

# Soil and Water Resource Conservation, Management and Engineering

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

### 1. Name of the Planned Program

Soil and Water Resource Conservation, Management and Engineering

## 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	10%		10%	
102	Soil, Plant, Water, Nutrient Relationships	10%		10%	
111	Conservation and Efficient Use of Water	10%		10%	
112	Watershed Protection and Management	10%		10%	
132	Weather and Climate	10%		10%	
133	Pollution Prevention and Mitigation	10%		10%	
403	Waste Disposal, Recycling, and Reuse	10%		10%	
404	Instrumentation and Control Systems	10%		10%	
405	Drainage and Irrigation Systems and Facilities	10%		10%	
902	Administration of Projects and Programs	10%		10%	
<b>Total</b>		100%		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>	0.5	0.0	6.0	0.0
<b>Actual</b>	0.1	0.0	0.2	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	0	23960	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	183271	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	265604	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

- Conduct Research Experiments.
- Construct Research Facilities.- Monitor and evaluate
- Conduct Workshops, meetings.
- Deliver Services.
- Develop Products, Curriculum, Resources.
- Provide Training.
- Assessments.
- Partnering.

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

The audience includes typical citizens in urban settings through extension outreach, those responsible for agricultural production through extension outreach and workshops, the engineering profession through publication of results in professional journals, and undergraduate and graduate students through presentation of project descriptions and results in a classroom setting.

**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>	200	300	50	100
2008	0	0	0	0

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

**Patent Applications Submitted**

**Year Target**

**Plan: 2**

2008: {No Data Entered}

**Patents listed**

{No Data Entered}

**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	{No Data Entered}	{No Data Entered}	0

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

### **Output Target**

#### **Output #1**

##### **Output Measure**

SCHOLARLY excellence in referred articles, book chapters, and books; participation on professional boards and panels, as well as science panels.

*Not reporting on this Output in this Annual Report*

#### **Output #2**

##### **Output Measure**

EFFECTS ON AND PROTECTION OF ENVIRONMENTAL HEALTH AND ECOLOGY Investigate optimization of water resource utilization within hydrologic and agricultural environments considering the soil-plant-atmosphere continuum. Understand feedbacks between plants, soil hydraulic processes and atmospheric boundary layer development and the partitioning of all components of the diurnal energy balance. Apply recently developed spatial analysis techniques with current meteorological network data available to develop updated maps of reference evapotranspiration over the state of Oregon for water resources planning and hydrologic analysis. Develop a flume facility to demonstrate general river mechanics principles and to test hypotheses regarding the physical response of rivers to management strategies, such as dam removal, stabilizing structures, and environmental flows. Monitor and evaluate the dynamics and variability in fish and benthic macroinvertebrate communities Document natural processes and indicate ecological outcomes of management strategies.

*Not reporting on this Output in this Annual Report*

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

O No.	Outcome Name
1	Informed decision-makers and citizenry Understanding of the interconnectivity of soil and water resources, aquatic species habitat and survival, water resource allocation for multiple urban, environmental, hydroelectric power, industrial and agricultural uses. Revision of Oregon Irrigation Water Requirements guide Inform the citizenry of the state of Oregon, as well as provide scientific assessment tools and resource evaluation for policy makers to base decisions on in the state of Oregon.
2	Informed policy-making and management Informed policy-making and management of landscape and water resources. Extension faculty in cooperation with watershed councils provide outreach on well water quality, crop water use estimates, and irrigation management for improved watershed management.
3	National and international impact as evidenced by the past record of professional publications and the cooperative international programs this group is involved with.

**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**

{No Data Entered}

**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}