

## **Natural Resources & Environment**

### **Planning & Program Evaluation Logic Model (2009-2013)**

#### **Brief Program Summary**

Planned programs in the Division of Agriculture will continue to focus on the primary problems of forest productivity, forest health, soil health, water quality and quantity, and animal waste management. Multi-disciplinary research teams will be utilized to address these complex environmental problems. Strong linkages are needed with state agencies and policymakers to provide the necessary research base to address complex natural resource issues. Industry-university coalitions must address environmental issues along with special interest groups and under-served populations.

In response to new State and Federal (CAFO) regulatory guidelines, the UACES has developed a certification training program for nutrient management planners and nutrient applicators. The UACES has been involved in developing a risk assessment tool for reducing Phosphorus loss to streams in Poultry producing areas as part of a lawsuit settlement. On the voluntary front, the UACES is developing a program with the goal of assisting agricultural producers and landowners with integrating environmental goals and regulations as part of farm planning. It will also promote a more integrated approach to on-farm natural resource management to include forestry, wildlife, and ecological sustainability as part of the planning process.

As environmental and natural resource concerns shift, so will our educational efforts.

Forest Resource Management has been a long lasting program of the UA Division of Agriculture. Workshops, short courses, meetings, publications, and field days will continue as touchstones of the program. As access to technology expands the program can be delivered via the web, satellite, and other electronic media. The county agents located in each county of the State are central to the program as well. County agents develop and deliver forestry meetings, workshops, and field days focused on issues important to their local clientele and leadership. State Extension faculty will continue to work closely with county level programs as well as with stakeholders at the State level including the Arkansas Forestry Commission, the Arkansas Forestry Association, the Arkansas Game & Fish Commission, and other key natural resource groups to deliver the program and make key changes when new unforeseen issues arise. Extension program and research efforts in the forest resource management program area are implemented through the Arkansas Forest Resources Center. The goal of the Forest Resource Management program, through the Arkansas Forest Resources Center, is to develop and deliver programs in research & extension that enhance and insure the sustainability of forest-based natural resources. The program therefore, is broadly defined to include a vast array of topics, issues, and strategies aimed at promoting the sustainable and wise use of Arkansas' forest resources.

#### **ASSUMPTIONS**

##### **Natural Resources & Environment:**

The University of Arkansas, Division of Agriculture will continue to have strong relationships among state and federal natural resource agencies - Evidence: The Division of Agriculture is involved in several formal partnerships such as the Arkansas Conservation Partnership; The Division helps support a Regional Extension liaison to EPA. The University of Arkansas, Division of Agriculture will continue to be well connected to Regional (multi-state) water quality efforts – Evidence: The UA-CES continues to participate to the Southern Regional CSREES project. The University of Arkansas, Division of Agriculture provides solutions to natural resource and environmental concerns through the integrated missions of research, education, and Extension outreach - Evidence: The formation and functioning of the UA Environmental Task Force that meets monthly to quarterly to ensure this integrated approach. The UA-Division of Agriculture will continue to seek financial support in our effort to address the key issues mentioned above - Evidence: During the past 5 years the UA-CES has received over 3.5 million dollars in outside funding. The UA-CES will continue to produce timely educational products - Evidence: The UA-CES led a multi state and federal agency effort to develop the Arkansas Nutrient Management Planning Guide and the Arkansas Nutrient Applicator Guide to help citizens comply with new State nutrient management and application laws.

**Forestry:**

The University of Arkansas, Division of Agriculture will continue to have strong relationships among state and federal natural resource agencies - Evidence: The Division of Agriculture works with numerous State and Federal Natural Resource Agencies including the Arkansas Forestry Commission and the US Forest Service. The University of Arkansas, Division of Agriculture provides solutions to forest resource management concerns through the integrated missions of research, education, and extension outreach .The UA-CES will continue to produce timely educational products.

Inputs Resources & Activities	If, then	Methods	If, then	Target Audience(s) Participation	If, then	Short-Term Impact	Medium-Term Impact	If, then	Long-Term Impact
<ul style="list-style-type: none"> <li>• 4-H Rice for Ducks programs</li> <li>• Arkansas Acres for Wildlife program</li> <li>• Develop educational materials, curriculum, &amp; resources</li> <li>• Geographic Information Systems (GIS) and Geographic Positioning Systems (GPS) training</li> <li>• Site visits, one-on-one consultations</li> <li>• Workshops</li> <li>• Field Days</li> <li>• Farm Visits</li> <li>• Demonstrations</li> <li>• Educational Meetings</li> <li>• News-articles</li> <li>• Newsletter</li> <li>• Web-based Education</li> <li>• Continuing Education</li> </ul>	➔	<p><b><u>Direct Methods</u></b></p> <ul style="list-style-type: none"> <li>• Demonstrations</li> <li>• Education Class</li> <li>• Group Discussion</li> <li>• One-on-One Intervention</li> <li>• Workshop</li> </ul> <p><b><u>Indirect Methods</u></b></p> <ul style="list-style-type: none"> <li>• Public Service Announcement</li> <li>• Web sites</li> <li>• TV Media Programs</li> <li>• Newsletters</li> </ul>	➔	<ul style="list-style-type: none"> <li>• 4-H Club Youth</li> <li>• Agri Business</li> <li>• Row Crop Agricultural Producer Organizations</li> <li>• Row Crop Agricultural Producers</li> <li>• Certified Crop Advisors</li> <li>• Conservation District Directors</li> <li>• Consultants</li> <li>• Forest Landowner Groups</li> <li>• Forest Industry</li> <li>• Loggers</li> <li>• Natural Resource Professionals</li> <li>• Landowners</li> <li>• Homeowners</li> <li>• Educators</li> <li>• State &amp; Federal Agency personnel</li> <li>• Watershed Organizations</li> <li>• Wildlife Organizations</li> <li>• Private nutrient applicator</li> <li>• Commercial nutrient applicator</li> <li>• Livestock producers</li> <li>• Livestock industry personnel</li> <li>• Livestock producer organizations</li> <li>• General public</li> </ul>	➔	<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of landowners indicating an increased understanding of natural resource management</li> <li>• Number of participants indicating an increased understanding of stormwater issues</li> <li>• Peer Reviewed Publications.</li> </ul>	<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of clientele who adopt Best Management Practices in Natural Resource management that protect and enhance water quality</li> <li>• Number of Landowners who adopt wildlife management practices that enhance wildlife habitat or prevent &amp; control wildlife damage to property</li> <li>• Number of registered foresters maintaining CFEs</li> </ul>	➔	<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of acres impacted by Natural Resources &amp; Environmental educational efforts (including Acres for Wildlife)</li> </ul>

				<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Policy makers</li> <li>• Youth</li> <li>• Extension faculty &amp; staff</li> <li>• Teaching faculty</li> <li>• Research funding personnel and agencies</li> </ul>					
EXTERNAL INFLUENCES		↑		↑			↑		↑
<b>Data Collection Plan:</b>									
1. <u>Who? ( will collect data &amp; enter into AIMS or AES Survey)</u>									
2. <u>How? (survey method/instrument?)</u>									
3. <u>When? (When will the data be collected &amp; entered?)</u>									