V(A). Planned Program (Summary)

Program # 17
1. Name of the Planned Program
4.2 Water Resources Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
<th>% 1862 Extension</th>
<th>% 1890 Extension</th>
<th>% 1862 Research</th>
<th>% 1890 Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>Conservation and Efficient Use of Water</td>
<td>30%</td>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Watershed Protection and Management</td>
<td>70%</td>
<td></td>
<td></td>
<td>93%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

V(C). Planned Program (Inputs)

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

<table>
<thead>
<tr>
<th>Year: 2009</th>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1862</td>
<td>1890</td>
</tr>
<tr>
<td>Plan</td>
<td>4.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Actual</td>
<td>31.9</td>
<td>0.0</td>
</tr>
</tbody>
</table>

2. Institution Name: Cornell University

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

<table>
<thead>
<tr>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td>Hatch</td>
</tr>
<tr>
<td>145431</td>
<td>165936</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>1862 Matching</td>
</tr>
<tr>
<td>145431</td>
<td>165936</td>
</tr>
<tr>
<td>1862 All Other</td>
<td>1890 All Other</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Institution Name: NY State Agricultural Experiment Station

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

<table>
<thead>
<tr>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td>Hatch</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>1890 Matching</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1862 All Other</td>
<td>1890 All Other</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Residents and property owners are targeted with stewardship and water resources protection in their homes and on their properties. Businesses, organizations, and producers are targeted with information about reducing impacts of their operations. Local government and community leaders are targeted with information related to governmental management of water resources, such as land use planning. Environmental planners and managers and technical assistance providers are targeted with in-depth information related to their audiences/constituents. Teachers, youth professionals and volunteers are targeted with in-depth knowledge relevant to youth. Youth of all ages are provided with age and grade appropriate knowledge about water resources; activities to increase stewardship; and information about career opportunities.

V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th>2009</th>
<th>Direct Contacts Adults</th>
<th>Indirect Contacts Adults</th>
<th>Direct Contacts Youth</th>
<th>Indirect Contacts Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>20000</td>
<td>250000</td>
<td>5000</td>
<td>15000</td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Patent Applications Submitted

- Year: 2009
- Plan: 0
- Actual: {No Data Entered}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

<table>
<thead>
<tr>
<th>2009</th>
<th>Extension</th>
<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>0</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Actual</td>
<td>{No Data Entered}</td>
<td>{No Data Entered}</td>
<td>0</td>
</tr>
</tbody>
</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
  Not reporting on this Output for this Annual Report
Output #2

Output Measure

- # non-credit instructional hours directed to this program.
  Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of agricultural/natural resources producers and business representatives completing educational programs on managing water resources. (4.2.1a)
  Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of organization and business representatives completing educational programs on managing water resources. (4.2.2a)
  Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of local government officials and community leaders completing educational programs on managing water resources and the relationship between water resources and land use management. (4.2.3a)
  Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of consumers, residents, and landowners completing educational programs on water resources protection. (4.2.4a)
  Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # of teachers and youth professionals and volunteers completing educational programs on water resources. (4.2.5a)
  Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # of youth completing educational programs on water resources protection. (4.2.6a)
  Not reporting on this Output for this Annual Report
### V(G), State Defined Outcomes

#### V. State Defined Outcomes Table of Content

<table>
<thead>
<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td># of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing water resources. (4.2.1b)</td>
</tr>
<tr>
<td>2</td>
<td># of organization and business representatives who demonstrate knowledge gains about managing water resources. (4.2.2b)</td>
</tr>
<tr>
<td>3</td>
<td># of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management. (4.2.3b)</td>
</tr>
<tr>
<td>4</td>
<td># of consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (4.2.4b)</td>
</tr>
<tr>
<td>5</td>
<td># of teachers and youth professionals and volunteers who demonstrate knowledge gains about water resources protection. (4.2.5b)</td>
</tr>
<tr>
<td>6</td>
<td># of youth who demonstrate knowledge gains about water resources protection. (4.2.6b)</td>
</tr>
<tr>
<td>7</td>
<td># of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.1c)</td>
</tr>
<tr>
<td>8</td>
<td># of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.2c)</td>
</tr>
<tr>
<td>9</td>
<td># of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.3c)</td>
</tr>
<tr>
<td>10</td>
<td># of communities documented to have thoroughly assessed the status of their water resources. (4.2.3d)</td>
</tr>
<tr>
<td>11</td>
<td># of producers, businesses, local governments, organizations, landowners, and individuals that collaborate to develop and implement water resources management strategies. (4.2.3e)</td>
</tr>
<tr>
<td>12</td>
<td># of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4c)</td>
</tr>
<tr>
<td>13</td>
<td># of teachers and youth professionals and volunteers who incorporate water resources management knowledge into curriculum. (4.2.5c)</td>
</tr>
<tr>
<td>14</td>
<td># of youth documented to have modified existing practices and/or adopted new practices to protect/enhance water resources. (4.2.6c)</td>
</tr>
<tr>
<td>15</td>
<td># of youth introduced to variety of environmental and natural resources career options. (4.2.6d)</td>
</tr>
<tr>
<td>16</td>
<td># of agricultural/natural resources producers and business representatives documented to have improved and/or protected water resources. (4.2.1d)</td>
</tr>
<tr>
<td>17</td>
<td>Documented instances in which resource managers credit Implementation of improved water resources management practices for lower costs for remediation. (4.2.2d)</td>
</tr>
<tr>
<td>18</td>
<td># of communities documented to have established or modified land use and development policies to enhance and protect water resources. (4.2.3f)</td>
</tr>
<tr>
<td>19</td>
<td># of youth documented to have chosen water resources-related careers. (4.2.6e)</td>
</tr>
<tr>
<td>20</td>
<td>Documented instances in which resource managers credit improved groundwater and surface water quality, decreased flooding, and/or decreased over-use of water supplies to implementation of improved water resources management practices. (4.2.7a)</td>
</tr>
</tbody>
</table>
Documented instances in which public health officials credit decreased public health risks to implementation of improved water resources management practices. (4.2.7b)

# consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4d)

### Outcome #1

**1. Outcome Measures**

- # of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing water resources. (4.2.1b)

  Not Reporting on this Outcome Measure

### Outcome #2

**1. Outcome Measures**

- # of organization and business representatives who demonstrate knowledge gains about managing water resources. (4.2.2b)

  Not Reporting on this Outcome Measure

### Outcome #3

**1. Outcome Measures**

- # of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management. (4.2.3b)

  Not Reporting on this Outcome Measure

### Outcome #4

**1. Outcome Measures**

- # of consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (4.2.4b)

  Not Reporting on this Outcome Measure

### Outcome #5

**1. Outcome Measures**

- # of teachers and youth professionals and volunteers who demonstrate knowledge gains about water resources protection. (4.2.5b)

  Not Reporting on this Outcome Measure

### Outcome #6

**1. Outcome Measures**

- # of youth who demonstrate knowledge gains about water resources protection. (4.2.6b)

  Not Reporting on this Outcome Measure
Outcome #7
1. Outcome Measures

# of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.1c)

Not Reporting on this Outcome Measure

Outcome #8
1. Outcome Measures

# of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.2c)

Not Reporting on this Outcome Measure

Outcome #9
1. Outcome Measures

# of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.3c)

Not Reporting on this Outcome Measure

Outcome #10
1. Outcome Measures

# of communities documented to have thoroughly assessed the status of their water resources. (4.2.3d)

Not Reporting on this Outcome Measure

Outcome #11
1. Outcome Measures

# of producers, businesses, local governments, organizations, landowners, and individuals that collaborate to develop and implement water resources management strategies. (4.2.3e)

Not Reporting on this Outcome Measure

Outcome #12
1. Outcome Measures

# of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4c)

Not Reporting on this Outcome Measure
Outcome #13

1. Outcome Measures

   # of teachers and youth professionals and volunteers who incorporate water resources management knowledge into curriculum. (4.2.5c)

   Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

   # of youth documented to have modified existing practices and/or adopted new practices to protect/enhance water resources. (4.2.6c)

   Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

   # of youth introduced to variety of environmental and natural resources career options. (4.2.6d)

   Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

   # of agricultural/natural resources producers and business representatives documented to have improved and/or protected water resources. (4.2.1d)

   Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

   Documented instances in which resource managers credit implementation of improved water resources management practices for lower costs for remediation. (4.2.2d)

   Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

   # of communities documented to have established or modified land use and development policies to enhance and protect water resources. (4.2.3f)

   Not Reporting on this Outcome Measure
Outcome #19

1. Outcome Measures

   # of youth documented to have chosen water resources-related careers. (4.2.6e)

   Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

   Documented instances in which resource managers credit improved groundwater and surface water quality, decreased flooding, and/or decreased over-use of water supplies to implementation of improved water resources management practices. (4.2.7a)

   Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

   Documented instances in which public health officials credit decreased public health risks to implementation of improved water resources management practices. (4.2.7b)

   Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

   # consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4d)

   Not Reporting on this Outcome Measure

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

Brief Explanation

See unplanned programs reflecting NIFA priorities.

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

1. Evaluation Studies Planned

   - After Only (post program)
   - Retrospective (post program)
   - During (during program)
   - Case Study
Evaluation Results

See unplanned programs reflecting NIFA priorities.

Key Items of Evaluation

See unplanned programs reflecting NIFA priorities.