

## Part 1 – Agency Profile

### Agency Overview

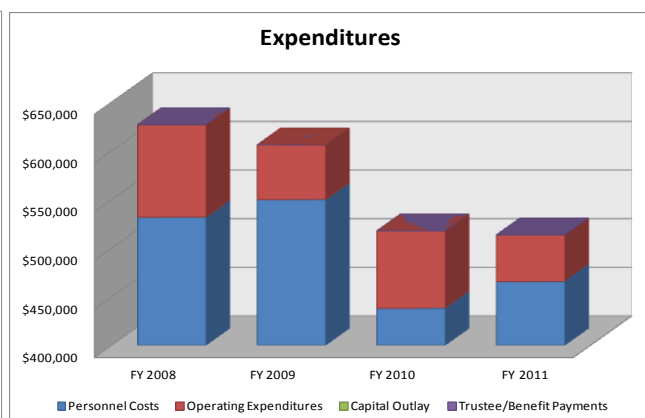
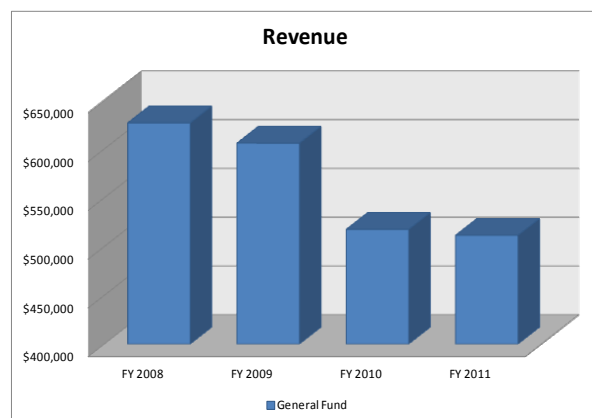
Research mission – investigation into forestry and rangeland resource management problems, forest nursery production, and related areas. Part of the College of Natural Resources, Forest Utilization Research also includes the Policy Analysis Group which has a legislative mandate to provide objective data and analysis pertinent to natural resource and land-use issues as suggested by an advisory committee of Idaho's natural resource leaders.

### Core Functions/Idaho Code

The duty of the Experiment Station of the University of Idaho's College of Natural Resources is to institute and conduct investigations and research into the forestry, wildlife and range problems of the lands within the state. Such problems specifically include forest and timber growing, timber products marketing, seed and nursery stock production, game and other wildlife, and forage and range resources. Information resulting from cooperative investigation and research, including continuing inquiry into public policy issues pertinent to resource and land use questions of general interest to the people of Idaho, is to be published and distributed to affected industries and interests. (Idaho Code §§ 38-701, 38-703, 38-706, 38-707, 38-708, 38-709, 38-710, 38-711, 38-714)

### Revenue and Expenditures:

Revenue	FY 2008	FY 2009	FY 2010	FY 2011
General Fund	\$ 626,600	\$ 605,900	\$ 517,500	\$511,400
<b>Total</b>	<b>\$ 626,600</b>	<b>\$ 605,900</b>	<b>\$ 517,500</b>	<b>\$511,400</b>
Expenditure	FY 2008	FY 2009	FY 2010	FY 2011
Personnel Costs	\$ 531,400	\$541,100	\$ 437,700	\$465,244
Operating Expenditures	95,200	64,800	79,800	48,156
Capital Outlay	0	0	0	0
Trustee/Benefit Payments	0	0	0	0
<b>Total</b>	<b>\$ 626,600</b>	<b>\$ 605,900</b>	<b>\$ 517,500</b>	<b>\$511,400</b>



**Profile of Cases Managed and/or Key Services Provided:**

<b>Cases Managed and/or Key Services Provided</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Number of Private Landowners Assisted: Pitkin Forest Nursery	1500	1600	1300	1300
Number of Seedling Industry Research Projects: Pitkin Forest Nursery	2	2	2	3
Number of:				
• Research Projects:				
Experimental Forest	6	13	8	7
Pitkin Forest Nursery	10	11	10	12
Rangeland Center	*	*	*	2
• Teaching Projects:				
Experimental Forest	50	28	30	21
Policy Analysis Group	18	25	26	20
Pitkin Forest Nursery	5	5	5	5
Rangeland Center	*	*	*	2
• Service Projects:				
Experimental Forest	6	7	2	5
Policy Analysis Group	12	19	14	14
Pitkin Forest Nursery	10	12	15	15
Rangeland Center	*	*	*	2

\*The Rangeland Center was initiated in FY2011.

**Performance Highlights:****Experimental Forest:****Highlights:**

*Research* - 7 research projects including graduate student involvement to collect and analyze data

*Education* - Classroom involvement – 7 faculty, 14 different class courses, 30 field trips, 20 follow up lab sessions, involving 300 + students for hands on experience.

*Internships*- 21 student workforce including critically thinking and problem solving experience – interdisciplinary academic learning.

*Outreach* – 5 outreach programs including school teachers, loggers, and professional foresters. Hosted 22nd FFA Career Development Forestry Competition

The centerpiece of the University of Idaho Experimental Forest (UIEF) is the 8,247 acres of forest land on Moscow Mountain that were donated to the University during the 1930s as cutover industrial timberlands. Today all but 450 acres are managed as working forests. The UIEF also manages 398 acres in two parcels in Kootenai County, and has a life estate of 1,649 acres in Valley County that someday will come under UIEF management. These lands provide many research, education and outreach opportunities.

Research conducted on the UIEF in FY2011 provided original data for 7 projects conducted by College of Natural Resources faculty. The graduate students who collect and analyze this data will become tomorrow's scientists and organization leaders.

Education involving hands-on experience to supplement classroom and laboratory exercises is a significant and valuable supplement to a college education in forest utilization. In FY2011 seven College of Natural Resources faculty members used the UIEF for at least one field trip session during fourteen

different courses, ranging from an introductory freshman orientation to senior and graduate level courses demonstrating current research knowledge and land management practices. In total more than 300 students visited the UIEF on 30 field trips, with an additional 20 follow-up laboratory sessions in which data collected during field trips were analyzed.

Internship opportunities for students have been offered by the UIEF since 1972. In FY2011 the UIEF employed 21 students as the workforce of choice. Staff provide hands-on education as the students help accomplish the management objectives in the UIEF strategic plan that helps the College fulfill the duties of the Experiment Station as described in Idaho Code above. Student employee interns are required to think critically and solve problems on a daily basis, thus are acquiring job skills beyond just accomplishing the work-at-hand. These work assignments include technology transfer as students learn to use state-of-the-art equipment and techniques, as well as incorporating their interdisciplinary academic learning in an operational and research forest setting. Upon graduation these student employee interns generally have little trouble finding employment.

Outreach programs conducted on the UIEF attract Idaho citizens of all ages and all walks of life, from school teachers to loggers and professional foresters. Five such programs were conducted in FY2011. For example, the State FFA Career Development Forestry Competition returned to the UIEF for the 22<sup>nd</sup> straight year: UIEF staff set up and ran the competition events as defined by the State FFA organization.

#### **Policy Analysis Group:**

##### **Highlights:**

*Economic Contributions* - Three articles explaining marketing fundamentals of woody biomass as an energy resource. In collaboration with Western Governors' Association estimates of woody biomass supplies was produced for 16 states.

*Director Involvement* - Chair Forestry/Biomass Task Force for Idaho Strategic Energy Alliance – focus on Idaho Forests as potential carbon sinks and forest utilization for energy involves carbon emissions accounting topics. Attended three national meetings to present results of analysis. Other presentations include interrelated nature of sustainable forest management, wood bioenergy economics and carbon sequestration policies, improving forest conditions to enhance wildfire resiliency and wildlife habitat.

Publication highlights include three items featuring the economic contributions of the state's natural resource-based industries. Three articles explaining market fundamentals of woody biomass as an energy resource were produced for forest landowners and their advisors. In cooperation with the Western Governors' Association, county-level estimates of sustainable woody biomass supplies potentially available for energy production were published for 16 states. The Director continues to chair the Forestry/Biomass Task Force for the Idaho Strategic Energy Alliance (ISEA); two items focusing on the role of Idaho's forests as potential carbon sinks were included in the ISEA's Carbon Issues Task Force report. Forest utilization for energy involves the currently controversial issue of carbon emissions accounting, which was the subject of PAG series report #31. The Director was invited to three national meetings to present results of this analysis. Other presentations addressed the interrelated nature of sustainable forest management, wood bioenergy economics, and carbon sequestration policies, emphasizing that active forest management provides a "triple win" by improving forest conditions to enhance wildfire resiliency and wildlife habitat, providing renewable energy feedstocks, and revitalizing rural communities by putting people to work in Idaho's forests and wood products manufacturing facilities. Carbon sequestration is an additional benefit of forest management and timber resource utilization. The Director continues to be actively engaged in numerous state, regional and national task forces and committees dealing with policy issues of importance to Idaho, including two roles with the Idaho Strategic Energy Alliance, and for the Western Governors' Association's Forest Health Advisory Committee, co-chairing the Woody Biomass Utilization and Energy Production Subcommittee.

**Pitkin Forest Nursery:****Highlights:**

*Research* – improve the quality of plant material available for reforestation in the state. In collaboration with IDT to improve understanding use of native plants in roadside re-vegetation as well as germination requirements of key Idaho species – this information is important for development of new markets for Idaho' nursery growers.

*Education* - support of 7 graduate students through research at Pitkin Forest Nursery including understanding of tree germination for several Idaho species, problems of stocktype selection. This will facilitate efficiency of seed use in forest management, prediction of natural regeneration and post-fire restoration activities.

*Outreach* - several workshops and training sessions aimed at improving forest management practices in Idaho. Activities for children, land management professions and layperson provide further instruction and education.

*Teaching* - provided research facility for several UI course which require hands-on nursery experience. This provides experience which is sought by Forest Tree seedling nurseries throughout the United States.

More highlights for FY2011 feature continued engagement with Idaho landowners, natural resource industries, and citizens. Research into improved forest management practices included initiation of new studies investigating the effects of stocktype (the method of production of nursery stock for reforestation and restoration) selection on seedling development. This research topic will provide information and decision support across the state that is anticipated to streamline nursery production practices with the site-specific reforestation needs. Similar research with rangeland species is also underway. A study on irrigation practices in native plant nurseries should increase water use efficiency within small, privately owned nurseries, while at the same time decreasing potential fertilizer runoff.

Research projects in collaboration with the Inland Empire Tree Improvement Cooperative continue, and are designed to improve the quality of plant material available for reforestation in the state. In addition, collaborative research with the Idaho Transportation Department is leading to improved understanding of the potential for use of native plants in roadside revegetation as well as germination requirements of some key Idaho species. Information from this research is important input for helping develop new markets for Idaho's nursery growers. In FY2011, seven graduate students were working towards degrees through research conducted at the nursery. Three students are researching problems of stocktype selection. Other student projects include broadening scientific understanding of tree seed germination for several different Idaho species, which should increase the efficiency of seed use in forest management and also facilitate better prediction of natural regeneration and post-fire restoration activities. Many other students are using the facilities at the Pitkin Forest Nursery as a component of their graduate research on forest nutrition and soil management, fire modeling, and post-fire regeneration.

Forest Utilization Research support for the nursery has resulted in external support to further enhance nursery infrastructure. In FY2011 this included leveraging support funds from the USDA Forest Service to document nursery practices for training purposes (\$100,000) and from private industry to improve nursery practices (Jiffy Corporation, \$55,000). In an effort to improve seedling selection practices in Idaho, a partnership is underway with Potlatch Corporation (~\$20,000 to date). In addition, the improvement in nursery facilities has enabled us to host several workshops and training sessions aimed at improving forest management practices in Idaho. Activities for children, land management professionals, and laypersons have helped increase understanding of the importance of forestry and natural resource management in Idaho. For example, in October 2010, the 31<sup>st</sup> Intermountain Container Seedling Growers Association Meeting was held in McCall and attracted participants from across the state. On the teaching side, several University of Idaho courses used the nursery facilities for hands-on education. Forest tree seedling nurseries throughout the United States are seeking graduates with experience such as that gained at the Pitkin Forest Nursery.

**Rangeland Center:**

The College of Natural Resources, in cooperation with the College of Agriculture and Life Sciences, created a new Rangeland Center to function as an interdisciplinary unit for bringing together researchers and extension professionals to expand scientific information about Idaho's rangelands and ensure that this information can be readily obtained by land managers and ranchers. In FY2011, during its first year of operation, the center helped organize two state-wide symposia on rangeland fire and range-livestock production. These were attended by 250 land and livestock managers. Publications included two national-level technical guides for land managers, one on sage grouse habitat, the other quantifying fuel levels on rangelands to help wildfire management activity planning. Two educational activities were conducted: a state-wide career event for high school students, and a multi-state rangeland assessment event for high school students in Idaho, Nevada and Utah.

**Other Activities:**

To establish closer working relationships with Idaho's forest business sector, the College of Natural Resources conducted two roundtable sessions with invited executives from forest industry firms.

**Part II – Performance Measures**

Performance Measure	FY 2008	FY 2009	FY 2010	FY 2011	Benchmark
Number of New Research Projects Per Year:					
Experimental Forest	4	6	5	5	4
Pitkin Forest Nursery	4	5	5	8	5
Rangeland Center	*	*	*	2	*
Goal 2, Objective A, Strategy 1, 2, 3					
Goal 3, Objective A, Strategy 2					
Number of Research Studies Completed/Published Per Year	3	3	7	14	10
Goal 3, Objective A, Strategy 1					
Number of publications:	3	2	2	3	3
Experimental Forest	14	19	14	14	10
Policy Analysis Group	10	12	7	10	10
Pitkin Forest Nursery	*	*	*	2	*
Rangeland Center					
Goal 1, Objective B, Strategy 1					
Number of workshops conducted:					
Experimental Forest	11	6	4	9	12
Goal 3, Objective A, Strategy 1					
Policy Analysis Group	18	25	26	20	12
Goal 1, Objective B, Strategy 2					
Pitkin Forest Nursery	15	21	20	20	20
Goal 1, Objective A, Strategy 2					
Goal 3, Objective A, Strategy 2					
Rangeland Center	*	*	*	2	*
Goal 1, Objective A, Strategy 2					

\*The Rangeland Center was initiated in FY2011; benchmarks will be established during FY2012.

**For More Information Contact**

Kurt Pregitzer, Dean and Thomas Reveley Professor  
College of Natural Resources  
PO Box 441138  
University of Idaho  
Moscow, ID 83844-1138  
Phone: (208) 885-6442    E-mail: [kpregitzer@uidaho.edu](mailto:kpregitzer@uidaho.edu)