

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Sustainable Natural Ecosystems

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	2%		5%	
102	Soil, Plant, Water, Nutrient Relationships	4%		15%	
111	Conservation and Efficient Use of Water	5%		4%	
112	Watershed Protection and Management	3%		3%	
121	Management of Range Resources	17%		4%	
122	Management and Control of Forest and Range Fires	6%		1%	
123	Management and Sustainability of Forest Resources	20%		2%	
131	Alternative Uses of Land	6%		3%	
132	Weather and Climate	1%		7%	
133	Pollution Prevention and Mitigation	3%		7%	
135	Aquatic and Terrestrial Wildlife	10%		5%	
136	Conservation of Biological Diversity	9%		11%	
141	Air Resource Protection and Management	6%		4%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	1%		3%	
212	Pathogens and Nematodes Affecting Plants	0%		4%	
305	Animal Physiological Processes	0%		4%	
311	Animal Diseases	0%		3%	
605	Natural Resource and Environmental Economics	4%		7%	
610	Domestic Policy Analysis	1%		6%	
723	Hazards to Human Health and Safety	2%		2%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	29.4	0.0	73.5	0.0
Actual Paid Professional	28.4	0.0	80.1	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
577522	0	1240714	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
577522	0	1240714	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
60450487	0	60450487	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

UC ANR's integrated research and extension activities conducted research projects, workshops, education classes and demonstrations, as well as one-on-one interventions. In addition, the programs use PSAs, newsletters, mass media, web sites and collaborations with other agencies and organizations to create and deliver programs.

2. Brief description of the target audience

- Farmers
- Ranchers
- Inland fishery owners/operators
- Governmental agencies
- Agricultural and fishing organizations
- Owners/managers of private and public rangeland, forest and wildlands
- Community organizations
- Resource managers

3. How was eXtension used?

UC ANR academics used eXtension to participate in and contribute to Communities fo Practice, to answer "Ask an Expert" questions, and for other networking purposes. The Division looks forward to the re-invention into a system of greater value to California Extension. The Division looks forward to the re-invention into a system of greater value to California Extension.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	36698	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	32	333	365

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Classes/Short Courses Conducted

Year	Actual
2013	33

Output #2

Output Measure

- Workshops Conducted

Year	Actual
2013	22

Output #3

Output Measure

- Demonstrations and Field Days Conducted

Year	Actual
2013	4

Output #4

Output Measure

- Newsletters Produced

Year	Actual
2013	5

Output #5

Output Measure

- Web Sites Created or Updated

Year	Actual
2013	5

Output #6

Output Measure

- Research Projects Conducted

Year	Actual
2013	148

Output #7

Output Measure

- Videos, Slide Sets and Other AV or Digital Media Educational Products Created

Year	Actual
2013	9

Output #8

Output Measure

- Manuals and Other Printed Instructional Materials Produced

Year	Actual
2013	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Governmental agencies, agricultural and fishing organizations, resource managers and other stakeholders in inland fishery management issues, participating in the programs, will gain knowledge of strategies and techniques for sustainable use of inland fishery resources.
2	Farm, ranch, private and public forest and wildlands owners/mangers, participating in natural resource management programs, will gain knowledge of strategies and techniques for sustainable use of natural resources.
3	Fire protection and land management agencies, land and home owners, community organizations, and landscape professionals, participating in wildland fire education programs, will gain knowledge on how to increase fire resistance of homes and landscaping.
4	Farm, ranch, and landscape owners/managers and allied industry professionals and governmental agency representatives, participating in air quality education programs, will gain knowledge of the atmospheric system and/or how policies, products, plants, and practices can help improve air quality.
5	Ranch and private and public rangeland owners/managers, participating in rangeland management programs, will gain knowledge of recommended techniques for rangeland monitoring and management, and grazing and browsing.
6	Ranch and private and public rangeland owners/managers, participating in the programs, will adopt recommended techniques for rangeland monitoring and management, and grazing and browsing.
7	Farm owners/operators, participating in soil quality education programs, gained knowledge of soil conditions and management practices to improve soil health.
8	Forest landowners take action on forest land succession planning.
9	Los Angeles County adopts an Oak Conservation Plan for improved oak woodland conservation and management.

Outcome #1

1. Outcome Measures

Governmental agencies, agricultural and fishing organizations, resource managers and other stakeholders in inland fishery management issues, participating in the programs, will gain knowledge of strategies and techniques for sustainable use of inland fishery resources.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Farm, ranch, private and public forest and wildlands owners/mangers, participating in natural resource management programs, will gain knowledge of strategies and techniques for sustainable use of natural resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	192

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #3

1. Outcome Measures

Fire protection and land management agencies, land and home owners, community organizations, and landscape professionals, participating in wildland fire education programs, will gain knowledge on how to increase fire resistance of homes and landscaping.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Farm, ranch, and landscape owners/managers and allied industry professionals and governmental agency representatives, participating in air quality education programs, will gain knowledge of the atmospheric system and/or how policies, products, plants, and practices can help improve air quality.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Ranch and private and public rangeland owners/managers, participating in rangeland management programs, will gain knowledge of recommended techniques for rangeland monitoring and management, and grazing and browsing.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	113

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources

Outcome #6

1. Outcome Measures

Ranch and private and public rangeland owners/managers, participating in the programs, will adopt recommended techniques for rangeland monitoring and management, and grazing and browsing.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Farm owners/operators, participating in soil quality education programs, gained knowledge of soil conditions and management practices to improve soil health.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	200

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
---------	----------------

- 101 Appraisal of Soil Resources
- 102 Soil, Plant, Water, Nutrient Relationships

Outcome #8

1. Outcome Measures

Forest landowners take action on forest land succession planning.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

California has 16 million acres of commercial forest land, and another 10 million acres of oak woodlands. Much of this land is owned by private landowners (50% of forest land, 80% of woodlands). There is the need to develop management plans for private lands that take a systematic approach to sustainable strategies in order to realize the economic, environmental and cultural goals of the landowners. Given forestland management decisions are implemented over a long time span, often exceeding an individual's lifetime, estate planning is critical to ensure the long-term duration of forest management goals.

What has been done

A collaboration of UCCE specialists and advisors worked together to develop an online e-learning module for forest landowners in 3 pilot counties. The e-learning site had 1,200 visits since launched, with an average length of 14 minutes per visit. Six sessions of a "Brown Bag Webinar Series on Forest Science" were conducted. Also, a series of workshops on estate planning for forest owners were presented, to address the financial, legal, and emotional dimensions.

Results

50 forest landowners initiated estate planning and successional planning with heirs. Whether the property is to stay in the family, be given protection in a conservation easement, or another agreed-to outcome, family communication is critical. Good estate planning can save heirs thousands of dollars and may prevent the selling of parcels or heavy logging to pay estate taxes. This is particularly true in California, where land values are high and many forest landowners are land rich and cash poor.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics

Outcome #9

1. Outcome Measures

Los Angeles County adopts an Oak Conservation Plan for improved oak woodland conservation and management.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

California has 10 million acres of oak woodlands or hardwood rangelands. In addition to oak woodland conservation in wildlands, it is also important to manage oaks in the urban landscape. Los Angeles County has 28 species and subspecies of oaks, and approximately 10 million residents. Goldspotted oak borer (GSOB) *Agrilus auroguttatus*, an invasive pest, is a growing threat to oaks. GSOB has contributed to on-going oak tree mortality occurring on federal, state, private, and local Native American lands in Southern California. Widespread oak mortality can have severe implications to the environment and human safety.

What has been done

UCCE educated County Supervisors and their staff about the oak resource, its value, sensitivities and resilience, and the current risks and conservation problems. A CE Specialist coauthored the Oak Conservation Plan for Los Angeles County, including a report on valuing oaks in land development. The information was presented to the Board of Supervisors. They held 4 public meetings on the Plan. A lot of outreach and education was done to develop consensus between building industry and environmentalists. The value of oaks in land development is to be published in 2013-2014.

Results

The collaborative group of ecologists and resource managers overcame long-term resistance by both land developers and conservation groups, to successfully work with the county to manage

this resource. The adoption of the conservation plan required both groups to change their attitudes and behavior about oaks during land development.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

UC ANR's quantitative outcomes recorded from the evaluation studies are reported under the State Defined Outcomes section.

Key Items of Evaluation

The Report Overview's federal Planned Program summary of accomplishments highlights UC ANR's most significant work during FY 2013, especially the research developments.