

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Water Quality, Quantity and Security

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
102	Soil, Plant, Water, Nutrient Relationships	5%		16%	
103	Management of Saline and Sodic Soils and Salinity	6%		1%	
111	Conservation and Efficient Use of Water	32%		14%	
112	Watershed Protection and Management	25%		13%	
121	Management of Range Resources	1%		0%	
123	Management and Sustainability of Forest Resources	0%		2%	
124	Urban Forestry	1%		0%	
131	Alternative Uses of Land	0%		2%	
132	Weather and Climate	2%		4%	
133	Pollution Prevention and Mitigation	20%		5%	
135	Aquatic and Terrestrial Wildlife	0%		4%	
201	Plant Genome, Genetics, and Genetic Mechanisms	0%		21%	
205	Plant Management Systems	1%		4%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	3%		0%	
403	Waste Disposal, Recycling, and Reuse	2%		2%	
404	Instrumentation and Control Systems	0%		1%	
405	Drainage and Irrigation Systems and Facilities	2%		1%	
501	New and Improved Food Processing Technologies	0%		6%	
605	Natural Resource and Environmental Economics	0%		1%	
723	Hazards to Human Health and Safety	0%		3%	
	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	23.3	0.0	13.0	0.0
Actual Paid Professional	22.0	0.0	11.7	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
446773	0	119727	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
446773	0	119727	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
8829846	0	8829846	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

- Governmental agencies
- Water managers
- UC campus-based water centers
- The general public
- Farmers
- Ranchers
- Agricultural organizations
- Owners/managers of private and public rangeland, forest and wildlands

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. The Division looks forward to the re-

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V(E). Planned Program (Outputs)

1. Standard output measures

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

Patent Applications Submitted

Year: 2013
 Actual: 1

Patents listed

- 1. IN SITU SOIL NITRATE SENSOR

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	7	55	62

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Classes/Short Courses Conducted

Year Actual
 2013 3

Output #2

Output Measure

- Workshops Conducted

Year Actual
 2013 13

Output #3

Output Measure

- Demonstrations and Field Days Conducted

Year	Actual
2013	4

Output #4

Output Measure

- Newsletters Produced

Year	Actual
2013	1

Output #5

Output Measure

- Web Sites Created or Updated

Year	Actual
2013	2

Output #6

Output Measure

- Research Projects Conducted

Year	Actual
2013	29

Output #7

Output Measure

- Videos, Slide Sets and Other AV or Digital Media Educational Products Created
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- Manuals and Other Printed Instructional Materials Produced

Year	Actual
2013	2

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Farm, ranch, and rangeland owners/managers and allied industry professionals, participating in water quality education programs, will gain knowledge of best management practices for improving water quality.
2	Farm, ranch, and rangeland owners/managers and allied industry professionals, participating in water quality education programs, will adopt best management practices for improving water quality.
3	Farm owner/operators, allied industry professionals, and members of the public, participating in water conservation education programs, will gain knowledge of water use and conservation practices.
4	Farm, ranch, and landscape owners/managers, and allied industry professionals and governmental agency representatives, participating in the programs, will gain water conservation skills.
5	Farm owners/managers, allied industry and natural resource professionals, and members of the public, participating in the programs, will adopt of water conservation practices.
6	Landscape owner/operators and managers, allied nursery industry professionals, public agency representatives, and members of the public, participating in water quality education programs, gained knowledge of recommended management practices for preserving water quality.
7	Landscape owner/opertors and managers, and members of the public, participating in water conservation education programs, gained knowledge of water use and conservation practices.
8	Landscape owner/operators and managers and allied industry professionals, participating in water management education programs, gained water conservation skills.
9	Farm owner/operators and managers, and allied industry professionals, participating in agriculture education programs, gained knowledge of irrigation and water management practices.

Outcome #1

1. Outcome Measures

Farm, ranch, and rangeland owners/managers and allied industry professionals, participating in water quality education programs, will gain knowledge of best management practices for improving water quality.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Farm, ranch, and rangeland owners/managers and allied industry professionals, participating in water quality education programs, will adopt best management practices for improving water quality.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Farm owner/operators, allied industry professionals, and members of the public, participating in water conservation education programs, will gain knowledge of water use and conservation practices.

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 the programs, will gain water conservation skills.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Farm owners/managers, allied industry and natural resource professionals, and members of the public, participating in the programs, will adopt of water conservation practices.

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)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

Outcome #6

1. Outcome Measures

Landscape owner/operators and managers, allied nursery industry professionals, public agency representatives, and members of the public, participating in water quality education programs, gained knowledge of recommended management practices for preserving water quality.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	407

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management

Outcome #7

1. Outcome Measures

Landscape owner/operators and managers, and members of the public, participating in water conservation education programs, gained knowledge of water use and conservation practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	72

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #8

1. Outcome Measures

Landscape owner/operators and managers and allied industry professionals, participating in water management education programs, gained water conservation skills.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	47

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #9

1. Outcome Measures

Farm owner/operators and managers, and allied industry professionals, participating in agriculture education programs, gained knowledge of irrigation and water management practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	106

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

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.