

Natural Resource Systems and the Environment

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Natural Resource Systems and the Environment

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	10%		10%	
121	Management of Range Resources	20%		20%	
122	Management and Control of Forest and Range Fires	5%		5%	
123	Management and Sustainability of Forest Resources	20%		20%	
125	Agroforestry	5%		5%	
134	Outdoor Recreation	5%		5%	
135	Aquatic and Terrestrial Wildlife	10%		10%	
136	Conservation of Biological Diversity	5%		5%	
141	Air Resource Protection and Management	10%		10%	
605	Natural Resource and Environmental Economics	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	13.0	0.0	5.1	0.0
Actual	3.5	0.0	6.8	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 38394	1890 Extension	Hatch 80822	Evans-Allen
	0		0
1862 Matching 50182	1890 Matching	1862 Matching	1890 Matching
	0	80822	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1842902	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Work will be undertaken that attempts to identify principles and practices that maximize the overall benefits from range and forest use/nonuse. Additional research will be undertaken that focuses on air quality—both protection and management of said resource. Finally, economic studies involving environmental issues, primarily management of natural resources, will be continued in order to identify potential economic strategies that will enhance the quality of life and maintain viable environments.

Extension will outreach to livestock producers, general public including youth, private land forest owners, agency personnel, special interest groups and green industry professionals to:

1. Conduct projects consultations, and workshops focusing on the role of outdoor recreation and natural resource-based tourism in relation to community development.
2. Provide information, resources, research, and expertise related to the development of outdoor recreation and natural resources-based tourism opportunities to assist in the diversification of local economies, especially in rural Utah.
3. Partner with others in education and use of resources to rehabilitate the sagebrush steppe environment.
4. Educate and partner to enable the recovery of the sage grouse, pygmy rabbit and others to avoid listing as endangered species.
5. Continue to facilitate and assist the establishment and success of local Conservation Resource Management (CRM) groups, for more local control of decisions on natural resources.
6. Educate the public with respect to the principle causes of air pollution and their role in prevention.
7. Partner with others to enable agriculture producers to meet the requirements of the EPA.
8. Provide training in practical weed inventory and mapping techniques to state and federal land managers.
9. Establish herbicide demonstration/research plots to evaluate the efficacy of these products under local conditions.
10. Determine management options that slows or stops the cycle of cheatgrass and fire on previously burned areas through range rehabilitation, seeding programs and nontraditional approaches to grazing management.
11. Educate producers and agency personnel on the need for continued range evaluation, monitoring, and management improvements and the role of grazing management in sustainable resource management.
12. Educate the public on responsible use and the value of multiple uses on rangelands.
13. Demonstrate the need for controlled logging, thinning and cleaning of some forests to reduce the fire danger and enhance the re-establishment of aspen groves.
14. Illustrate the need for management and control of pinion-juniper forests to restore watershed, wildlife habitat and forage values on rangelands.
15. Educate landowners on how to have timber harvested from their lands in a manner that increases their income while maintaining or enhancing the forest resource.
16. Provide information to landowners and users on grazing management of graze able woodlands.
17. Provide information on how to manage these areas to reduce or control the invasion of harmful insects and invasive weeds from public forests into their private forest lands.
18. Partner with and educate city foresters, green industry professionals, and citizens on health and management trees in urban settings.
19. Partner with and educate livestock producers and agency personnel on the identification and methods of control of the specific noxious and invasive species.
20. Educate developers, home owners, small acreage owners, outdoor recreationists, youth, and others interested in public lands on their critical role in preventing, reporting, and even helping to control these plants.
21. Emphasize the strategic elements of early detection and rapid response as outlined in the most recent National Invasive Species Management Plan.

2. Brief description of the target audience

The target audience includes the general public (including youth), users of various environments (agricultural producers, extractive industry representatives, environmentalists, recreationists, green industry professionals, etc.), small acreage owners, private forest owners, federal and state government officials, extension agricultural agents, and other academics and resource managers.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	25800	17473	13000	8804
2007	10051	182993	10445	13324

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

Patent Applications Submitted

Year Target

Plan: 0

2007: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	58	58

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of peer-reviewed journal articles and books/chapters in books extensively peer reviewed.

Year	Target	Actual
2007	50	58

Output #2

Output Measure

Number of intermediate publications and presentations (e.g., refereed proceedings).

Year	Target	Actual
2007	8	70

Output #3

Output Measure

Level of contract/grant funding.

Year	Target	Actual
2007	50000	96278

Output #4

Output Measure

Number of graduate students or post-doctorate's trained.

Year	Target	Actual
2007	2	15

Output #5

Output Measure

Number of undergraduate students involved in research.

Year	Target	Actual
2007	2	8

Output #6

Output Measure

Number of theses/dissertations completed.

Year	Target	Actual
2007	3	6

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of program participants who gain knowledge on natural resource systems and the environment.
2	Number of program participants who implement positive natural resource systems and the environmental practices.
3	Percent of permitted acres maintained at appropriate land conditions and water and air standards.

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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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

Competing Programmatic Challenges

Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

After Only (post program)

Retrospective (post program)

Before-After (before and after program)

During (during program)

Time series (multiple points before and after program)

Case Study

Comparisons between program participants (individuals, group, organizations) and non-participants

Comparison between locales where the program operates and sites without program intervention

Evaluation Results

Key Items of Evaluation