

Environmental and Water Quality Impacts

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Environmental and Water Quality Impacts

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	0%	0%	6%	
102	Soil, Plant, Water, Nutrient Relationships	0%	0%	22%	
104	Protect Soil from Harmful Effects of Natural Elements	0%	0%	1%	
111	Conservation and Efficient Use of Water	0%	0%	1%	
112	Watershed Protection and Management	0%	0%	17%	
123	Management and Sustainability of Forest Resources	0%	0%	4%	
131	Alternative Uses of Land	0%	0%	6%	
132	Weather and Climate	0%	0%	4%	
133	Pollution Prevention and Mitigation	0%	0%	16%	
135	Aquatic and Terrestrial Wildlife	0%	0%	2%	
205	Plant Management Systems	0%	0%	1%	
403	Waste Disposal, Recycling, and Reuse	0%	0%	8%	
601	Economics of Agricultural Production and Farm Management	0%	0%	1%	
603	Market Economics	0%	0%	1%	
604	Marketing and Distribution Practices	0%	0%	2%	
605	Natural Resource and Environmental Economics	0%	0%	6%	
901	Program and Project Design, and Statistics	0%	0%	2%	
	Total	0%	0%	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	0.0	0.0	30.0	0.0
Actual	0.0	0.0	40.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 0	1890 Extension 0	Hatch 1354482	Evans-Allen 0
1862 Matching 0	1890 Matching 0	1862 Matching 2158471	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 631756	1890 All Other 0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Our research impacted the areas of reservoir management, hardwood restoration, fate and transport of pollutants in soil, livestock impact on watersheds, non-intrusive subsurface soil mapping, soil erosion prevention, watershed water quality protection approaches, enhanced rainfall data, mineralization of compounds in soil, urban planning, subsurface contamination, and the use of laser-induced breakdown spectroscopy in soils research.

2. Brief description of the target audience

Audiences for this research include the general public, government and industry managers, cooperating scientists, municipal planners, the construction industry, and many others.

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	0	0	0	0
2007	0	0	0	0

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	16	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Internet management tool for nitrogen-fertilization decisions on corn to allow a direct evaluation of fertilization strategies (Tyler).

Year	Target	Actual
2007	{No Data Entered}	0

V(G). State Defined Outcomes

O No.	Outcome Name
1	Approximate RUSLE2 modeling software runs (per day) for conservation planning, new USDA programs, construction site erosion, and other natural resource conservation issues (e.g., nutrient management planning, carbon sequestration).
2	Reservoir and bottomland management
3	Mass transport and contaminant persistence in soil
4	Baseline environmental data for dairy operations
5	Moderating urban sprawl
6	Persistence and ecological impact of herbicides
7	Subsurface sewage disposal

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

Public Policy changes
Competing Public priorities

Brief Explanation

Perhaps more than other planned programs, environmental and water quality research is affected by public outcry and governmental regulation and directives.

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

1. Evaluation Studies Planned

Before-After (before and after program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}