

## Brayton Memorial Forest: Future Vision

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### Introduction

The Brayton Forest is an active forest management, applied research, extension, and teaching site for ISU, the State of Iowa, and the region. It has the potential to be a hub of forestry for the state and region—fostering and exemplifying the critical interdisciplinary and interagency partnerships required for successful forestry within the agricultural Midwest. The vision is for the forest to be a location for experiential learning, sought out by instructors and students within and beyond ISU. As a highly maintained and accessible public land resource, the forest could create forestry advocates out of each Iowan who experiences its recreational, educational, and inspirational resources.

*Research and management vision.* Forestry and associated natural resources research will be of both a practical, applied nature, as needed by Iowa forest landowners and natural resource professionals (e.g., direct seeding trials), as well as replicable and contributing to large-scale state, regional, and national efforts (e.g., Adaptive Silviculture for Climate Change). Research efforts will be interdisciplinary in nature, seeking to answer complex questions while simultaneously fostering new relationships across disciplines. Water quality is an excellent example of this and may be exemplified through projects that seek to investigate Plum Creek floodplain

forest management impacts to flood mitigation, phosphorus cycling, and aquatic habitat.

Effective research and management are impossible without the creation of, and adherence to, a forest management plan. Thus, the critical initial step towards achieving the research and management vision for the forest will be an extensive mapping, inventory, and assessment effort. The resulting GIS database will be the core of the Brayton Forest management plan. Leveraging the existing ISU-IDNR partnership, IDNR staff from the nearby Manchester, Iowa, office will be integral to both the mapping effort and creation of the overall management plan. The mapping efforts are planned to start during summer 2021, and will involve ISU faculty and staff, IDNR staff, and ISU undergraduate and graduate students.

*Extension vision.* The Brayton Forest will be a critical resource at the center of extension forestry specialist Billy Beck’s extension forestry program. The forest will act as a central extension programming location, with an emphasis on attracting and educating county and state-level “force multipliers”—people who interact with forest and agricultural landowners daily, such as crop consultants, rural realtors, Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) staff, watershed coordinators, and local and state legislators. These “multipliers” will take the cutting-edge science observed at the forest to their constituents across Iowa and the region.

The Brayton Forest will be a key location for ISU Extension Forestry programming, as well as a central theme in extension products and media, including publications, video and social media content, virtual and in-person

courses and field days, and extended, in-depth programs (e.g., Master Woodland Manager Program). To achieve this, the site will host a diverse range of extension programming. Extension will be a priority within the management plan, and thus the plan will be flexible regarding adding research and demonstration practices to meet emerging extension needs.

*Teaching vision.* The Brayton Forest will be an in-demand site for experiential learning courses and specific portions of standard courses for ISU instructors and students. This demand will come both from within the ISU NREM department and from across ISU (e.g., EEOB department, College of Design). The forest will provide much needed examples of forest management, able to be witnessed firsthand by students. A notable example of a much-needed teaching resource that could be provided by the forest is a management practice chrono-sequence (e.g., 0, 10, 20, 30-year post-clearcut harvest sites within close proximity).

In addition to in-person and experiential courses, the forest will provide content and media (e.g., video segments) beneficial to virtual classroom settings. Extended summer semester and winter or spring break courses will be hosted at the forest as well.

“Unofficial” teaching will occur through continued undergraduate forest management work and volunteer opportunities. Overall, the forest experience will develop into an integral and memorable component of the ISU Forestry undergraduate experience—students will not forget the Brayton Forest!

The forest will impact students beyond ISU and may include community college natural resource programs (e.g., Hawkeye Community College), high school environmental science programs, and workforce development programs such as those associated with the Iowa Department of Corrections. The ultimate goal is to promote forestry as a career option (i.e., recruitment to ISU), and produce young advocates for forestry. Special focus will be placed on students from urban areas, who may have limited knowledge of forestry as a career option. The Brayton Forest will aid in producing the next generation of foresters.