuses, CSUs, relevant agencies, organizations)
- Align REC strategic plan with the ANR Strategic Vision 2025 ([http://ucanr.edu/About\\_ANR/Strategic\\_Vision/](http://ucanr.edu/About_ANR/Strategic_Vision/))
- 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 WSREC Committee

In January 2014, a twelve-member strategic planning committee was formed (see page 7) with members broadly representing major WSREC stakeholder groups. These core committee members served as assessment and feedback links with the diverse stakeholder group vested in the long-term future of WSREC. In March 2014, the WSREC Strategic Planning Committee kicked off its strategic planning process that included assessment, strategy formulation and implementation accountability. The committee had four one-day, in-person meetings. The first meeting provided an overview of the UC Research and Extension Center’s mission and long-term goals, as well as a summary of current operations at WSREC. Operational challenges and opportunities as seen by the Director, Superintendent, and other staff were also shared. From this meeting, committee members were asked to conduct a situational analysis with their stakeholder groups to identify current strengths and weakness of WSREC, as well as identify potential future opportunities and threats that could influence how WSREC operates in the future. The second meeting focused on understanding and exploring stakeholder input and synthesizing this information into four strategic directions. The third

meeting honed the scope of the strategic directions and developed goals and key actions associated with each strategic direction. Prior to the last meeting, committee members consulted with their stakeholder groups and received feedback on the proposed strategic directions, goals and key actions. This feedback was explored during the last meeting in September 2014 and used to refine the content of a draft strategic plan. The draft plan was then circulated for comment in September 2014 and a final plan was approved in December 2014.

## Implementation and assessing strategic plan outcomes

The WSREC 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 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 WSREC 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 WSREC Director to jointly set outcome targets and annually review progress toward agreed-upon priorities.

COMMITTEE MEMBER	COMMITTEE MEMBER STAKEHOLDER AFFILIATION	ADDITIONAL STAKEHOLDERS CONTACTED
Bob Hutmacher, Chair	UC ANR WSREC director and UC Cooperative Extension Agronomy specialist in the Plant Sciences Department at UC Davis	County Agriculture Commissioner and equipment companies
Sharon Benes	Professor of Soil Sciences, CSU Fresno	Researchers from California State University and USDA-ARS
Gurreet Brar	UCCE advisor in Fresno and Madera Counties, tree and nut crops	Growers, UCCE specialists, growers' associations
Robert Ehn	CEO, Technical Manager, California Garlic and Onion Research Advisory Board	Processors, Advisory Board members
Mark McKean	Grower, owner/manager, McKean Farms, Inc.	Growers, growers' associations, equipment manufacturers
Wyatt McKean	Grower, McKean Farms, Inc.	Seed retailers, growers' associations, irrigation
Dan Munk	UCCE advisor in Fresno County, soil and water, agronomic crops	Researchers, agencies, growers, advisors
Chuck Rivara	Research Advisor, Director, California Tomato Research Institute, Inc.	Processors, consultants, UCCE advisors
Scott Schmidt	Grower and manager, Farming D Corporation	Growers, processors, growers' associations
Geoff Schulz	Penny Newman Grain Corporation	Seed companies, agronomists, manufacturers, UCCE specialists
Tom Turini	UCCE advisor in Fresno and Madera Counties, vegetable crops and plant pathology	Growers, researchers
Florence Cassel Sharma	Professor of Plant Sciences, CSU Fresno	Researchers from CSU and USDA-ARS, other agencies
Lisa Fischer, Ex-Officio	Associate Director, UC ANR REC System	
Alison Kent, Facilitator	Communications Coordinator, UC ANR REC System	
Sandra Wais, Logistics	Analyst, UC ANR Program Support Unit	
Katherine Webb-Martinez, Facilitator	Analyst, UC ANR Program Planning and Evaluation	

STRATEGIC DIRECTION  
#1



## Secure robust and reliable water for research



Adequate and reliable irrigation water supplies are a key need for the WSREC to continue to meet research crop water requirements and expand support for diverse research projects covering a wide range of regional and statewide needs. Water delivery issues affecting WSREC research operations include reliability, quality and timing of availability of irrigation water supplies, alternative irrigation water sources and costs, suitability of water delivery infrastructure and water storage capacity. There are political and institutional issues

to navigate to secure more consistent and higher quality water and guarantee minimum deliveries from the irrigation district supplying WSREC, as well as ongoing dialogue and creative approaches involving stakeholders in the region to improve the Center's ability to better meet researchers' water needs. This Strategic Direction identifies specific goals and actions necessary to better enable WSREC to identify irrigation water supplies and delivery systems to support a diversity of current and future research projects.

## Goals

1. Secure adequate water supply to conduct research
2. Improve water storage capacity and delivery infrastructure to conduct research

## Intended Outcomes

- Research and stakeholder advisory group convened to assist WSREC in identifying reliable and cost-effective ways to enhance irrigation water supplies to fully support and expand crop research capabilities
- Working relationships with irrigation water district representatives and Westlands Irrigation District Board members enhanced to secure water supplies that will permit agricultural research essential to local agricultural issues
- New, deep irrigation water well installed to provide a larger quantity of irrigation water for long-term project support
- Water delivery infrastructure and storage capacities upgraded to better serve project needs for both gravity-flow and pressurized irrigation systems, assuring efficient use of water
- Additional water storage and secondary water supply lines provide capabilities for multiple levels of salinity available for research on salt tolerance in crops

# STRATEGIC DIRECTION #1

## Goal 1: Secure adequate water supply to conduct research

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
1A. Create an advisory group (West Side Advisory Group, WSAG) with appropriate subject matter subcommittees, including water	Center Director, WSAG members, Research Advisory Committee (RAC)	<ul style="list-style-type: none"> <li>Group convened and water subcommittee identified</li> </ul>
1B. Identify additional opportunities for supplemental water by meeting with growers and Westlands Irrigation District	Center Director WSAG, RAC	<ul style="list-style-type: none"> <li>Supplemental water sources identified</li> </ul>
1C. Host regular meetings with key irrigation water district representatives, including Westlands, in order to improve relationships and advocacy for the REC	Center Director	<ul style="list-style-type: none"> <li>Number of meetings (phone and face-to-face)</li> </ul>

## Goal 2: Improve water storage capacity and delivery infrastructure to conduct research

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
2A. Convene WSAG and irrigation specialists and advisors (for example) to identify opportunities for increasing and improving water delivery infrastructure	Center Director, ANR Facilities Director, EH&S, WSAG	<ul style="list-style-type: none"> <li>Improved water delivery infrastructure</li> </ul>
2B. Select site, secure resources and build new well	Center Director, Water Subcommittee of WSAG, UC ANR Facilities	<ul style="list-style-type: none"> <li>Site selected, resources secured, new well built</li> </ul>
2C. Select sites, secure resources and build new water storage reservoirs and secondary pipeline systems to provide distribution of water of different qualities to targeted areas	Center Director, Water Subcommittee of WSAG, RAC	<ul style="list-style-type: none"> <li>Sites selected, resources secured, new water storage reservoirs and pipeline systems built</li> </ul>



STRATEGIC DIRECTION  
#2



## Expand research opportunities at WSREC



Opportunities exist for new areas of research or expansion of existing research at WSREC. Research areas of regional or statewide interest that are perceived as having high potential for future support and success at WSREC include new crop introductions, conservation tillage systems research, irrigation water management, crop stress and salinity research, including cultivar screening for drought and salinity resistance and tolerance, and continuing work in disease and pest management. Opportunities exist to attract more complex, multi-faceted projects in the future in spite of the remote location of the REC, travel time and costs.

Capabilities for higher levels of technical skills in support staff are often important for selection of WSREC as a site for some research. Improved internet capabilities are also vital to support research and outreach activities. Communication of research results, benefits and impacts, and recommendations for extension of research results is essential to exemplify the myriad activities at the REC. Diverse methods of communicating will be explored and implemented. This Strategic Direction identified goals to improve and expand research opportunities at WSREC.

## Goals

1. Improve research technical capacity
2. Raise awareness of WSREC through comprehensive outreach and communications programs to showcase agricultural research practices
3. Attract new researchers

## Intended Outcomes

- Enhanced technical support provided to researchers at the REC to enhance capabilities in design, data collection and analyses
- Farm equipment and infrastructure improvements made to better facilitate expanded research to support changes in crops being grown, changes in crop production and management systems, and environmental challenges
- Staff training enhanced to better provide a higher technical level of support for projects
- Through improved communication efforts by WSREC, stakeholder interest engaged on important research activities and output, including e-mail and web-based outreach for WSREC events and information updates, improved use of web and social networking, and improved web-based accessibility to research reports and researcher contact information

# STRATEGIC DIRECTION #2

## Goal 1: Improve research technical capacity

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
1A. Improve capabilities to provide research assistance for project design, data collection and analyses, e.g., staff research associate	Center Director, researchers* and new collaborators	<ul style="list-style-type: none"> <li>Additional staffing</li> </ul>
1B. Develop capacity (including training staff) for securing high-tech monitoring including remote access to project data loggers and other equipment	Center Director, researchers and new collaborators	<ul style="list-style-type: none"> <li>Trained staff</li> <li>Secured high-tech monitoring equipment</li> </ul>

## Goal 2: Raise visibility and awareness of WSREC through comprehensive outreach and communications programs to showcase agricultural research practices

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
2A. Develop and review a strategic communication plan to raise awareness about WSREC activities to an expanded audience of elected officials, UCCE constituents, local residents	Center Director, UCANR Strategic Communications Director, key staff, WSAG, RAC	<ul style="list-style-type: none"> <li>Strategic communications plan</li> </ul>
2B. Host collaborative workshops/meetings/forums with partners to highlight current research and future research opportunities for stakeholders	UCCE academics, Center Director, relevant partners	<ul style="list-style-type: none"> <li>Number of events or electronic delivery of work and opportunities</li> </ul>
2C. Partner with commodity and academic groups to collaborate on and/or communicate REC outreach and extension activities	Center Director, key staff, academic groups and advisory committee	<ul style="list-style-type: none"> <li>Number of instances of collaborative activities</li> </ul>

\* Researchers include UCCE specialists and advisors, AES faculty and other non-UC ANR academics

### Goal 3: Attract new researchers

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
3A. Develop marketing plan to promote site as an outstanding research environment for water-related topics	Center Director, WSAG, RAC	<ul style="list-style-type: none"> <li>Marketing plan developed and implemented</li> </ul>
3B. Target new/early career academics to conduct work at the center	Center Director, RAC, key advisors	<ul style="list-style-type: none"> <li>Number of projects from new/early career researchers</li> </ul>
3C. Recruit multi-state or national cooperators to conduct water-related research	Center Director, RAC, key advisors	<ul style="list-style-type: none"> <li>Multi-state or national projects</li> </ul>

STRATEGIC DIRECTION  
#3



Enhance infrastructure, facilities and staff at WSREC to further research and extension activities



Replacing or improving aging infrastructure in the form of office and storage spaces, available laboratories and work areas, and adequacy of electrical and communication/information technology (IT) capabilities affords opportunities to attract new researchers to WSREC and to meet future research and outreach needs. Improvements to existing facilities are needed to provide a diagnostic laboratory, basic soil and water laboratory, and greenhouse project capabilities. Reorganizing and repurposing spaces in current buildings, dry

laboratory spaces and work and storage areas will meet some future needs. Additionally, upgraded internet connectivity is vital in order to support researchers currently at the center and to encourage placement of academic positions at the REC. Expanding staff to support research and extension needs will be an important part of the WSREC's future success. This Strategic Direction emphasizes enhancing infrastructure, facilities and staff to further improve research and extension at the Center.

## Goals

1. Improve office and storage space, IT, and housing for researchers and students
2. Improve laboratory, greenhouse and soil and plant sample handling resources
3. Develop staffing plan to support research and extension activities

## Intended Outcomes

- Office space, laboratory, storage and other work spaces upgraded adequately to support high-caliber research
- Internet capabilities upgraded, resulting in greater reliability for e-mail, online instruction and other uses in research and outreach
- Diagnostic laboratory space, basic soils laboratory space and work areas developed to support more researchers and local grower needs
- More equipment storage areas provided to researchers to secure their equipment and supplies for ongoing research at the WSREC
- Staff support meets the needs of the WSREC research and extension activities

# STRATEGIC DIRECTION #3

## Goal 1: Improve office and storage space, IT, and housing for researchers and students

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
1A. Develop annual review process to identify needs and better allocate expanded office space, labs and lockable equipment storage for researchers	Center Director, WSAG, and RAC	<ul style="list-style-type: none"> <li>New process implemented for providing adequate office, lab and storage space for researchers</li> </ul>
1B. Work with ANR Information Technology (IT) to develop a long-term IT plan to support research and outreach demands	Center Director, UC ANR IT	<ul style="list-style-type: none"> <li>Plan for enhancing local and IT support for research and extension activities</li> </ul>
1C. Convert some of the existing housing to provide additional dorm space for students and researchers	Center Director, UC ANR Director of Facilities	<ul style="list-style-type: none"> <li>Adequate student and researcher dorm space</li> </ul>

## Goal 2: Improve laboratory, greenhouse and soil and plant sample handling resources.

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
2A. Conduct needs assessment to determine lab and greenhouse requirements for the on-site and visiting researchers	Center Director, researchers, RAC	<ul style="list-style-type: none"> <li>Needs assessment conducted</li> </ul>
2B. Identify new funding sources to provide adequate lab and greenhouse space and equipment	Center Director, UCANR Development Services, UCCE, WSAG	<ul style="list-style-type: none"> <li>Funding sources secured for labs, greenhouses and equipment</li> </ul>
2C. Repurpose existing spaces or complete new construction to provide suitable laboratory and greenhouse space and equipment for research support	Center Director, researchers, UCANR Director of Facilities, WSAG	<ul style="list-style-type: none"> <li>New laboratory work spaces and greenhouse storage and dirty workspace provided</li> </ul>

### Goal 3: Develop staffing plan to support research and extension activities

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
3A. Survey current and prospective researchers to assess ongoing and future staff needs	Center Director, Superintendent, key staff	<ul style="list-style-type: none"> <li>• Survey results</li> </ul>
3B. Assess current staff capacity within existing resources and in relation to anticipated future needs including succession planning	Center Director, Superintendent, key staff	<ul style="list-style-type: none"> <li>• Staffing plan documented and implemented</li> </ul>
3C. Develop funding model for increasing staff support, including exploring enhanced collaborations	Center Director, Superintendent, key staff	<ul style="list-style-type: none"> <li>• Budget for staffing plan developed and approved</li> </ul>

# STRATEGIC DIRECTION #4

Expand public and private partnerships



Opportunities exist and should be pursued to enhance research support and partnerships with public agencies and private groups. The Research Advisory Committee (RAC) and the new West Side Advisory Group (WSAG—refer to Strategic Direction #1, Goal #1, page 10) will help REC staff to better identify opportunities for additional funding, in-kind support and expanded information transfer in collaboration with industry and commodity groups. Research capabilities and outreach activities will

continue to evolve and WSREC will need to adapt to most effectively provide staff support, equipment, and the right sites in a cost-effective manner. A vital step in securing and enhancing such partnerships will be to communicate research accomplishments and improve ways to provide science-based information to benefit stakeholders. This Strategic Direction addresses the importance of increasing public and private partnerships.

## Goals

1. Increase industry and grower engagement in addressing local issues
2. Increase cooperation with industry to explore and fund research at WSREC

## Intended Outcomes

- Engaged, committed stakeholder advisory group convened to assist in identifying research needs and means to accomplish research goals
- Opportunities identified for partnerships and funding to expand resources to meet research needs
- Outreach activities improved and expanded to better reach commodity groups, government agencies, growers and consultants

## Goal 1: Increase industry and grower engagement in addressing local issues

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
1A. Conduct regular WSAG subcommittee meetings to improve engagement with industry and growers	Center Director, WSAG, industry and growers, Westlands Irrigation District	<ul style="list-style-type: none"> <li>Number of meetings</li> </ul>
1B. Host relevant, targeted, timely symposia and workshops or training opportunities for commodity, industry and research groups	Center Director, researchers, WSAG	<ul style="list-style-type: none"> <li>Workshops, symposia, training opportunities</li> </ul>
1C. Support and encourage researchers to increase connections with growers and other stakeholders to get involved in research addressing local concerns	Center Director, RAC, stakeholders, growers	<ul style="list-style-type: none"> <li>Number of stakeholders involved in research</li> </ul>

## Goal 2: Increase cooperation with industry to explore and fund research at WSREC

KEY ACTIONS	IMPLEMENTATION RESPONSIBILITY	DELIVERABLES
2A. Identify partners to fund targeted research projects and communicate possibilities to interested researchers for development of projects	Center Director, RAC, researchers, WSAG	<ul style="list-style-type: none"> <li>Number of new funding partners</li> </ul>
2B. Highlight localized research opportunities to partner with growers and industry and leverage funding for specific projects	Center Director, partners, WSAG, UC ANR Development Services	<ul style="list-style-type: none"> <li>Agreements with growers and industry to fund specific projects</li> </ul>

## UC ANR West Side

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