

## Part I – 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 Rangeland Center with a legislative mandate for interdisciplinary research, education and outreach as suggested by a partner advisory council to fulfill the University's land-grant mission (Idaho Code § 38-715), and the Policy Analysis Group with 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 (Idaho Code § 38-714).

### 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 rangeland 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, 38-715)

### Revenue and Expenditures

Revenue	FY 2015	FY 2016	FY 2017	FY 2018
General Fund	\$887,100	\$1,078,800	\$1,268,400	\$1,347,100
<b>Total</b>	<b>\$887,100</b>	<b>\$1,078,800</b>	<b>\$1,268,400</b>	<b>\$1,347,100</b>
Expenditures	FY 2015	FY 2016	FY 2017	FY 2018
Personnel Costs	\$693,500	\$902,900	\$1,106,100	\$1,106,900
Operating Expenditures	\$109,300	\$129,300	\$136,900	\$159,300
Capital Outlay	\$84,300	\$46,600	\$25,400	\$80,900
Trustee/Benefit Payments	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$887,100</b>	<b>\$1,078,800</b>	<b>\$1,268,400</b>	<b>\$1,347,100</b>

### Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2015	FY 2016	FY 2017	FY 2018
Number of Private Landowners Assisted: Pitkin Forest Nursery	1550	1575	1575	1570
Number of Seedling Industry Research Projects: Pitkin Forest Nursery	4	3	6	5
Number of:				
• Research Projects:				
Experimental Forest	11	11	15	16
Policy Analysis Group	6	9	10	12
Pitkin Forest Nursery	12	10	11	10
Rangeland Center	19	14	21	25
• Teaching Projects:				
Experimental Forest	24	24	26	22
Policy Analysis Group	8	8	8	8
Pitkin Forest Nursery	6	6	3	6
Rangeland Center	10	13	11	12
• Service Projects:				
Experimental Forest	11	11	12	12
Policy Analysis Group	7	12	10	11
Pitkin Forest Nursery	15	13	10	10
Rangeland Center	8	9	17	16

## **FY 2018 Performance Highlights**

### **University of Idaho Experimental Forest (UIEF)**

FY18 was another productive year for the University of Idaho Experimental Forest (UIEF), as the College continues to make full use of the UIEF as a working forest managed by Forestry students in CNR and serving all programs in support of the University land grant mission. UIEF activities included active student learning in timber sale preparation, road building, wildland firefighting and prescribed burning. Students inventoried over 1000 acres, and oversaw pre-commercial thinning of over 100 acres. To integration FUR program areas we proudly planted 61,000 seedlings grown by students at the Pitkin Forest Nursery following student-led prescribed burning of over 100 acres. Student firefighting staff working for the UIEF supported state agencies (IDL) in fire protection using FUR-funded (FY15) fire pumper units and pickup (FY16) in suppression of the 1000-acre Strychnine Fire. Along with this student-led management, faculty, graduate students, research staff and collaborators from as far implementing several new research projects, including 3 real-time GPS studies to improve logger and firefighter safety, trials to evaluate western larch family genetics to increase forest productivity, 1 new thinning study, 2 new drone flights collecting remote sensing data. IDL and IDEQ worked with UIEF staff to sample class I stream shade as part of a statewide collaborative study, and USFS researchers characterized root architecture in 25-year old plantations. The UIEF hosted dozens of field-based, hands-on forestry class activities in 2017-2018 as documented in associated performance metrics. We also hosted workshops and other activities with Future Farmers of America, Associated Logging Contractors and Extension Forestry, and approximately 12 other small group field tours. We constructed one new building on the Big Meadow unit of UIEF to support research activities and added a new fuel and paint supply storage structure to support research. We hired a new Forester, Matt Hajos, who is working closely with the Director and other FUR entities to help support our continued growth in research, teaching and service. Lastly, our new, FUR-funded compact excavator (FY17) was used by students to install new fire protection resources (3000-gallon water tanks), maintain logging roads, and build fuel breaks to protect the state's resources. In summer 2018 the excavator is supporting two new field research projects and has reduced the need for external contract costs. Two new research proposals prepared with state and industry collaborators in FY18 that are currently in review include increasing logging production efficiency and increasing wildland firefighting safety. These will total over \$3,000,000 if funded.

### **Policy Analysis Group (PAG)**

FY18 was a year in which the recent growth of the Policy Analysis Group began to show value. After adding a Senior Researcher position and multiple graduate students, the work the PAG has conducted in natural resource economics is beginning to show up in the form of finalized reports and the peer reviewed literature. Five new Idaho Experiment Station reports appeared in print over the year ranging in topics from general economic contributions of Idaho's forest products sector to maintenance of non-motorized trails on Idaho's national forests to wildfire funding strategies for all western states. Those served included traditional clients such as the Idaho Department of Lands, USDA Forest Service, and University of Idaho Extension as well as new additions including USDA Office of the Chief Economist and Oregon Forest Resources Institute. These additions demonstrate the gains made in reaching a PAG FY18 goal of widening the PAGs geographic focus thus giving better context of Idaho's position in the regional and national economy and establishing the PAG as a go-to center for policy analysis. One major component of this effort is the new methodology for conducting economic contribution analyses developed for the forest products industry in the state of Idaho, which we are currently in the process of expanding to cover all industries thus providing a more comprehensive assessment of endowment land contributions to the State's economy. Other major efforts initiated FY18 include evaluating the effect of forest collaborative(s) on the pace and scale of Federal forest management, exploring outcome-based policy options to better adapt rangeland communities to wildfire, and better understanding the economic outcomes of IDLs commitment to the federal forest management through the Good Neighbor Authority. The PAG continues to meet its legislative mandate to provide objective data and analysis on natural resource and land-use issues of concern to Idaho citizens. The number and scope of research projects highlights our commitment to this mandate, the impact of which is to provide timely information to inform critical land management decisions at multiple levels of government.

### **Pitkin Forest Nursery (Nursery)**

FY18 was a transitional, yet productive, year for the Pitkin Forest Nursery as Dr. Andrew Nelson transitioned from Interim Director to full-time Director and new staff were hired. We maintained our momentum to fulfil our land grant mission by expanding our education, research, and outreach programs. We served 245 students at the Nursery, primarily through tours of the greenhouses and discussions about horticulture and importance of seedling

production in the region. The facilities were used by three courses in the College of Natural Resources, two in the College of Agriculture and Life Sciences, and one course at neighboring Washington State University. In addition to courses that used the Pitkin Nursery, we employed 25 students during the academic year to help grow the crop and gain operational nursery experience. Four of our undergraduate student staff have expressed interest in pursuing nursery-related career following graduation and are receiving specialized training to help achieve their objectives. The students and FUR funded staff were instrumental in the production of 482,136 seedlings that were distributed to Idahoans and across the region. We have worked with the University of Idaho Experimental Forest to collect seed on the forest and grow their entire seedling crop. This synergy allows our students to observe the entire forestry-production cycle from seedling to final product and makes our programs unique among all other programs across North America. Our reputation for producing high-quality seedlings is evident through the continued stakeholder support as well as international interest for our seedlings. We shipped 30 seedlings to Uzbekistan this year to plant in the botanical garden as part of an Earth Day celebration. We initiated five new projects this year and continued five additional projects focused on improving seedling production and enhancing reforestation and restoration success. The projects span from improving seedling quality in the nursery and refining a rapid seedling quality assessment system to examining how seedling growth and survival are affected by the interactions of seedling quality and competing vegetation. To support these new research projects we secured \$116,988 in external funds. We provided seedlings and planting advice to approximately 500 stakeholders this year and served 1,901 participants through outreach activities. Our outreach included various events with local school children, professional training for nursery growers and extension professionals, seminars to family forest landowners and industrial forest managers, and interacting with the general public during our annual Arbor Day Celebration.

#### **Rangeland Center (Center)**

The Rangeland Center in FY18 continued to expand its role as the place to turn to for range science in Idaho and met its legislatively mandated goals to “create knowledge and foster understanding of the stewardship and management of rangelands.” In addition to the Director and Communication Specialist, a new position, the Associate Director, was added and helps guide the Center’s operations from the UI Boise Water Center. The Center provided educational and research opportunities to 8 interns, including two interns placed at the Rinker Rock Creek Ranch. On-campus, 18 rangeland-related courses were offered this fiscal year at UI. Center membership increased to include 40 faculty from CNR, CALS, and UI Extension. The Partner Advisory Council is at full capacity with 15 members and is meeting regularly to provide insights and guidance to Center activity.

Research projects with Rangeland Center faculty have grown to 33 this fiscal year. Projects are collaborative, interdisciplinary, and focused on providing usable information to our stakeholders. An example is the sage-grouse and grazing project, a rigorous multi-partner, 10-year intensive study that will inform land management decisions throughout sage-grouse range. The opportunities for research at Rinker Rock Creek Ranch have grown as 12 research and monitoring projects there look at the intersections of livestock grazing, wildlife management, and range health. Another area of opportunity and growth has been seen with the Center’s involvement, along with the UI Policy Analysis Group, with outcomes-based management in Idaho. The interest in this management approach has been seen at workshops and webinars, and with the successful competitive grant to establish a learning network, the Idaho Rangeland Conservation Partnership, which is a collaboration between the Center and The Nature Conservancy, Idaho Rangeland Resource Commission, the Governor’s Office of Species Conservation, and the US Fish and Wildlife Service. New research initiatives are expanding, with the award of a \$75,000 Idaho NRCS Conservation Innovation Grant and a \$72,000 Western Sustainable Agriculture, Research, and Education grant.

Our commitment to offer learning opportunities in land stewardship and to provide reliable information resulted in 13 products and services, including the Fall Forum and the Idaho Range Livestock Symposium, at which 110 and 320 people, respectively, attended. Sagebrush Saturdays, held at Rinker Rock Creek Ranch over the 2017 summer, introduced over 130 people to a variety of range topics. A highly popular smart phone app, the Field Guide to Idaho Grasses, debuted this spring and will be available soon in book form in FY 2018. Recent efforts to revamp how we provide information and connect with stakeholders in an electronic world has led to an increase in the visibility of the Rangeland Center, the College of Natural Resources, and the University of Idaho through social media and an online presence. Our efforts to engage partners and stakeholders has led to over 11 service activities where the UI Rangeland Center provided leadership as well as objective and relevant information to over 700 people. This unique role, of providing unbiased information and being a trusted convener, is bearing fruit and will for years to come.

**Part II – Performance Measures**

Performance Measure	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	
<b>Goal 1</b>						
<i>Achieve excellence in scholarship and creative activity through an institutional culture that values and promotes strong academic areas and interdisciplinary collaboration among them.</i>						
1. Objective A, Measure I: Number of CNR faculty, staff, students and constituency groups involved in FUR-related scholarship or capacity building activities.	actual	61	46	46	50	-----
	target	46	46	46	49	52
2. Objective A, Measure II: Number and diversity of courses that use full or partially FUR funded projects, facilities or equipment to educate, undergraduate, graduate and professional students.	actual	N/A	26	23	28	-----
	target	N/A	23	23	24	29
3. Objective B, Measure I: An accounting of products (e.g., research reports, economic analysis, BMPs) and services (e.g., protocols for new species shared with stakeholders, policy education programs and materials provided, accessible data bases or market models).	actual	39	43	31	36	-----
	target	31	31	31	32	37
4. Objective B, Measure II: An accounting of projects recognized and given credibility by external reviewers through licensing, patenting, publishing in refereed journals, etc.	actual	14	15	13	16	-----
	target	13 <i>refereed articles</i>	13 <i>refereed articles</i>	13 <i>refereed articles</i>	14 <i>refereed articles</i>	17
<b>Goal 2</b>						
<i>Engage with the public, private and non-profit sectors through mutually beneficial partnerships that enhance teaching, learning, discovery, and creativity.</i>						
5. Objective A, Measure I: Document cases: Communities served and resulting documentable impact; governmental agencies served and resulting documentable impact; non-governmental agencies and resulting documentable impact; private businesses and resulting documentable impact; and private landowners and resulting documentable impact. Meeting target numbers for audiences identified below and identifying mechanisms to measure economic and social impacts	actual	N/A	N/A	1,250	1,835	-----
	target	N/A	N/A	1,250	1,250	1,250
<b>Goal 3</b>						
<i>Efficient financial management of FUR state appropriated dollars supporting Goals 1 and 2 and leveraging resources to secure external funding.</i>						
6. Objective A, Measure I: New funding sources from external granting agencies, private and public partnerships and other funding groups.	actual	N/A	N/A	13	17	-----
	target	N/A	N/A	13	14	18

**Performance Measure Explanatory Notes**

Performance Measure #1 – Seeking 20% growth by FY2023 based on increased staff resources in 2016 that allows more faculty, staff, students and constituency groups to be involved in FUR-related scholarship activities.

- Performance Measure #2 – Seeking 15% growth by FY2023 based on College and program goals to enhance coordination of course offerings and research.
- Performance Measure #3 – Seeking 15% growth by FY2023 based on a critical need to communicate with external stakeholders, and increase the pace of products produced.
- Performance Measure #4 – Seeking 25% growth by FY2023 based on increased staff resources in 2016 focused on research that will increase scientific outreach and communication.
- Performance Measure #5 – This is a new measure based on UI and College strategic goal to increase involvement and communication with external stakeholders. The target of 1,250 participants served was established from internal analysis of recent year participants.
- Performance Measure #6 – Seeking 25% growth based on analysis of projects started and completed in recent years, staff capacity, and the need to increase the pace of projects completed annually.

**For More Information Contact**

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