McDonald-Dunn Research Forest
Information on the 2024 Woodpecker Harvest

The McDonald-Dunn Research Forest, including Peavy Arboretum, is a working research and demonstration forest that has been under active management for more than 100 years. It is one of nine forests managed by the College of Forestry at OSU, intended to serve as a model for an actively and sustainably managed forest system. These forests are managed according to a suite of goals that includes research, education, ecological resilience, outreach and engagement, recreation, financial sustainability, and adaptive management.

The McDonald-Dunn Forest is currently operating under a management plan adopted in 2005. An updated forest management plan is in the process of being developed through a multi-stakeholder planning process.

Timber harvests on the McDonald-Dunn Forest are designed to meet multiple ecological, research, educational, and management objectives. As with any working forest, financial viability is an important component of management and is balanced with the other goals and objectives for the forest. As an actively managed research forest, the McDonald-Dunn does not receive external support or public revenue for its management as is common for state forests or parks. Revenue from timber harvests pays for management of the forest, recreational activities, research, and education. Recreational activities on the forest generate no revenue but incur numerous costs which are all paid for by timber harvest activities on the forest.

A 2024 harvest, called the Woodpecker Project, uses ecologically-oriented silvicultural methods and was designed in accordance with the guidelines provided by the 2005 Forest Plan. The 2005 Plan outlines management expectations according to four “themes” that are intended to reflect four forest management approaches in use by various Oregon forest landowners and managers. The area around Peavy Arboretum where the Woodpecker Project is occurring is managed according to Theme 4, which is described as “multi-aged, mixed species forests of primarily Douglas-fir established and managed using group-selection harvests, while maintaining structural diversity and associated habitats within stands”. The complexity of the management prescriptions employed to carry out the intentions of Theme 4 incur implementation costs that far exceed those of the other three themes set forth by the 2005 forest plan.

This portion of the forest is dominated by dense stands of Douglas-fir, planted and stewarded by the College of Forestry. Current conditions do not reflect the natural structure nor function of the historical forests of the area. These forests have been planted, thinned and nurtured with the intention of future forest management including the types of harvests currently planned. At the present time, there is much interest in lengthening rotations and evaluating alternatives to large clearcut-based even-aged forest management. The Woodpecker project represents both extended rotation lengths

with retention of legacy trees and provides research and demonstration projects achieving structural and compositional complexity on the forest. Forestry is a long-term practice, and our efforts are aimed at achieving forest conditions 10 – 50 years into the future.

The Woodpecker project is planned in two phases, using three silvicultural approaches outlined in *Theme 4* of the forest plan that are designed to support diverse plant and wildlife communities and healthy forest ecosystems. No harvest is occurring in reserve areas of the McDonald-Dunn Forest.

The first of the three silvicultural approaches in the Woodpecker project involves thinning to support the health and vigor of the forest by reducing competition for resources (e.g., light, water, nutrients) between mature trees growing too close together. Reducing the total number of trees can decrease stress from competition among trees, reduce susceptibility to insects and disease and support continued growth and vigor of the retained trees. The Woodpecker Project calls for a *thin from below*, meaning that the largest, dominant trees are retained. The trees marked for harvest are in the low-mid range of diameters in the stand, and after harvest the stand will have regeneration (seedlings and saplings of multiple species), snags for wildlife, and trees in the mid-story and canopy with a range of different sizes up to dominant Douglas-fir that are 60"+ inches diameter. As this is a *variable spacing thinning*, in some cases, co-dominant trees that are in close proximity to large dominant trees will be removed.

The second of the three silvicultural approaches in the Woodpecker project involves oak restoration, which entails removing Douglas-fir and other species growing close to native Oregon white oaks to allow the oaks to flourish. This addresses the slow die-off of oaks that have been gradually overtopped by Douglas fir and face competition from other species such as big leaf maples. Although once widespread across the margins of the Willamette Valley due to Indigenous stewardship that included cultural burning and tree harvest, the amount of oak savanna and prairie drastically shrank as a result of fire suppression during the past 190 years caused by Euro-American colonization of this area. Oregon white oaks provide valuable forage and habitat for hundreds of native wildlife species and essential first foods used for subsistence by the Kalapuya. They are an important part of both the historical and current cultural and ecological landscape on the McDonald Dunn Forest and surrounding areas. We have received strong guidance from Oregon Tribal Nations that as a land-grant institution, we are obligated to do oak savanna restoration on College forests. Portions of the Woodpecker project fulfill this request from Oregon Tribes.

The third of the three silvicultural approaches in the Woodpecker project involves patch cuts, which create structurally diverse and complex forests with trees of varied sizes (diameters), heights, and ages. The intent of these operations is to remove trees from small patches (each <4 acres) to create a multi-aged forest with small gaps across a landscape scale. This approach to create landscape scale complexity is aimed at increasing the diversity of structure and wildlife forage to support a greater diversity of native plant species, particularly those that are culturally significant and provide Kalapuya first foods and medicine and enrich the soil, and wildlife species across the forest.

The Woodpecker project is in the long-term interests of supporting, studying, and restoring healthy forest ecosystems in the Peavy Arboretum area for many generations to come. By integrating three silvicultural approaches in close proximity to one another, this project provides extensive opportunities for teaching and outreach demonstrations, in addition to the research opportunities associated with evaluating alternatives to large clearcut-based even-aged forest management.