Jordan Creek Area of Owen Putnam State Forest High Conservation Value Forest Proposal

Submitted by Owen-Putnam Friends of the Forest

HCVF Committee Members: Taylor Ardisson, Megan Crecelius, Scott Haulton, Brenda Huter, Andrew Reuter, Brad Schneck and Ralph Unversaw

Jordan Creek Area of Owen-Putnam State Forest High Conservation Value Forest Proposal Recommendation

The intent of High Conservation Value Forests according to the FCS-US Management Standard 2019 is to, "manage to protect and maintain their identified high conservation value attributes. In some cases, active management is consistent with these attributes, and in other cases (e.g., most old growth forests), active management is specifically precluded" (pg. 71). The Forest Stewardship Council (FSC) introduced the concept of High Conservation Value Forests (HCVFs) in 1999 to ensure identification and proper management of forest areas with exceptional conservation values (FSC 2019). In 2007 the Indiana Division of Forestry (DoF) designated an initial 15 areas as HCVF's and from 2008-2018 the DoF added 10 more. Two more properties have met the HCVF requirements from 2018-present. All these initial HCVF areas besides one are now dedicated Nature Preserves.

The FSC-US Management Standard (2019, p. 109) identifies 6 categories of High Conservation Values (HCVs) that are used to justify the designation of High Conservation Value Forests. Based on what was submitted in the proposal for the Jordan Creek Area of Owen-Putnam State Forest High Conservation Value Forest on page 5, "the area outlined demonstrates adherence to the landscape level diversity criteria, the watershed criteria, the rarity of species criteria, and the cultural criteria of the HCVF classification system." Thus, the committee took into account 4 HCVs when evaluating this proposal; HCV 1 – HCV forest areas containing globally, ***regionally***, or nationally ***significant concentrations of biodiversity values*** (e.g., endemism, endangered species, refugia), HCVF 2 – HCV forest areas containing large ***landscape level forests***, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance, HCV 4 – HCV forest

areas that proved the basic services of nature in ***critical situations*** (e.g., watershed protection, erosion control) and HCV 6 – HCV forest areas ***critical*** to local communities' traditional ***cultural*** identity (areas of cultural ecological, economic or religious significance identified in cooperation with such local communities (FSC 2019, p. 112).

We would like to address each HCV in order, starting with HCV 1, outlined in the proposal that, "the rarity of species" (proposal, p. 5) criteria is met. After performing a search on the Natural Heritage Database, we found that no rare plants or animals have been listed in the proposed area. The submitted proposal listed Ostrich Fern, *Matteuccia struthiopteris*, as being located within the area, but after a couple of field days, members of the committee did not find Ostrich fern, but did find several species of *Osmunda* ferns, and a *Platanthera* species of orchid. Ostrich fern is currently listed as a threatened species but has not been verified in the proposal location. The *Platanthera* species was not in flower during the first visit, so another visit was made, the basal leaf was found but due to the dry conditions it was not in flower, so a definite ID was not attainable.

The Division of Forestry has an ecological review process that takes place prior to management activities that occurs on their properties and makes decisions based on any rare, threatened, and endangered plant and animal species. The Division of Forestry's Procedure Manual states on page 57, "While this general management philosophy is appropriate in most cases, many rare or threatened species require special consideration when planning forest management activities. Therefore, we must often take a comprehensive approach to forest management planning by maintaining an overall healthy, sustainable forest environment while giving special consideration to species of greatest conservation need."

High Conservation Value 2 was listed in the proposal on page 5 as, "landscape level diversity criteria". The FSC-US Forest Management Standard on page 109 goes into detail about

what is specifically being looked for in these areas for different parts of the country. In the Lake States section under Central Hardwoods the criteria that could be considered as High Conservation Value 2 are,

- "Old forests/mixed age stands that include trees > 160 years old
- Intact forest blocks in an agriculturally dominated landscape (refugia)
- Intact forests >1000 ac (valuable to interior forest species)
- Protected caves
- Savannas
- Glades
- Barrens
- Prairie remnants"

Continuous Forest Inventory (CFI) data was pulled from the proposal area to determine that the average stand age is 89 years, with the oldest stand age recorded of 118 and the youngest of 71. Aerial imagery of this area from 1939 (Figure 1) shows several open areas and fields that are now forested. There are no protected caves, savannas, glades, barrens, or prairie remnants in the proposal area.

High Conservation Value (HCV) 4 is mentioned in the proposal on page 5 as, "the watershed criteria". Page 111 in the FSC-US Forest Management Standard goes into more detail on the requirements, "HCV 4 includes forests that are part of a local drinking water catchment or irrigation supply system, or is a critical source for a remote location (i.e., water is pumped to a remote location). This service may be considered critical when people are dependent on the guarantee of water for drinking or irrigation, or where the regulation of water flow guarantees the existence of fishing grounds or agricultural land on which the local people are dependent, protects

downstream communities from flooding, or provides critical protection to rare, threatened, or endangered aquatic species." The proposed area falls in the Jordan Creek-Headwaters sub watershed portion of the Jordan Creek watershed. There are several wells that fall within this sub watershed, most are inactive and are not a critical source of drinking water. The Division of Forestry states that, "Current state forest management seeks to minimize the negative impacts of forest management, recreation, and other land-use activities on water quality and quantity (IDNR 2020, p. 63). The Division of Forestry goes into more detail about watersheds in their procedures manual on page 63.

The final High Conservation Value (HCV) was 6, with the proposal stating that this area met "the cultural criteria of the HCVF classification system (p. 5). There are several remnants from the early 1900's in this area including the Dollerson homesite, a few old foundations, an old piece of equipment stamped 1903, and the gravesite of Abner Frasier. Page 111 of the FSC-US Management Standard goes into detail about the requirements for an HCV 6, "includes areas of cultural significance that have traditional importance to local indigenous people. These may be religious/sacred sites, burial grounds or sites at which regular traditional ceremonies take place. They may also include outstanding natural landscapes that have evolved as a result of social, economic, administrative, and/or religious imperative (i.e., fossils, artifacts, areas representing a traditional way of life), or areas that by virtue of their natural properties possess significant religious, artistic, or cultural association." After reviewing the above mentioned sites, it was determined that these artifacts and homesites are from the modern era and considered not traditional. The Division of Forestry (DoF) also has guidelines they follow when cultural sites like these are found. Referring to the DoF Procedure Manual on page 80, "The Division of Forestry is also conscious of the natural and cultural history present within the state forest system and manages

its properties to protect and preserve these significant sites. In order to manage the cultural resources within the system, the division has taken an active role in identifying and interpreting known sites. It is the policy of the division to avoid all significant known cultural sites during any project that results in ground disturbance. In an effort to implement this policy the division conducts an archaeological assessment of all projects in which ground disturbance may occur (e.g., timber harvests, road construction, campground improvements, etc.)".

There were also several mentions of unique geological features and seeps in the proposal. There are a few rock shelters, rock outcrops, and a handful of small seeps in portions of the proposal area. This is not surprising as this area falls in Indiana's Shawnee Hills Natural Region that borders the Escarpment Section and Crawford Upland Section. The Shawnee Hills Natural Region as described by Michael Homoya, "This unglaciated region is typified by rugged hills and large natural outcroppings of bedrock. The western half is predominantly sandstone, with limestone occupying most of the eastern portions. Rich mesic forests exist in the ravines and north facing slopes, while south and west facing slopes and ridge tops are commonly dry. Rock outcrops provide their own suite of species, as many species are restricted to such environments" (Homoya 2012, p. 20). Rock outcroppings and shelters can be seen throughout Owen and surrounding counties within the Shawnee Hills Natural Region. Adjoining to the Northeast of the proposal area is the Section Nine Seep Springs Nature Preserve that was dedicated on May 16th, 2017. This area did meet the criteria for High Conservation Value 1.

In conclusion, based on a review of the proposal and the HCV criteria found in the FSC-US Management Standard (2019), the committee does not find the proposed HCVF designation warranted for the Jordan Creek of Owen Putnam State Forest. After completing a Natural Heritage Database search and several field visits to the proposed HCVF there was one possible listed rare,

threatened, or endangered species in the area at this time (*Platanthera* spp). This area does not meet the refugia, landscape level diversity, watershed, or cultural requirements laid out by the FSC-US Management Standard. This area does contain nice features, like the homesites and geological features mentioned in the proposal, however these features are common for the natural region in which they fall.

☐ Committee recommendations accepted

☐ Committee recommendations rejected

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John R. Seifert Date

Figure 1. 1939 Aerial of OPSF with proposed HCVF Area

Owen Putnam State Forest – Jordan Creek HCVF Response to Comments

1. **Protect for future generations, recreation, hunting, more valuable wild than logged/Indiana doesn't have enough preserved areas:** Comments: 1, 2, 3, 6, 7, 8, 10, 12, 13, 16, 17, 18, 21, 22, 24, 25, 26, 29, 31, 32, 34, 35, 36, 37, 38, 39, 41, 42, 43, 46, 47, 48, 49, 51, 52, 53, 54, 55, 58, 59, 60, 64, 65, 66

   The division of forestry provides and will continue to provide recreational opportunities to the public. "Recreational activities involving wildlife are major attractions to the state forests and forest recreation areas. The state forests and forest recreation areas will allow hunting, fishing, and trapping to occur where appropriate, and under the statutes and regulations developed for these activities" (IDNR, 2020).

2. **Should not be logged to support the mitigation of climate change, carbon sequestration, water purification**: 1, 2, 8, 10, 12, 13, 14, 16, 19, 22, 23, 28, 31, 38, 43, 44, 48, 58, 60, 61, 64

   From DoF strategic plan- "In the area of climate change DoF will review tools available for forest managers to incorporate climate change considerations into decision making. Including vulnerability assessments of the State Forest system, demonstration projects and possible participation in the Central Hardwoods Climate Change Partnership" (IDNR, 2015). While growing trees do consume carbon dioxide, dead and dying trees release it. Mature trees used for wood products such as furniture, sequesters carbon dioxide for the life of that product.

3. **Need to preserve and protect primary old growth forests, they are rare in Indiana**: 2 "**old growth forests have a higher level of resilience due to the complexity of their structure and ecology**", 13 "**on the verge of old growth**", 18, 46, 47, **should protect our public lands so the flora and fauna can continue to thrive, increase biodiversity**: 1,2,9,10,12,13,18,29,32,33,38,56,58,59,60,61

   "Definitions for "old growth" and "virgin" forests often differ from state to state. In Indiana, virgin forests are those untouched by human presence or unnatural disturbance. Only a few virgin forests are found in Indiana, including Donaldson Woods, Pioneer Mothers Memorial Forest and Wesselman Woods. There are several tracts of what is considered old growth forest. These tracts of woods contain trees that are very large and very old; a hardwood forest in Indiana that contains trees 150 to 200 years old and older is often considered an old growth forest." (IDNR, 2007).

   Old growth doesn't necessarily mean there is more diversity. Old growth forests are usually defined by tree age, an oversimplification that does not guarantee recognition of

forests that will contain the highest biodiversity of species that are highly specialized to living in old forests (McMullin and Wiersma 2019). An ongoing study of the Pioneer Mothers Memorial Forest (Old-Growth) in southern Indiana found that tree species diversity has been declining for over 26 years, with an increasing importance (*I*) of shade tolerant species, such as *Acer saccharum* (sugar maple), and a decline in shade intolerant species like *Quercus* spp. (oaks) and *Carya* spp. (hickories) (Morrisey et al 2012).

4. **Historical sites, Daniel Query homestead and Dollerson Homestead, grave of abolitionist Abner Frazier and other historical and cultural sites in this area**: 2, 8, 9, 10, 11, 12, 13, 16, 18, 28, 29, 32, 33, 35, 36, 38, 39, 41, 43, 44, 48, 50, 51, 54, 65, 66

   "An assessment and clearance is required for any management activity that causes ground disturbance or impacts structures or sites over 50 years old. Properties will perform inventories of historic sites, usually homesites. Information on the site (location map, artifact, features, etc.) should be kept in the tract file and provided to the division's archaeologist and maintained within a cultural resource database" (IDNR, 2020, pg 18).

   "The Division of Forestry is also conscious of the natural and cultural history present within the state forest system and manages its properties to protect and preserve these significant sites. In order to manage the cultural resources within the system, the division has taken an active role in identifying and interpreting known sites. It is the policy of the division to avoid all significant known cultural sites during any project that results in ground disturbance. In an effort to implement this policy the division conducts an archaeological assessment of all projects in which ground disturbance may occur (e.g., timber harvests, road construction, campground improvements, etc.)" (IDNR, 2020, pg 80). For more information refer to the Indiana State Forest Procedure Manual under Section M: Cultural Resources.

5. **Unique geology and hydrology features**: 2, 8, 12, 18, 22, 29, 33, 35, 36, 37, 38, 43, 44, 48, 56

   Directly from Indiana's State Forest Procedures Manual regarding geology, "State Forest properties have many rock features such as caves and cliffs that attract enthusiasts who seek such physical challenges. Unfortunately, such areas may also contain rare and/or sensitive biological resources that could damaged by such activity. The department Cave and Karst Policy and Property Regulations provide constraints, controls, and management guidelines for these features. In general, property operations will be managed to have minimal disturbance to sensitive sites. In order to retain the open forest atmosphere, prohibitive devices, such as fences, will only be used when determined to be necessary" (p. 106-107).

   Directly from Indiana's State Forest Procedures Manual regarding hydrology, "Springs and seeps often occur when geologic formations channel water to the surface. Major

springs and seeps may often provide rare habitat. In addition, by nature, the soils in the vicinity of such features may be soft and vulnerable to traffic and impacts. In general, property operations will be managed to have minimal disturbance to sensitive sites" (p. 107).

6. **Large contiguous areas of forest are uncommon in Indiana/want to preserve a larger ecosystem**: 4, 8, 25, 26, 29

   There are 4 large contiguous forest stands in Owen County totaling about 51,000 acres, Owen County also has the most Classified Forest and Wildland (CFW) acres in Indiana with 35,383 acres classified. There are several other examples throughout the state of large contiguous forest stands that include several Forestry Properties, State Parks, Fish and Wildlife Areas, as well as the Hoosier National Forest.

7. **Meets requirements for HCVF 1, 2, 3, and 4/should be an HCVF**: 5, 15, 20, 27, 30, 40, 62

   The Division of Forestry has assembled a committee of both DoF and Division of Nature Preserves personnel to thoroughly review and examine the proposed HCVF area. Once the committee has reviewed, they will make a recommendation to the State Forester who will make the final decision.

8. **Home to several RT&E species of mammals, birds, and plants:** 6, 8, 9, 12, 16, 18, 22, 24, 25, 26, 27, 29, 33, 36, 38, 43, 48, 50, 56, 61

   A natural heritage database search was ran on 3/10/2023 that revealed no RT&E species in this area. The only thing that did appear was a known seep and upland mesic forest community in the existing Section Nine Seep Springs Nature Preserve. The committee went out on a couple of site visits in search of seeps and RT&E species in the area and did fine a few small seep sites but did not find any RT&E species.

Literature Cited

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Appendix I : High Conservation Value Forest Committee Members

Taylor Ardisson, Owen-Putnam State Forest Property Manager. Taylor graduate from Southern Illinois University of Carbondale in 2016 with a bachelor's degree in Forestry with a specialization if wildlife management. Taylor took a forester position at Withlacoochee State Forest in Florida for 2.5 years where he managed ~36,000 acres. His passion for hardwood forest management in the Midwest lead him to Jackson-Washington State Forest in October of 2018 as a resource specialist. Here he practiced hardwood forest management via timber stand improvement, marking timber, invasive species treatment and started to learn how to manage facilities. In October of 2020, Taylor took his current role of property manager at Owen-Putnam.

Megan Crecelius began working for the Indiana DNR Division of Forestry in February 2016 as an Inventory Forester and started as Forest Ecologist in late October 2022. She received her Bachelor of Arts in Biology (Ecology & Conservation emphasis) from Franklin College in 2014 and completed a Master of Science in Botany from Ball State University. During her time at Franklin, she completed and published an undergraduate study of the population ecology of the Puttyroot Orchid (*Aplectrum hyemale*) and tended to the college's greenhouse. At Ball State University, Megan preformed a floristic inventory and Floristic Quality Assessment of Hayes Arboretum's constructed wetland and associated woodlands as her thesis project as well as assisting in other floristic inventories with her classmates and professor. During her time there she also taught Intro to Botany labs and worked in the university's herbarium.

Scott Haulton, Forestry Wildlife Specialist, Indiana DNR, Division of Forestry: Scott brings over 25 years of relevant professional experience to his role with the HCVF nomination review committee. Scott's professional experience spans the fields of forest management, public land management and natural area restoration, wildlife ecology research, and imperiled species impact assessment, particularly as it relates to forest management and community restoration. During his more than 15 years with the Indiana Division of Forestry, Scott's primary responsibilities have focused on managing the State Forest wildlife habitat management program and providing guidance to the DNR and the public on issues related to forest management and wildlife. Scott's academic training includes a Bachelor of Science in Environmental and Forest Biology from the State University of New York College of Environmental Science and Forestry and a Master of Science in Wildlife and Fisheries Sciences from Virginia Tech. He is recognized as a Certified Wildlife Biologist by The Wildlife Society.

Brenda Huter attended Carroll College, now Carroll University, in Waukesha, Wisconsin majoring in Biology and Geography. She spent her summers doing hands-on resource management and environmental education for the Wisconsin Youth Conservation Corps program. In 1993, Brenda came to Indiana for graduate school at Indiana University where she obtained a Master of Environmental Science - Applied Ecology and a Master of Public Affairs – Environmental and Natural Resources Management. Brenda began her career with Indiana Department of Natural Resources (DNR) – Division of Forestry as a GIS intern during graduate school. In 1997 she joined the DNR full time as a resource specialist at Yellowwood State

Forest focusing on environmental education, recreation, watershed management, special species and cultural site management, GIS, and data management. In 2004, Brenda transferred to the Cooperative Forest Management staff where she manages programs that promote conservation of privately owned forests: Classified Forest & Wildlands Program, green certification, and the Forest Legacy Program.

Andrew Reuter received his Bachelor of Arts in Outdoor Resource and Recreation Management at Indiana University in 2005. Throughout his undergraduate tenure, he worked seasonally for the US Forest Service - primarily within the Charles C. Deam Wilderness. Andrew began his IDNR career in the 2007-08 spring seasons as a seasonal firefighter, participating on nearly 100 prescribed and wildfires across Indiana in those two seasons alone. After a short duration working for Student Conservation Alliance and the National Park Service in Virginia, and beginning his Masters work at the University of Virginia Tech, he returned to start his fulltime career as a Wildfire Specialist with Division of Forestry. He successfully completed his Masters in Natural Resources through the University of Idaho, where he focused his studies on Fire and Forest Ecology. After three years with DoF, and a year as Natural Resources Coordinator at Camp Atterbury, he transitioned to DNR Division of Nature Preserves as the Central Region Ecologist. From 2014-2022 he spent his time managing State Dedicated Nature Preserves and natural areas across 26 counties. He engaged in multiple Threatened and Endangered species monitoring and enhancement efforts, plant and community inventories, natural areas registers, environmental site reviews and Potential Dedication assessments. He led multiple actions throughout the Central Region to maintain, protect, enhance, and restore natural communities, utilizing prescribed fire, invasive species controls, and forest stand management. He was recently promoted to Assistant Director for the DNR Division of Nature Preserves.

Brad Schneck began working for the Indiana DNR Division of Forestry in 1998 as a property Forester. He briefly left the division in 2022 to serve as -Conservation Director at Camp Atterbury Joint Maneuver Training Center, before returning in 2007 as Property Manager at Jackson-Washington State Forest and Starve Hollow SRA. He became Assistant State Forester – Property Section in 2019. He received his Bachelor of Science in Forestry from Purdue University.

Ralph Unversaw began working for the Indiana DNR Division of Forestry in November 1983 as a Resource Specialist at Yellowwood State Forest. Then in November 1991 he started as District Forest serving Monroe and Owen Counties. He received her Bachelor of Science in Wildlife Management and Forestry from Purdue University in 1983.