

# Soil and Water Quality

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## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Soil and Water Quality

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
133	Pollution Prevention and Mitigation			100%	
	<b>Total</b>			100%	

## V(C). Planned Program (Inputs)

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

Year: 2008	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.0	0.0	5.0	0.0
<b>Actual</b>	0.0	0.0	5.2	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
	0	68367	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	1258532	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	286939	0

**V(D). Planned Program (Activity)****1. Brief description of the Activity**

As in the previous report, the expected outputs are scientific publications, newsletters, and fact sheets; talks and interviews; and numbers of state residents served directly by analyzing soil samples or identifying invasive aquatic weeds. These activities, services, or events are designed to disseminate new information to stakeholders and to seek their input on the research program and findings. Interactions with members of lake associations in group discussion and workshops are particularly important because stakeholders in towns or communities must agree on how to remove aquatic weeds from lakes. Options are limited to herbicide treatment and mechanical methods, which can vary in effectiveness depending on the extent of invasive weed infestations. Diagnostic services are available to determine the extent of pollution problems and to determine the success of field experiments. Information will also be made available to all stakeholders on the CAES website, in newsletters and fact sheets, and in displays at the open houses or at agricultural fairs. It is also expected that there will be interest from reporters to write articles on the research, thereby enhancing awareness of pollution problems. Results of these output activities will lead to specific outcomes, such as removing pesticides from soil and water, clearing lakes and ponds of invasive aquatic plants, and preventing pollution.

**2. Brief description of the target audience**

A broad base of stakeholders, including under-represented and under-served persons, is targeted. It is expected that the following stakeholder groups will directly benefit from the research: farmers, lake associations, boaters, homeowners, water company officials, environmentalists, extension specialists, corporate and municipal officials, and pesticide producers. Special efforts will be made to contact and include members of minority organizations, women, and children to provide information and to participate in open house events.

**V(E). Planned Program (Outputs)****1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	1000	500	75	50
2008	2721	95322	275	19049

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

<b>Year</b>	<b>Target</b>
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<b>Plan:</b>	0
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2008:	0
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**Patents listed****3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>	0	2	
2008	0	3	3

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

Total research papers

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	2	7

**Output #2**

**Output Measure**

# of talks and interviews given to stakeholders

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	30	119

**Output #3**

**Output Measure**

# of diagnostic tests performed

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	1000	5291

**V(G). State Defined Outcomes**

<b>O No.</b>	<b>Outcome Name</b>
1	# of homeowners gaining knowledge on pesticide pollution and invasive aquatic plants
2	# of homeowners gaining knowledge on soil and water quality
3	# of lakes and ponds surveyed and/or cleared of invasive aquatic plants

**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**

Economy

Appropriations changes

Other (Unexpected changes in workforce)

**Brief Explanation**

There were no external factors that affected outcomes.

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

**1. Evaluation Studies Planned**

Before-After (before and after program)

During (during program)

**Evaluation Results**

“Before and after” and “during” evaluations were conducted to document increased knowledge of aquatic plants, whereas “during” evaluations were most helpful in assessing advanced knowledge of stakeholders on soil and water quality issues. Of the 62 persons trained on identifying aquatic weeds in workshops, 100% replied in writing on evaluation forms that the new knowledge they gained was very useful.

**Key Items of Evaluation**

Written information on survey forms following workshops (on-site) and verbal feedback from interviews with volunteers and other stakeholders (unstructured) were important information collection methods for program assessments. The Science Citation Index verified that 74 published articles written by 4 scientists over 28 years on the general topic of soil and water quality, were being cited by scientists in other institutions (total cumulative citations = 2,827).