

McDonald-Dunn Research Forests

Overarching Principles Guiding New Forest Management Plan – 23 January 2023

Each principle described below reflects the Vision/Mission/Goals identified for the Research Forests plus input received during the development of the McDonald-Dunn Forest management plan from the Stakeholder Advisory Committee (SAC), Faculty planning Committee (FPC), or the general public between June 2022 and January 2023. Each principle is written so as to provide overarching suggestions for the management of the McDonald-Dunn Research Forest in the context of the [three missions of the College of Forestry Research Forests](#).

FOUNDATIONAL PREMISES

- **Operate as an actively managed forest that advances the forestry profession by informing best practices in all aspects of forest management.** The McDonald-Dunn Research Forest (hereafter “forest”) is a working forest that provides opportunities for research, teaching, and outreach while providing social and cultural benefits to a variety of users including the College of Forestry, Oregon State University, and the surrounding community.
- **Serve as a demonstration forest that provides diverse research and learning opportunities for students and the public, while being open for public use.** The forest will provide learning opportunities on all aspects of active forest management, demonstrating principles associated with sustainably managing forests for multiple values. The forest will also provide a wide variety of use values to the public.
- **Be adaptive and accountable.** Feasible monitoring expectations will be built into the management plan to enable adaptive management. The plan will incorporate enough flexibility to allow for adjustments over time in response to unforeseen opportunities, constraints, and disturbances as well as new information produced on the College Forests and elsewhere.

CREATE LEARNING OPPORTUNITIES

- **Provide opportunities to conduct innovative research on emerging issues.** The forest will be managed so as to create opportunities to conduct research on the role that managed forests can play in the production of and trade-off between a wide variety of ecosystem services, from the genetic to the ecosystem to the social scale.
- **Utilize creative approaches to monitor trends over time.** Inventory and monitoring efforts will seek to incorporate opportunities to pair traditional inventory and monitoring approaches with emerging technology to ensure accuracy and cost-efficiency, while also creating opportunities for research and education.
- **Foster public awareness and understanding of sustainable forest management.** Interpretation of management and research actions, coupled with outreach on the forest, will seek to promote broader understanding and awareness of the role of actively managed forests to produce and support resilient ecosystems, forest products, and healthy communities.

- **Demonstrate elements of Traditional Ecological Knowledge in management, research, outreach, and educational efforts on the forest.** Through partnerships with local Tribal Governments, the forest will integrate and highlight Traditional Ecological Knowledge.
- **Expand communications about the Research Forests.** Forest staff will improve documentation of past and present management actions, research projects and outcomes, and planned activities. They will also broaden communication efforts within and outside the academic community in order to foster collaborative and inclusive teaching, research, and outreach.

ILLUSTRATE ECONOMIC SUSTAINABILITY

- **Be financially self-sustaining.** The plan will incorporate means to generate revenue to support ongoing forest management, including research, teaching, and outreach associated with the forest. Additional funding will be sought for special projects and opportunities.
- **Account for staffing needs.** The personnel required to maintain the Research Forests as well as associated infrastructure, outreach and communication efforts, must be accurately incorporated when estimating long-term revenue generation needs.
- **Be nimble.** The management plan must incorporate a degree of flexibility that allows it to withstand unanticipated changes such as climate change and associated disturbances, market fluctuations, and modifications to regulations.
- **Ensure environmental sustainability when planning timber harvest long-term.** Harvest activities must not cause degradation in forest health and sustainability over time and must be consistent with the need to provide research and learning opportunities.

EXHIBIT ENVIRONMENTAL SUSTAINABILITY

- **Protect and enhance at-risk species and their habitats.** Research and monitoring will be undertaken to improve knowledge on the status of biodiversity, including at-risk species and the ecological communities upon which they depend. Management activities will be adjusted according to new knowledge and adaptive silvicultural practices.
- **Restore ecological communities in poor health.** Active restoration efforts will take place in ecological communities in need of management. This will include oak woodlands, prairies and meadows, and aquatic ecosystems.
- **Ensure forest structural and compositional diversity.** Management of the forest will, on the whole, foster variability in forest stand conditions ranging in age from early seral to late-successional forest, and varying in structure from simple to complex in order to provide habitat/ecosystems for a variety of species while also providing a variety of learning

opportunities. Ecological patterns and processes, as well as research opportunities, will be considered when planning the spatial arrangement of stand conditions.

- **Actively manage threats to ecological integrity.** Threats such as climate change and invasive species will be actively managed. Expenses associated with management of these threats will be incorporated into budget planning.

NURTURE SOCIAL SUSTAINABILITY & CULTURAL VALUES

- **Ensure public access to the forests.** The forest will remain accessible to the public for a variety of uses from multiple established entry points, but not all places at all times (e.g., safety restrictions, or research or management activities).
- **Foster community connections.** The College of Forestry will seek to nurture social sustainability by creating jobs, forest products, and opportunities for engagement with the forest-user community through such avenues as community science, research, and monitoring efforts.
- **Enhance connections with cultural resources.** Efforts will be made to communicate and engage with individuals who have connections to cultural resources in order to provide opportunities for involvement in the survey, research, and management of these resources.

FOSTER RECREATION OPPORTUNITIES

- **Promote research guided recreation use that minimizes impacts to ecosystems, management, and research.** Public use of the forest will be supported and managed for recreation opportunities consistent with the management plans (forest management plan and visitor use plan). The aim will be to ensure public safety without compromising ongoing management activities and research.
- **Support high quality and diverse recreational experiences.** The forest will seek to provide a range of user experiences within the context of an actively managed forest. Research-guided recreational planning will be inclusive of and balance different types of recreational users; it will seek to enhance experience integrity throughout the forest and minimize potential conflict between users.
- **Conduct research and outreach on sustainable recreational use.** The forest will support research on recreation with the goal of advancing scientific knowledge and informing policies and solutions to recreation management challenges.