# *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, forage and rangeland resources and effects of fire on these systems. 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 2020 | FY 2021 | FY 2022 | FY 2023 |
|---|---|---|---|---|
| General Fund | $1,435,500 | $1,421,000 | $1,447,700 | $1,526,900 |
| **Total** | **$1,435,500** | **$1, 421,100** | **$1,447,700** | **$1,526,900** |
| **Expenditures** | | | | |
| Personnel Costs | $1,244,200 | $1,258,400 | $1,274,320 | $1,364,300 |
| Operating Expenditures | $191,300 | $162,600 | $173,380 | $162,600 |
| Capital Outlay | $0 | | | |
| Trustee/Benefit Payments | $0 | | | |
| FY20 1% Rescission/1% COVID/HB557 | $31,200 | | | |
| FY21 5% General Fund Holdback | | $71,100 | | |
| **Total** | **$1,435,500** | **$1,349,900** | **$1,447,700** | **$1,526,900** |

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

| Cases Managed and/or Key Services Provided | FY 2020 | FY2021 | FY 2022 | FY 2023 |
|---|---|---|---|---|
| Number of Private Landowners Assisted: | | | | |
| Pitkin Forest Nursery | 2093 | 2898 | 2975 | 3041 |
| Number of Seedling Industry Research Projects: | | | | |
| Pitkin Forest Nursery | 6 | 6 | 5 | 4 |
| Number of: | | | | |
| • Research Projects: | | | | |
| Experimental Forest | 14 | 15 | 18 | 22 |
| Policy Analysis Group | 13 | 5 | 7 | 8 |
| Pitkin Forest Nursery | 11 | 11 | 9 | 8 |
| Rangeland Center | 21 | 19 | 22 | 23 |
| Mica Creek | 5 | 3 | 5 | 2 |
| • Teaching Projects: | | | | |
| Experimental Forest | 14 | 19 | 16 | 14 |
| Policy Analysis Group | 6 | 6 | 7 | 7 |
| Pitkin Forest Nursery | 5 | 3 | 3 | 12 |
| Rangeland Center | 15 | 10 | 20 | 20 |
| Mica Creek | 3 | 4 | 5 | 6 |

| Cases Managed and/or Key Services Provided | FY 2020 | FY2021 | FY 2022 | FY 2023 |
|---|---|---|---|---|
| • Service Projects: | | | | |
| Experimental Forest | 13 | 14 | 12 | 14 |
| Policy Analysis Group | 4 | 3 | 8 | 9 |
| Pitkin Forest Nursery | 9 | 9 | 11 | 11 |
| Rangeland Center | 12 | 9 | 11 | 8 |
| Mica Creek | 1 | 1 | 4 | 1 |

## FY 2023 Performance Highlights *(Optional)*

**Policy Analysis Group** (PAG)
FY23 was a year in which the integrated nature of the Policy Analysis Group (PAG) really hit its stride. On the student engagement front, the PAG offices were bustling with students ranging from undergraduate up to PhD. The undergraduates worked hard to update our popular County Yearbook and really expand its scope. While the older contained a single sheet for each county with limited information, the newer yearbook has more of a web focus with pages currently highlighting the forest inventory and forest industry contributions to the county economy. We are also in the process of adding county-level reports on wildfire and forest density and fuel loading. The expansion of the annual forest industry report to the county level provides information in a more readily digestible format for State Representatives and County Commissioners. We also partnered again with the Idaho Forest Products Commission to produce a synthesis of that information in January in time for the start of the legislative session. PAG continues to be a requested speaker at meetings across the state like the Loggers Education for Advancement and Professionalism, the Family Foresters Workshop and the Forester's Forum which inform and engage key stakeholders from individual landowners to large companies. In addition to these state and regional speaking engagements PAG researchers were invited to present methods and findings at meetings across the country which not only spreads the word of the good work we have been up to, but also provides constructive criticism and new ideas regarding natural resources issues that will improve our efforts at home. Spring's graduation ceremony this year saw the departure of all our undergraduate research assistants who have moved on to careers as diverse as AGWest Farm Credit, the Palouse Land Trust, and The US Forest Service. Our loss is their gain, and this coming year will see a new group of student research assistants. The PAG continues to focus on its legislative mandate to provide objective data and analysis on natural resource and land-use issues of concern to Idaho citizens. This report merely illustrates a few of the many projects undertaken at PAG and speaks to our commitment to inform critical land management decisions at multiple levels of government.

**Pitkin Forest Nursery** (Nursery)
FY23 was an exciting year for the Pitkin Forest Nursery (Nursery) as most key staff roles were filled. This allowed the Nursery to (i) conduct cutting-edge reforestation research, (ii) share information on seedling production and planting to our wide network of stakeholders in Idaho, (iii) produce high-quality trees and native shrubs for planting projects, (iv) begin curriculum design for the recently approved Associate of Science degree in Forest Nursery Management and Technology, and (v) deliver an immersive internship program to train the future nursery workforce. A major emphasis of research at the Nursery focused on drought conditioning seedlings to increase survival following planting at drought-prone sites across Idaho and the western US. This research is funded through various external grants totaling $1.3 million and supports two graduate students and one postdoctoral scientist. Additional research benefitting the nursery industry includes testing alternative earthpots for containerized seedling production, aiming to improve survival in the field and decrease nursery waste. The Nursery continued to be a primary source of information on seedlings and reforestation Idaho. Tours of the Nursery were provided to 20 groups totaling 1,015 participants, 585 of which were K-16 students. In an effort to help meet the increasing demand for seedlings, the Nursery sold 388,419 seedlings to 1,273 customers in FY23, primarily in Idaho. Construction on the new greenhouses continued in FY23 with finishing touches and expected completion next year. The A.S. degree is the only in the nation designed for intensive hands-on preparation for a career in the forest nursery industry. The Nursery worked on preparing the curriculum for the new degree in FY23 for the first class of students next year. A cohort of six interns from across the US started a summer program for an immersive training in growing tree seedlings at the Pitkin Nursery with an expectation of entering the nursery workforce shortly after completing the internship. The A.S. degree and internship are designed to increase the number of trained staff entering the nursery industry to help meet the increasing seedling demand.

**University of Idaho Experimental Forest** (UIEF)
FY23 was a very active year for the University of Idaho Experimental Forest (UIEF) as we continued our efforts to expand research, teaching and demonstration that benefits forestry stakeholders and the people of the State of Idaho. Over $25 million in new proposals were submitted to several agencies and other sources with more than $1 million in new funding successfully awarded. The UIEF received funding from Idaho Dept of Lands to complete a new fuels reduction project to protect University forestland investments on Moscow Mountain, including demonstration and workshops. More than 30 students gained forestry experience working on the UIEF and over 350 participated in field-based classes. The UIEF worked with the University of Idaho Library to establish two new databases to support research: a Research Exchange that makes over 300 past research publications from the last 90 years available for digital access and UIEF 4.0, a digital 'twin' of the Experimental Forest to support new smart and digital forestry research and teaching initiatives to improve the efficiency and safety of forestry. In 2023 the UIEF completed modernizing our student logging operations to strengthen our 4-year forestry degree and support CNR's new 2-year A.S. Forest Operations and Technology degree. A new Workforce Development Program Manager was hired in 2023. This position will work with the Student Logging Crew (~75%) and continue to connect and leverage the UIEF as a resource to support K-12 forestry and forest products career preparation statewide (25%). In FY23 we worked with the Idaho Forest Products Commission, Idaho FFA, Idaho State Tax Commission, Idaho Dept. of Lands and Idaho Forest Owners Association to host several new field tours, workshops, and student competitions, presenting to over 600 Idahoans at events through the year. Events coordinated on the UIEF in FY23 included the Idaho Forest Products Commission Sustainable Forestry Tour for teachers, FFA Forestry Career Development Event (CDE), the Idaho Forest Owners Association (IFOA) Forest Owners Field Day, Idaho Forest Group Leadership Development Tour, and several smaller workshops and field visits that increase utilization of the UIEF to support all aspects of the forestry and forest products industry.

**Rangeland Center** (Center)
In FY23, the UI Rangeland Center furthered its mission to provide science to address the challenges facing Idaho's rangeland stakeholders with several major outreach efforts. The Rangeland Center directly supported the national meeting of the Society for Range Management in Boise in February 2023. Rangeland Center faculty, staff, and range students all participated in this heavily attended event which brought in over 1600 land managers, ranchers, academics, students, consultants, and non-profit organizations. Additional outreach efforts that the Center helped organize included the annual Fall Forum, held in October 2022 in Pocatello focused on the theme of making collaborative conservation work for Idaho's rangelands. The Rangeland Center also supported the Range Livestock Symposium, held in January 2023 at three locations throughout the state which shared information with livestock producers on herd health and management, virtual fencing, and renewable energy challenges on rangelands. Center members also participated in a number of other conferences, proceedings, field trips, and workshops. At the same time, the Rangeland Center continues to advance research opportunities related to rangelands, continuing work on virtual fence technologies, fuel break effectiveness, stream restoration techniques, and many more. Finally, in 2023, the Rangeland Center hosted seven listening sessions across Idaho to elicit management priorities and challenges from stakeholders in preparation for developing our next 5-year strategic plan.

**Mica Creek Experimental Watershed** (MCEW)
In FY23, the MCEW continued to build on long-term research designed to assess the effects of Idaho forest Best Management Practices on water quantity, quality, streamflow regime, aquatic macroinvertebrates, and fish populations. A highlight in FY23 was the installation of a new 10 m meteorological station in the Mica Creek headwaters. The addition of the new meteorological station will further position Mica Creek to become a prime location for climate and forestry research in the rain-snow transition zone. A second key highlight was the re-installation of the longitudinal stream temperature monitoring network to assess changes that have occurred since the publication of the 2009 stream temperature study. Personnel are continuing to synthesize long-term fish monitoring data and prepare manuscripts on the fish community response to contemporary forest management practices. Preliminary results suggest that water temperatures never exceeded thresholds stressful to cold-water species and fish populations were not adversely impacted by timber harvest operations. MCEW personnel are also continuing to collect fish population information during ongoing harvest activities in the upper watershed. The project has also been testing a new water level monitoring system in the lab and will begin field testing the system this fall. Project personnel recently calibrated all seven flumes in the watershed to develop stream discharge relationships and determine if instruments are functioning properly. Additional calibrations will occur during summer base flow conditions. Development of an internet accessible relational database with the University of Idaho's Research

Computing and Data Services (RCDS) is ongoing. MCEW personnel are continuing to collect phosphorus and nitrogen species samples across the watershed in a collaborative study with the National Council on Air and Stream Improvement (NCASI). Project personnel conducted outreach and scholarly presentations for approximately 50 attendees at an NCASI-sponsored international meeting and organized a 2-day field tour that included Mica Creek for state and federal forest water quality coordinators.

## *Part II – Performance Measures*

| Performance Measure | | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
|---|---|---|---|---|---|---|
| **Goal 1**<br>*Achieve excellence in scholarship and creative activity through an institutional culture that values and promotes strong academic areas and interdisciplinary collaboration among them.* | | | | | | |
| 1. Objective A, Measure I: Number of CNR faculty, staff, students and constituency groups involved in FUR-related scholarship or capacity building activities. | actual | 54 | 62 | 61 | 70 | ---------- |
| | *target* | *52* | *52* | *54* | *55* | *56* |
| 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 | 41 | 38 | 41 | 57 | ---------- |
| | *target* | *26* | *26* | *28* | *28* | *28* |
| 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 | 35 | 23 | 22 | 28 | ---------- |
| | *target* | *34* | *34* | *34* | *36* | *36* |
| 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 | 40 | 32 | 40 | 51 | ---------- |
| | *target* | *15 refereed articles* | *16 refereed articles* | *16 refereed articles* | *17 refereed articles* | *17 refereed articles* |
| **Goal 2**<br>*Engage with the public, private and non-profit sectors through mutually beneficial partnerships that enhance teaching, learning, discovery, and creativity.* | | | | | | |
| 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 | 2,842 | 3,150 | 3,257 | 3,700 | ---------- |
| | *target* | *1,850* | *1,850* | *1,850* | *1,850* | *1,850* |
| **Goal 3**<br>*Efficient financial management of FUR state appropriated dollars supporting Goals 1 and 2 and leveraging resources to secure external funding.* | | | | | | |
| 6. Objective A, Measure I: New funding sources from external granting agencies, private and public partnerships and other funding groups. | actual | 22 | 18 | 16 | 16 | ---------- |
| | *target* | *16* | *16* | *17* | *17* | *18* |

## Performance Measure Explanatory Notes *(Optional)*

Performance Measure #1 – Seeking 20% growth by FY2024 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 FY2024 based on College and program goals to enhance coordination of course offerings and research.

Performance Measure #3 – Seeking 15% growth by FY2024 based on a critical need to communicate with external stakeholders, and increase the pace of products produced.

Performance Measure #4 – Seeking 25% growth by FY2024 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 by 2024 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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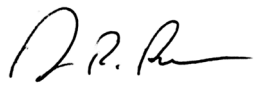
## *Director Attestation for Performance Measurement Report*

In accordance with *Idaho Code* 67-1904, I certify the data provided in the Performance Measurement Report has been internally assessed for accuracy, and, to the best of my knowledge, is deemed to be accurate.

Department: Forest Utilization Research, College of Natural Resources, University of Idaho



August 8, 2023

Director's Signature

Date

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