

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Natural Resources and Community Development

2. Brief summary about Planned Program

Alaska is a state with an urban core and rural periphery. Major resource development activities are headquartered in the urban centers that have access to multi-modal transportation and advanced communication systems. These activities primarily focus on oil and gas exploration, development and export. Processing for in-state use is limited to gasoline, home-heating fuel, and aviation fuels. Urban communities lack infrastructure to engage in value-added activities that would enhance development of resources not directly related to the petroleum industry. Most rural communities are off the road/rail system and communication infrastructure is still somewhat limited. Many smaller rural communities (populations under 500 citizens) may not have even the most basic amenities such as adequate sanitation and efficient energy sources that would attract appropriate resource developers. Many of these communities are in need of enhanced facilitation skills as a mechanism to translate local cultural values into the dominant cultural policy-making activities across the state. Research is needed that will provide knowledge to give both urban and rural communities the opportunity to diversify their economies. Research and outreach provide under-served populations in rural areas real options for economic development and improved quality of life. Research and outreach priorities will be determined through joint collaboration with stakeholders in communities, industry, and state and federal agencies. Focus will be on identifying emerging natural resource issues in energy, climate change, food security, agriculture and horticulture, forestry, mining, water and community development for stakeholders. Research and the education and outreach growing from that research will provide Alaskans with unbiased, science-based information for both urban and rural populations to assist in understanding issues and making informed decisions. AFES and CES will continue to provide traditional programs in education and outreach, but will enhance these programs with a focus on energy, food security, positive youth development and a sustainable quality of life for individuals, families and communities, including engaging communities with UAF by bringing ideas back to the university to assist in establishing future research and education activities.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	10%		0%	
112	Watershed Protection and Management	20%		5%	
122	Management and Control of Forest and Range Fires	10%		20%	
123	Management and Sustainability of Forest Resources	10%		20%	
131	Alternative Uses of Land	10%		5%	
134	Outdoor Recreation	5%		15%	
605	Natural Resource and Environmental Economics	15%		15%	
608	Community Resource Planning and Development	15%		10%	
610	Domestic Policy Analysis	5%		10%	
	Total	100%		100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Effectively addressing natural resources issues will depend on forming partnerships with credible, research-based organizations and other land-grant institutions as well as schools and colleges within UAF. Other units within the University of Alaska Fairbanks include the School of Management, School of Fisheries and Ocean Sciences, College of Rural and Community Development, College of Engineering and Mines. Partnership interests include providing multi-resource planning and the process of determining public resource policy, resource economics and policy impact assessment, rural community culture and economic development analysis, environmental law and policy, and outdoor recreation. Research is multi-disciplinary and includes the physical and social science arena, forestry and agricultural sciences, law and policy, land and resource planning, resource economics and outdoor recreation management. As Alaska matures there will be changes in the state's demographics, economy, social structure and land use. In planning public resource policy most agencies tend to use methods of involving the public that were developed over 30 years ago; i.e. public meetings, open houses, and public hearings. The work being done in this planned program will increase the level of awareness of new public involvement techniques as well as their advantages and disadvantages. Alaska federal land management policies are set by national priorities which at times conflict with Alaskan interests on state-owned lands. Additionally, 44 million acres of Alaska's lands are owned by Alaska Native regional and village corporations and use of the resources on them is controlled by the corporations. Including the Native lands, approximately 10% of Alaska's total land mass is in private ownership. The Natural Resources and Community Development planned program will provide information for stakeholders on issues related to forest and land resources, mineral and non-petroleum energy, water resources and rural communities; provide skill training in topics such as agriculture, horticulture, alternative energy, water quality monitoring, management of local water resources, identification of rocks and minerals of economic importance, use of Global Positioning Systems and Geographic Information Systems to locate, inventory, and monitor important resources, reviewing

economic analysis information to assist in planning and managing natural resources, evaluating economic options for rural communities, and use of natural resource micro-business opportunities for rural and urban communities.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Resource management in Alaska will continue to be constrained by expectations and perceptions of the public. Despite public opinion, these desires must follow processes that meet the substantive requirement of state and federal law and policy. Costs of extracting, harvesting and processing Alaska resources must be evaluated in the context of global markets. Energy sources are a major concern in extracting, harvesting, and processing Alaska resources and must be considered in remote communities that will require a local source of energy supply. Multiple use of Alaska's lands is necessary for a diversified economy and infrastructure is minimal to support this goal. Global competitiveness will remain an issue and Alaska must exploit its competitive advantage in transportation routes and raw natural resources. Conflict resolution will continue to be necessary in a state whose land is primarily federal parks, reserves or preserves and where urban versus rural needs continue to conflict. World markets for mineral resources have spurred mineral exploration and mine development in Alaska. Resource extraction and population growth will affect Alaska's water resources, also influenced by other regions' increased need for water resources. Rural communities will increasingly look to nearby forest and land resources for economic and personal use. Recreation opportunities exist in all regions of Alaska's northern forests and tundra lands and sustainable development of those tourism and recreation resources will benefit the state.

2. Ultimate goal(s) of this Program

- Develop regional economic models for Alaska resource development impact on communities.
- Develop and examine public involvement processes that meet public expectations.
- Determine the effectiveness of natural resource and environmental laws.
- Create and develop long-term partnerships both in and outside Alaska. Assist stakeholders in making informed decisions regarding utilization of valued natural resources.
 - Increase number of Alaska youth receiving basic natural resource skill training for early entry into natural resource management jobs and assist youth in choosing careers managing Alaska's natural resources.
 - Facilitate product development to include timber, nontimber products, and forest management for fuel production.

- Assist stakeholders in realizing the connection between recreation and human well-being
- Establish CES as a clearinghouse of unbiased, research-based, consumer-friendly information in the areas of climate change, food security, agriculture and horticulture, alternate energy and energy conservation, water quality, mineral resources, GIS climate modeling, economic analysis, small business start-ups, and options for facilitation training for rural communities based on community interest with an emphasis on transferring Alaskan developed information.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2013	4.0	0.0	1.9	0.0
2014	4.0	0.0	1.9	0.0
2015	4.0	0.0	1.9	0.0
2016	4.0	0.0	1.9	0.0
2017	3.0	0.0	1.9	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Research products will provide science-based information in resource planning, economic and environmental impact of natural resource use, market and nonmarket value of resources, and conflict resolution in rural communities and villages along with basic information in climate change issues, food security, agriculture and horticulture, forest sciences, and soil sciences for use by planners, economists, and policy makers. Measurable outcomes will include peer-reviewed publications, lay publications, rural community business/development plans, and citizen participation. Extension activities involve partners from other UAF units as well as AFES to assure that there is a feedback loop that will continue to make the information provided to stakeholders relevant to their needs. These activities will develop integrated and/or multistate projects concerning natural resources stewardship within the University of Alaska Fairbanks and with other land grant institutions; develop criteria to broadly define the temporal natural resource interests of stakeholders so the program's activities address the needs of those Alaskans most directly impacted by specific natural resource matters; develop partnerships with government agencies to identify and address stakeholder needs; regularly assess stakeholder needs and emerging natural resources issues impacting stakeholders; conduct literature reviews and review contemporary research relevant to this program; develop culturally and educationally relevant lay publications (including fact sheets, bulletins, circulars and newsletters) that provide unbiased, scientific information about natural resource issues; develop, review, and revise a web site to be the electronic portal for UAF information on natural resources stewardship matters of concern to stakeholders; develop, plan, deliver, evaluate and revise as needed extension workshops, demonstrations and basic skill trainings; facilitate discussions and other meetings that address stakeholder needs in or near their communities; develop, conduct and review 4-H and FFA projects related to the natural resource stewardship program; develop, plan, conduct, evaluate and revise as needed young adult stakeholder workforce readiness trainings that prepare youth for entry-level positions in natural resource management positions; develop, deliver, facilitate and evaluate natural resource stewardship informational discussions with urban populations to increase their awareness of natural resource issues and the values and needs of stakeholders relative to natural resources; coordinate and

assist SNRAS and other units of the University of Alaska in recruiting and graduating young Alaskans with endorsements, certificates and degrees that result in careers in managing, using and protecting natural resources.

Product development activities include:

- Providing standards for Alaska woods.
- Developing nontimber forest products with business entrepreneurs.
- Investigating the fuel potential of Alaska's forests.
- Investigating recreation opportunities and impacts in Alaska's forest ecosystems.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> • Education Class • Workshop • Group Discussion • One-on-One Intervention • Demonstrations • Other 1 (Youth and natural resource camps) • Other 2 (Consulting) 	<ul style="list-style-type: none"> • Public Service Announcement • Newsletters • TV Media Programs • Web sites other than eXtension • Other 1 (Publications)

3. Description of targeted audience

This program will focus on industry and entrepreneurs including communities, families, and newly forming cooperatives and businesses, non-profit and for-profit development corporations. Efforts will be made to address problems of the traditionally under-served rural populations within the limit of resources available. Stakeholders are those directly impacted by contemporary natural resource issues related to forest and land resources, mining resources, and water resources, young adults wanting entry level skills needed for employment in natural resource related businesses, agencies or organizations, and persons in natural resource related occupations who wish to increase their skill and/or knowledge level, federal and state agencies.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Output 1: Active partnerships with other land grant institutions, government agencies, stakeholder groups and organizations.
- Output 2: Develop and deliver public issues education workshops and classes for stakeholders on locally relevant natural resources and related issues.
- Output 3: Develop and maintain a web-based platform for discourse and information sharing on relevant areas of interest in natural resource issues that connect people to information.
- Output 4: Conduct needs assessments of natural resource management stakeholders.
- Output 5: Develop regional economic models for Alaska resource management scenarios. Output will be models, presentations and publications.
- Output 6: Develop and implement public involvement in natural resource issues. Output measure will be public input sessions and publications.
- Output 7: Provide analysis of natural resource and environmental laws. Output measure will be presentations, workshops and publications.
- Output 8: Develop scenario models for predicting future needs.

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Outcome 1: Increase and maintain partnerships with stakeholder groups, government agencies, and other institutions that will enhance the land-grant mission.
2	Outcome 2: Increase the number of integrated and multistate research-extension activities.
3	Outcome 3: Increase the recruitment and retention of youth appreciating and considering natural resource management careers.
4	Outcome 4: Increase public involvement in natural resource and community development issues. Outcome measure will be the increase in number of communities.

Outcome # 1

1. Outcome Target

Outcome 1: Increase and maintain partnerships with stakeholder groups, government agencies, and other institutions that will enhance the land-grant mission.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 122 - Management and Control of Forest and Range Fires
- 123 - Management and Sustainability of Forest Resources
- 134 - Outdoor Recreation
- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension
- 1862 Research

Outcome # 2

1. Outcome Target

Outcome 2: Increase the number of integrated and multistate research-extension activities.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 131 - Alternative Uses of Land
- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension
- 1862 Research

Outcome # 3

1. Outcome Target

Outcome 3: Increase the recruitment and retention of youth appreciating and considering natural resource management careers.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 123 - Management and Sustainability of Forest Resources
- 131 - Alternative Uses of Land
- 134 - Outdoor Recreation
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension
- 1862 Research

Outcome # 4

1. Outcome Target

Outcome 4. Increase public involvement in natural resource and community development issues. Outcome measure will be the increase in number of communities.

2. Outcome Type : Change in Action Outcome Measure

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 131 - Alternative Uses of Land
- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension
- 1862 Research

V(J). Planned Program (External Factors)

1. External Factors which may affect 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.)

Description

The loss of two faculty positions in AFES will severely impact research and education. Budget cuts have also resulted in the loss of funding for faculty and staff salaries.

Changes in state and federal policy and regulation will affect appropriations to the university and the economy of the state of Alaska. Current energy dialogue in the state centers on oil and gas with increasing discussions of alternate energy particularly biomass. Should a successful proposal for a gas line be announced, this will inject jobs and dollars into Alaska and most likely change priorities from an increasing focus on using alternative forms of energy that are regionally produced to, once again, export of a raw product.

Alaska is the harbinger of climate change in the North and this will continue to influence the thrust of the Natural Resource and Community Development program in coming years. Policy and regulation and competing public priorities are already coming to the fore as endangered species affect land use and hence resource use for community development. Despite the potential affect of external factors, there will be a need for continuing adult education and higher education to fill workforce vacancies or new positions that are created to meet demands in energy and community development, and a continuing need for processes that improve the quality of life and economic well-being of communities.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

The objective of the AFES and CES is to set in place a feedback loop that brings information from our units to our clientele and bring clientele input back to us to meet the needs of the people of Alaska.