

Environmental Science Education

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Environmental Science Education

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
135	Aquatic and Terrestrial Wildlife	20%		0%	
136	Conservation of Biological Diversity	20%		0%	
903	Communication, Education, and Information Delivery	60%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	4.4	0.0	0.0	0.0
Actual	3.9	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 30047	1890 Extension	Hatch	Evans-Allen
	0	0	0
1862 Matching 165435	1890 Matching	1862 Matching	1890 Matching
	0	0	0
1862 All Other 73355	1890 All Other	1862 All Other	1890 All Other
	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The 2007 program year was UMN Extension's second year of implementing the Minnesota Master Naturalist program. In its second year, the program mobilized 135 new volunteers who contributed over 5,055 volunteer hours in the areas of: 1) natural resource management; 2) supporting nature-based centers; 3) engagement in natural science research program; and, 4) development of educational interpretive programs. The value of this volunteer service, according to IndependentSector.org is \$191,877.54. The number of acres affected by these volunteers was 57,181, and Minnesota Master Naturalists have provided educational programming to over 40,000 citizens.

Programming for Native American youth on the White Earth Reservation will expand in the future as a result of grantsmanship in 2007. The National Science Foundation has invested \$899,183 for the program through 2010.

2. Brief description of the target audience

Environmental Science Education programs reach:

- concerned citizens and volunteers who are willing to be trained and serve in a variety of roles as citizen teachers and scientists.
- Minnesota professionals from within Extension, the Minnesota Department of Natural Resources, Soil and Water Conservation Districts, US Fish and Wildlife Services, Health and Human Services Departments, Environmental Sciences, the public schools and others involved in environmental science education programs.
- Youth on the White Earth Reservation in Northwest Minnesota.

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	650	3000	200	4500
2007	560	4317	445	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	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Through training and other communications, volunteers, educators and natural resource professionals will be prepared to deliver research-based environmental science education programs. (Measure expressed as number of Master Naturalists trained and supported.)

Year	Target	Actual
2007	265	249

Output #2

Output Measure

White Earth Reservation youth will graduate from a four week summer program that includes environmental science education. (Target expressed as a percentage of students graduating.)

Year	Target	Actual
2007	75	85

Output #3

Output Measure

Recruitment strategies for Environmental Science Education programs for adults will reach under-represented audiences. (Target expressed as a percentage of total audiences served.)

Year	Target	Actual
2007	10	15

Output #4

Output Measure

All ESE modules and trainings will be developed, tested and finalized. (Target expressed as number of modules and trainings completed that year.)

Year	Target	Actual
2007	1	1

V(G). State Defined Outcomes

O No.	Outcome Name
1	Within a year of environmental science education instructor training (i.e., Master Naturalist and Best Practices for Field Day Trainings), educators and community-based instructors will use the research-based educational methods in environmental science education delivery. (Target expressed as a percentage of participants.)
2	Minnesotans will have increased opportunities to participate in natural history learning activities. (Target measure reflects increases in number of events available.)
3	Master Naturalists will become more knowledgeable about natural history. (Measure expressed as a percentage of knowledge gain.)
4	Native American youth will increase their academic performance on standardized achievement tests following the four week ESE program. (Target expressed as a percentage of increase.)

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

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

Brief Explanation

The program continues to reach out to new populations, including offering scholarships to potential Master Naturalists.

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

1. Evaluation Studies Planned

Retrospective (post program)

Before-After (before and after program)

During (during program)

Evaluation Results

Key Items of Evaluation