4-H Youth Development

V(A). Planned Program (Summary)

1. Name of the Planned Program

4-H Youth Development

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>608</td>
<td>Community Resource Planning and Development</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>806</td>
<td>Youth Development</td>
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<td></td>
<td></td>
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</tr>
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</table>

V(C). Planned Program (Inputs)

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

<table>
<thead>
<tr>
<th>Year: 2007</th>
<th>Extension</th>
<th>Research</th>
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<tbody>
<tr>
<td></td>
<td>1862</td>
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<tr>
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</table>

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

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

1. Brief description of the Activity
4-H Youth Development

Create a pilot-tested, web-based project curriculum which will be widely used in county extension programs. This curriculum will be designed to introduce students to precision agriculture and geospatial technology.

Start precision agriculture and geospatial 4-H project clubs by training 4-H volunteers and teen leaders to utilize the new materials to start precision agriculture project clubs.

Incorporate the precision agriculture curriculum into the Oklahoma Ag in the Classroom program. This curriculum will cover geospatial technologies and agricultural topics such as GPS/GIS, robotics, remote sensing, and precision agriculture.

Recruit Volunteers interested and committed to the concept of developing strong Youth-Adult Partnerships for the benefit of serving the community.

Provide training and materials for initiating and maintaining teams of youth and adults committed to serving the community.

Train and graduate the first class of 4-H Volunteers.

Involv community leaders and other youth serving agencies as instructors/resources during the training process.

Conducted hundreds of animal, crop and environmental youth programs

Conducted hundreds of 4-H clubs and after school programs

2. Brief description of the target audience

Youth (grades 6-8) in 10 pilot counties will test new agricultural technology curriculum.

Youth and adult leaders in 16 counties will conduct environmental impact programming to other 4-H youth and the public.

Youth and adult 4-H mentors and/or other youth serving agencies, and teens, as well as volunteers recruited to work with underserved audiences.

All statewide youth

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

<table>
<thead>
<tr>
<th>Year</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>
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<td>150</td>
<td>425</td>
<td>750</td>
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<td>35000</td>
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2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

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<th>Year</th>
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<tbody>
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<td>Plan</td>
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<td>2007</td>
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Patents listed

3. Publications (Standard General Output Measure)

<table>
<thead>
<tr>
<th>Year</th>
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<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
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</tr>
<tr>
<td>2007</td>
<td>0</td>
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</tr>
</tbody>
</table>
### Output Target

**Output #1**

**Output Measure**
- Web-based pilot curriculum - lessons developed and tested

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**Output #2**

**Output Measure**
- New Geospatial 4-H project clubs with an emphasis on precision agriculture

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
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</table>

**Output #3**

**Output Measure**
- Youth-adult environmental education teams

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>90</td>
<td>16</td>
</tr>
</tbody>
</table>

**Output #4**

**Output Measure**
- Teams of youth and adults interested in and committed to developing strong youth-adult partnerships for serving the community

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>42</td>
<td>21</td>
</tr>
</tbody>
</table>

**Output #5**

**Output Measure**
- Groups subsequently assisted and trained by "graduating" classes of youth community leadership.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
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</tr>
</tbody>
</table>
### V(G). State Defined Outcomes

<table>
<thead>
<tr>
<th>O No.</th>
<th>Outcome Name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Participants interested in pursuing a career in geospatial and precision technologies fields</td>
</tr>
<tr>
<td>2</td>
<td>Number of well-water assessments conducted</td>
</tr>
<tr>
<td>3</td>
<td>Number of well owners beginning voluntary well water testing for bacteria</td>
</tr>
<tr>
<td>4</td>
<td>Number of youth/adults that continue volunteer well-water testing and other environmental monitoring past training</td>
</tr>
<tr>
<td>5</td>
<td>Number of community leadership action plans completed</td>
</tr>
<tr>
<td>6</td>
<td>Number of trained and &quot;graduated&quot; youth and adult volunteers still providing direction tho their communities in elected and/or volunteer roles</td>
</tr>
<tr>
<td>7</td>
<td>Number of people understanding Youth-Adult Partnership and Service Learning and Progressive Leadership Development</td>
</tr>
<tr>
<td>8</td>
<td>Number of 4-H Environmental Stewardship Teams</td>
</tr>
</tbody>
</table>
1. Outcome Measures
Participants interested in pursuing a career in geospatial and precision technologies fields

2. Associated Institution Types
- 1862 Extension

3a. Outcome Type:
Change in Action Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
The estimated market revenue for geospatial technology by the year 2017 is $757 billion. Agriculture was one of the first industries to apply GPS and GIS technology more than 10 years ago, yet less than 11.1% of US farms and agribusinesses utilize this technology that has been demonstrated to increase efficiency and profitability. The geospatial industry expects a 9-14% increase in workforce each year over the next 10 years. This tremendous potential for growth is only restricted by the ability of the educational system to provide the technical expertise and geospatial technology awareness needed by the industry.

These are the reasons the members of the Geospatial Initiative team are working to teach youth about GPS, GIS, precision agriculture, and remote sensing. These technologies will not only help teams of youth and adults work toward community development; they will also help the youth secure future careers.

**What has been done**
Currently 13 county teams have received ESRI software grants worth over a million dollars. The grant recipients are identifying, selecting, and working on community projects. These teams are partnering with a school teacher and/or agency personnel. The youth are learning how they can affect change within a community using geospatial technology. The adults are learning how they can partner with youth and combine the strengths of all to form a better team. These teams are discovering the power of GIS and the numerous career opportunities associated with this technology. Upon completion of these projects, the communities will reap the benefits of a useful map and an educational program designed to enhance life in the community for the betterment of all involved. The teams are working on projects ranging from; emergency management, historical markers, storm drain locations, and flood zones.

**Results**
* An evaluation report entitled Making 4-H Community Mapping Projects Successful has been published in the ESRI GIS Educator, which is an internationally distributed newsletter.
* Twelve new geospatial lesson plans have been developed and are being pilot-tested
* We have formed a new partnership with the University of Oklahoma’s Center for Spatial Analysis.
* Two of our county teams of youth and adults, along with myself, were invited to present poster presentations of their mapping projects at the National Council for Geographic Education, which is the national conference for geography.
* Oklahoma has two youth and two adult representatives on the National GIS Leadership team. These youth and I were able to present information about our geospatial initiative team projects at the International ESRI Education Users Conference in San Diego, CA.
* Our county teams have formed partnerships with Regional Development Authorities, local EMS services, school teachers, and other agencies. County Commissioners have requested assistance from our teams in creating geospatial maps to benefit the county.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>
4-H Youth Development

Outcome #2

1. Outcome Measures
   Number of well-water assessments conducted

2. Associated Institution Types
   • 1862 Extension

3a. Outcome Type:
   Change in Knowledge Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
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</table>

3c. Qualitative Outcome or Impact Statement
   Issue (Who cares and Why)

   What has been done
   This program was changed

   Results

4. Associated Knowledge Areas
   KA Code  Knowledge Area
   806      Youth Development

Outcome #3

1. Outcome Measures
   Number of well owners beginning voluntary well water testing for bacteria

2. Associated Institution Types
   • 1862 Extension

3a. Outcome Type:
   Change in Action Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4</td>
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</tbody>
</table>

3c. Qualitative Outcome or Impact Statement
   Issue (Who cares and Why)

   Oklahoma's valuable environmental resources are in serious need of protection and improved stewardship. Restoration and enhancement of resources requires expanded awareness, knowledge, and appreciation of the environment and an upgrade of the stewardship ethic.

   The era of abundant and free water has passed in Oklahoma. A review of the past 100 years of climate data shows that the last 20-30 years of the 20th century were above average in precipitation for Oklahoma. In fact, that period was the aberration and the norm is a cyclical pattern of shifting from wet periods to dry periods every 5-7 years. The first few years of the 21st century suggest we are re-entering the more cyclical phase. That factor provides a strong incentive to educate youth and the public on the importance of water conservation.

   What has been done
4-H Environmental Stewardship teams have been formed in 16 counties throughout Oklahoma. These clubs study environmental issues, conduct research and perform service learning projects in their communities. Team projects are as individual as the members and the geography around them. All teams received training water conservation, water quality, and waste management/recycling.

Results

Environmental Impact team educators were trained on the revised Oklahoma Aqua Times lessons plans. Six counties reported these lessons were taught to 1,702 youth and adults. In Washita County, 80 students participated in a two-session program that not only stressed the importance of water conservation but also gave the students the opportunity to monitor their own families' water use for a week. Students saved an average of 50 gallons per family per day and they learned at least one new water conservation method. An estimated 4,000 gallons of water has been saved per day from this exercise.

A Cotton County 4-H member wrote a water conservation essay for the Governor's Water Conference. The member was the runner up in the 11th & 12th grade division; he was awarded a $1,000.00 savings bond at the Governor's Water Conference Banquet for his efforts.

Another member of the 4-H Environmental Impact Team has started a water body clean-up project at a local park. The team periodically visits the newly finished pond and picks up debris and trash from the edges of the pond.

Educational programs such as the stream trailer, water hydrology model, and Aqua Times lessons were delivered to urban youth, after-school youth, as well as school enrichment, and 4-H club youth.

These youth learned the importance of water quality, water availability, and the importance of keeping our water clean. Some of the participating 4-H youth went a step further and developed illustrated presentations and workshops to share their new knowledge with other youth from their home counties.

In addition to these programs, members of the Environmental Impact team started Blue Thumb water monitoring projects, held EnviroVenture workshops, collected and recycled ink cartridges, mapped city storm drains, and Roger Mills County 4-H members even held a Wind Energy meeting for over 500 landowners to educate them about the benefits of wind energy.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>

Outcome #4

1. Outcome Measures
   Number of youth/adults that continue volunteer well-water testing and other environmental monitoring past training

2. Associated Institution Types
   • 1862 Extension

3a. Outcome Type:
   Change in Condition Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
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</tr>
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</table>

3c. Qualitative Outcome or Impact Statement
   Issue (Who cares and Why)

What has been done

Results
4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>

Outcome #5

1. Outcome Measures
   Number of community leadership action plans completed

2. Associated Institution Types
   • 1862 Extension

3a. Outcome Type:
   Change in Action Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>42</td>
<td>21</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Oklahoma communities struggle with providing young people positive alternatives to substance abuse, teen pregnancy, and poor health and nutrition choices.

Community leaders, parents, and schools representatives observe both youth and even adults lack community interest and skills for making sound choices. In many instances existing community organizations struggle with recruiting, training, and retaining viable volunteer base necessary to meet community needs.

Participants of the Oklahoma 2001 National 4-H Youth Conversations and 2002 OCES Listening Forums identified the need for:
- Increased collaboration and organization of youth organizations in a unified front to address youth issues of: substance abuse, teen pregnancy, childhood obesity, nutrition and health, stress management, healthy choices, life skills development and job training;
- Positive role models and character education;
- Instilling a social and civic awareness of community needs and providing adult and youth audiences with the skills for taking a proactive role in their communities.
- Youth Governance
- Opportunities for exploring careers and continuing education beyond the classroom; and
- A method for identifying, recruiting, and training mentors/volunteers for working with youth.

What has been done

21 Action Plans have been initiated by 10 of 14 counties

Results
Case 1 - Bryant County
A town hall meeting was conducted and the main priority was underage drinking and its effects on the community. Approximately 110 persons attended this event including State Congressman and Representative, Police Chief, Choctaw Nation staff and persons from the Indian and Hispanic population.

Human Capital was enhanced as peer groups were used to address the issue of alcohol consumption. Youth become educated on the health risks involved with alcohol abuse and the number of youth being involved in this and other risky behavior is reduced.

Social capital was built as a safe and alcohol free environment were provided where youth can play games have activities and attend a concert. Youth who participated in BLT program were better equipped to get involved in their community in leadership roles and become active participants in positive change.

Civic capital was built as the youth initiated the community forum and woked to engage others. The net result was a well-attended forum with a cross section of public stakeholders and community groups.

Cultural capital was enhanced through the engagement of Native American and Hispanic populations who brought diverse opinions and input into the deliberations and enhanced collaboration. The strategy used was to engage an elder from the Choctaw Nation as a speaker during the forum.

This will be on going activities with showing videos, positive peer group activities and trying to reach the youth at a younger age by doing Wize Guyz and Girl Power programs within the county. The Girl Power and Wize Guyz are programs designed to address alcohol and its effects along with self esteem issues for all of the fifth grade boys and girls within all of the county schools.

A Saturday was taken to show youth that they can enjoy activities without alcohol. The Turning Point Coalition, Safe Schools Healthy Students along with the Bryan County Extension planned and conducted games, activities and concert for the youth to enjoy. During this time the youth could enjoy all of the activities without the influence of drugs or alcohol.

Case 2 - Caddo County
A public forum has been held where 'Under Age Drinking' was identified as the issue that would be addressed through Youth/Adult Partnerships. Needs assessment were done by 2 means: a pre-survey sent to county officials, DHS personnel, teachers, School Administration and community leaders and the Public Forum and a survey during the forum. Over 100 attended the forum.

Human Capital was developed as community apathy, from both youth and adults, was addressed as well as the problems of youth being involved in risky behavior and substance abuse.

Social capital was developed as the community acknowledged and discussed risky behavior and substance abuse issues. Youth leaders were instrumental in the communities awakening. Youth and adults agreed in the need to combat apathy, create safe places for youth to interact and the importance of fostering communications with young people.

Civic/Political Capital is being developed as Community Decision Makers become more aware of the knowledge, interest and abilities of youth going through training initiated by BLT. Youth voices are being listened to more.

Case 3 - Creek County
A public forum consisted of 36 adults and 42 youth from across Creek County representing 4-H, HCE, FFA, Student Council, Boy Scouts and Girl Scouts. The forum identified five major areas of needs assessment those were: youth/adult partnerships, teen behavior, drug and alcohol abuse, teen pregnancy, and community involvement.

Human capital was enhanced as the community embraces the need for attending training and working to develop healthy youth-adult partnerships. Social capital was be built as youth and adult learned to cooperate and appreciate the knowledge and skills they can contribute in addressing a community need. Civic/Political Capital was nurtured as youth voices, ideas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>
1. **Outcome Measures**
   Number of trained and "graduated" youth and adult volunteers still providing direction to their communities in elected and/or volunteer roles

2. **Associated Institution Types**
   • 1862 Extension

3a. **Outcome Type:**
    Change in Condition Outcome Measure

3b. **Quantitative Outcome**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>0</td>
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</tbody>
</table>

3c. **Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

What has been done

Results

4. **Associated Knowledge Areas**

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
</tr>
</tbody>
</table>

**Outcome #7**

1. **Outcome Measures**
   Number of people understanding Youth-Adult Partnership and Service Learning and Progressive Leadership Development

2. **Associated Institution Types**
   • 1862 Extension

3a. **Outcome Type:**
    Change in Knowledge Outcome Measure

3b. **Quantitative Outcome**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
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<td>1552</td>
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</table>

3c. **Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**
Oklahoma communities struggle with providing young people positive alternatives to substance abuse, teen pregnancy, and poor health and nutrition choices.

Community leaders, parents, and schools representatives observe both youth and even adults lack community interest and skills for making sound choices. In many instances existing community organizations struggle with recruiting, training, and retaining viable volunteer base necessary to meet community needs.

Participants of the Oklahoma 2001 National 4-H Youth Conversations and 2002 OCES Listening Forums identified the need for:
- Increased collaboration and organization of youth organizations in a unified front to address youth issues of: substance abuse, teen pregnancy, childhood obesity, nutrition and health, stress management, healthy choices, life skills development and job training;
- Positive role models and character education;
- Instilling a social and civic awareness of community needs and providing adult and youth audiences with the skills for taking a proactive role in their communities.
- Youth Governance
- Opportunities for exploring careers and continuing education beyond the classroom; and
- A method for identifying, recruiting, and training mentors/volunteers for working with youth.

What has been done

* 1097 youth volunteers and 455 adults received 551.5 hours of training.
* 29 series of programs have been conducted (A series is defined as multiple sessions designed for a team being trained to plan, conduct and evaluate a service learning project.)
* 52 Single Workshop have been conducted (A single workshop is defined as one stand alone session taught to develop youth-adult teamwork and community awareness and activism.)
* Event Display produced (An event display is defined as an educational display used to promote BLT at community events, conferences and to partnering organizations.)

Team members presented at 16 Conference (Conferences is defines as conducting a workshop or workshops at an organized Extension or Partnering Organization's conference.)

Results

An awareness is being generated in communities and organizations that youth have a valuable place in identifying and addressing needs within a community. The youth with the assistance of adult mentors are learning skills and being provided meaningful opportunities to apply the skills to real life situations. Youth and adults are learning youth have a place in governing their community needs.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
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</tbody>
</table>

Outcome #8

1. Outcome Measures

   Number of 4-H Environmental Stewardship Teams

2. Associated Institution Types

   • 1862 Extension

3a. Outcome Type:

   Change in Action Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
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</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>(No Data Entered)</td>
<td>16</td>
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</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

   Issue (Who cares and Why)
Oklahoma’s valuable environmental resources are in serious need of protection and improved stewardship. Restoration and enhancement of resources requires expanded awareness, knowledge, and appreciation of the environment and an upgrade of the stewardship ethic.

The era of abundant and free water has passed in Oklahoma. A review of the past 100 years of climate data shows that the last 20-30 years of the 20th century were above average in precipitation for Oklahoma. In fact, that period was the aberration and the norm is a cyclical pattern of shifting from wet periods to dry periods every 5-7 years. The first few years of the 21st century suggest we are re-entering the more cyclical phase. That factor provides a strong incentive to educate youth and the public on the importance of water conservation.

Between 2000 and 2005, the amount of waste entering Oklahoma’s landfills increased by almost 1.5 million tons. The Oklahoma Department of Environmental quality estimates that 80% of household trash (equivalent to 67 trash cans per person) has the potential to be recycled. While there is little economic incentive to recycle in Oklahoma, recycling or reusing materials preserves space in landfills for non-recyclable materials. In areas not served by waste collection services, household waste is dumped in ditches and gullies on county roads, creating an added clean-up expense for county commissioners and a hazard to livestock and water supplies in the area.

What has been done

4-H Environmental Stewardship teams have been formed in 16 counties throughout Oklahoma. These clubs study environmental issues, conduct research and perform service learning projects in their communities. Team projects are as individual as the members and the geography around them. All teams received training in water conservation, water quality, and waste management/recycling.

Results
Each county participating in the 4-H Environmental Impact program worked with their OCES program advisory councils, 4-H Volunteer leaders' board and Teen Leader organization to select projects which would address their individual county needs. The selected projects fell into two categories: recycling and water conservation/water quality.

Recycling:
Oklahoma 4-H collected a total of 4,180 pounds of aluminum pop tabs this year for the Ronald McDonald charities. This means approximately 836 families could be housed for one week at a Ronald McDonald House. Cotton County alone recycled 930 pounds of aluminum cans (they donated 130 pounds of pop tabs to the Ronald McDonald House) the funds raised from the sale of the aluminum cans was used to support new 4-H environmental activities and other county 4-H activities, this was also the case for multiple 4-H environmental teams. Through the recycling program In Rogers County, participating families reported a change in household habits; they have now made recycling part of their daily routine. Other counties toured recycling centers, taught educational workshops, and prioritized recycling in their educational programs.

Water Quality/Conservation:
Environmental Impact team educators were trained on the revised Oklahoma Aqua Times lessons plans. Six counties reported these lessons were taught to 1,702 youth and adults. In Washita County, 80 students participated in a two-session program that not only stressed the importance of water conservation but also gave the students the opportunity to monitor their own families' water use for a week. Students saved an average of 50 gallons per family per day and they learned at least one new water conservation method. An estimated 4,000 gallons of water has been saved per day from this exercise.

A Cotton County 4-H member wrote a water conservation essay for the Governor's Water Conference. The member was the runner up in the 11th &12th grade division; he was awarded a $1,000.00 savings bond at the Governor's Water Conference Banquet for his efforts.

Another member of the 4-H Environmental Impact Team has started a water body clean-up project at a local park. The team periodically visits the newly finished pond and picks up debris and trash from the edges of the pond.

Educational programs such as the stream trailer, water hydrology model, and Aqua Times lessons were delivered to urban youth, after-school youth, as well as school enrichment, and 4-H club youth.

These youth learned the importance of water quality, water availability, and the importance of keeping our water clean. Some of the participating 4-H youth went a step further and developed illustrated presentations and workshops to share their new knowledge with other youth from their home counties.

In addition to these programs, members of the Environmental Impact team started Blue Thumb water monitoring projects, held EnviroVenture workshops, collected and recycled ink cartridges, mapped city storm drains, and Roger Mills County 4-H members even held a Wind Energy meeting for over 500 land owners to educate them about the benefits of wind energy.

4. Associated Knowledge Areas

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<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
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<tbody>
<tr>
<td>806</td>
<td>Youth Development</td>
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V(H). Planned Program (External Factors)

External factors which affected outcomes
- Competing Programmatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)

Brief Explanation
The well testing program was discontinued and changed into a broader water quality team program due to unforeseen complications with well testing.

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

1. Evaluation Studies Planned
4-H Youth Development

- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results
{No Data Entered}

Key Items of Evaluation
{No Data Entered}