

Ohio DNR – Division of Forestry High Conservation Value Forest Assessment

A. Purpose

The purpose of this assessment document is to describe the steps taken by the Ohio DNR – Division of Forestry to assess the presence of High Conservation Value Forests (HCVF), as defined by FSC, on state forests and to present the results of the consultative process as well as the data analysis.

For context, the Division of Forestry has a “zoning” system on all state forests. Zones define the types of management activities that are either allowed or prohibited within each zone. The results of the HCVF assessment were used to determine specific acreage that should be designed in state forest Zone 1: High Conservation Value Forests. Zone 1 is further subdivided into 1A: Natural Area, 1B: Cultural/Historic Area, 1C: Wilderness Area, and 1D: Restoration Area.

B. Data Considered during the HCVF Assessment

The Division’s zoning system has been in place for more than 20 years. All state forests are zoned. Historically, there have been 5 major zones with most zones having corresponding sub-zones. In order for zones to be revised, the revision must first meet a number of approvals, be reviewed and approved by the Forest Advisory Council, and be subjected to public scrutiny and comment. In order to fully comply with FSC certification it became necessary to undergo a comprehensive zone re-alignment and revision. This revision reduced the number of zones from 5 to 4 and also produced new sub zones in order to deal with HCVF and restoration areas more comprehensively. This effort is detailed below as our first step in the HCVF assessment.

Step 1: Zone Re-alignment and Revision

The first step in our HCVF assessment was completed internally through a comprehensive zone re-alignment and revision process. Desiring to fully comply with the FSC standard, it became necessary to revise our zone descriptions and to re-align acreage into the appropriate zones, including a HCVF zone. This process began by doing a gap analysis of our existing zone maps and descriptions with the FSC standard. The zone descriptions were revised to be in compliance with the standard and our strategic objectives for state forest management. Once the zone descriptions were revised, acreage across state forests were re-aligned using GIS techniques. This re-alignment was based on local forester’s expert knowledge and over 40 years of compartment cruising, and the use of the FSC-US HCVF Assessment Framework. Our 2009 stratified inventory dataset was also used as well as 2008 color-infrared imagery. At the conclusion of this step, foresters had an opportunity to review the new zone maps and descriptions for a final revision.

Step 2: Natural Heritage Data

The Ohio Biodiversity Database (formally the Natural Heritage Database) was used to provide locations of concentrations of biodiversity attributes most notably concentrations of RTE species or habitat. The Nature Conservancy (TNC) and the Ohio DNR-Division of Natural Areas and Preserves (DNAP) consulted on this step of the assessment. DNAP used GIS techniques to map areas of high concentrations of RTE species that lie within our state forest boundaries. Further, DNAP also reviewed an earlier assessment completed several years ago that identified unique areas of biodiversity on state forests that at one time were being considered as possible state-designated nature preserves. The results of the analysis of these two datasets were given to the Division. The Division then further revised our zone maps to include additional areas into the HCVF zone.

Step 3: Ohio DNR-Division of Wildlife Strategic Goals and Forest Focus Areas.

The Ohio DNR-Division of Wildlife was consulted for their input on the location and management options of HCVF on state forests. The DOW endangered species program submitted maps to the Division of possible locations of RTE mammals and reptiles. The DOW rattlesnake biologist also provided input on broad locations of den sites of the state-endangered timber rattlesnake. DOW also consulted their state wildlife action plan and their forest focus area plans. Two state forests, Shawnee and Zaleski, have been identified by DOW as state forest focus areas and have specific DOW-produced objectives for those forests. These data and plans were submitted to the Division for consideration and further revision of our HCVF zone maps.

Step 4: The Forest Advisory Council.

The Forest Advisory Council (FAC) is a Governor-appointed committee that gives advice and consent to the Chief of the Division of Forestry. The FAC meets quarterly. At a regularly scheduled quarterly meeting of the FAC, the Division presented not only the draft results of the HCVF assessment but also the entire zone re-alignment process and results. Summaries of acreage and zone descriptions were also presented to the council for comment. The comments received were incorporated into our understanding of HCVF and they were evaluated by the Division Integration Committee.

Step 5: Consultation with other Division of Forestry partners

The Division directly solicited input from experts in forest ecology and/or natural resources who work for some of our most important partners and other recreation user groups. Experts from the USFS Delaware Research Laboratory, the USFS Wayne National Forest, P.H. Glatfelter Company, the Ohio State University, The Ohio Horseman's Council, The Buckeye Trail Association, Crane Hollow, and The Ohio Forestry Association were contacted for an opportunity to provide input in the identification and management options of HCVF on state forests.

Step 6: Public Meeting

A formal public meeting was held to present not only our HCVF assessment but also the elements of our 5-year forest-specific management plans. A statewide news release was circulated to announce the meeting. The Division gave a presentation on the HCVF assessment process, the draft results, and the management options for HCVF areas on state

forests. At the conclusion of the presentation, the Division opened the floor for questions, comments, and discussion. The Division recorded comments as part of the meeting notes. For over 90 minutes, the 23 attendees offered their input. The comments were reviewed by the Division Integration Committee for possible impact or revisions to the HCVF results.

C. Stakeholders Consulted during the HCVF Assessment

The list below represents agencies or experts who played an active role in the HCVF assessment. While there were many individuals invited, only a few agencies, NGO's and/or activist groups elected to play an active or somewhat active role in the assessment process. Active consultation included meetings, data, comments, and discussion. Most of the groups invited to participate in the HCVF assessment were only somewhat active or not at all. Their participation may have only included a few comments or input after our public meeting. The Ohio DNR – Division of Wildlife and Division of Natural Areas and Preserves provided the backbone of the assessment consultation.

Active in the HCVF assessment

ODNR-Division of Wildlife
ODNR-Division of Natural Areas and Preserves
The Nature Conservancy
The Ohio State University
Ohio University
USFS-Delaware Research Laboratory
The Forest Advisory Council
Crane Hollow
Sierra Club
The Buckeye Forest Council

D. Conclusions and Results of the HCVF Assessment

The HCVF assessment resulted in the designation of 16,156 acres as High Conservation Value Forests that lie within Ohio State Forests. HCVF designations on state forest include:

- ***The Shawnee Wilderness Area*** that was codified in law in 1972 as a “Wilderness”.
- ***Large portions of Mohican State Forest*** where the Division and interest groups have agreed to manage with a desired future condition of “old growth”.
- ***Portions of Maumee State Forest***, which is situated within the Oak Openings region, one of the nation’s most rare and unique ecosystems. These areas are identified for future restoration efforts.
- Several acres of bottomland / floodplain forest along ***Raccoon Creek at Zaleski State Forest***. Floodplain forests are an important component of Ohio forests that are critical to ecosystem function.
- ***Three drainages at Shawnee State Forest*** identified by DNAP as having important concentrations of RTE species.
- ***Two drainages at Hocking State Forest*** identified by DNAP as having important concentrations of RTE species.

- *Large portions of Beaver Creek State Forest* that lie immediately adjacent to Little Beaver Creek - a designated wild and scenic river.

Appendix A: HCVF Assessment Framework Matrix

The matrix below is based on the FSC-US HCVF Assessment Framework.

HCV 1: Forest areas containing globally, regionally, or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).	
Guiding Questions	DOF Conclusion
1.1 Does all or part of the FMU contain an area that is legally protected or managed primarily for concentrations of biodiversity values that are significant at the ecoregion or larger scale, or is such an area proposed for protection?	Yes. The Shawnee Wilderness Area – over 8000 acres of legally protected wilderness area.
1.2 Does all or part of the FMU contain an area with significant concentrations of rare, threatened or endangered species or rare ecological communities, endemic (range restricted) species and / or natural communities that are significant at the ecoregion scale?	Yes. Portions of Maumee State Forest – prairie remnants; portions of drainages at Shawnee State Forest, and Hocking State Forest have been identified by data analysis to have important concentrations of RTE species.

HCV 2. Forest areas containing globally, regionally or nationally significant 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.	
Guiding Questions	DOF Conclusion
2.1. Does all or part of the FMU contain a globally, regionally or nationally significant large landscape-scale forest where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance? What would happen to regional biodiversity if the characteristics of this forest (e.g., age class structure or relative species abundance) were significantly altered?	No. All state forests have had significant anthropogenic influences such that datasets and expert knowledge show that they have been significantly altered and viable populations of most if not all naturally occurring species do not exist.
2.2. Does all or part of the FMU contain a landscape-scale forest recognized as being significant to biodiversity conservation at the ecoregion scale because it contains landscape-scale biodiversity values that are not present on other forests due to landscape-level modifications to surrounding lands, (such as	Yes. The Shawnee Wilderness Areas holds one of only 2 viable populations of the state endangered timber rattlesnake. Based on datasets considered and the extensive anthropogenic influences and altered fire regimes, we do not find any other

land use conversion or forest management practices that have significantly altered forest biodiversity values)?	acres that meet this definition.
What would happen to regional biodiversity if the characteristics of this forest (e.g. age class structure or relative species abundance) were significantly altered?	

HCV 3. Forest areas that are in or contain rare, threatened or endangered ecosystems.

Guiding Questions	DOF Conclusion
3.1. Does the FMU contain old growth stands?	No. Based on the datasets considered we do not find any type 1 or type 2 old growth. However, Mohican State Forest has a system of zones that has a desired future condition of “old growth”. Therefore, given enough time, portions of Mohican State Forest will be managed as an “old growth” forest.
3.2. Does the FMU contain or is it part of a roadless area > 500 acres in size or that has unique roadless area characteristics?	Yes. The Shawnee Wilderness Area is over 8000 contiguous acres of primitive use only with no roads.
3.3. Does the FMU contain any other rare, threatened, or endangered ecosystems?	Yes. The Maumee State Forest lies within the “Oak Openings” ecosystem; one of the nation’s most unique ecosystems. DOF has zoned certain prairie remnants as HCVF and further will designate additional acres as HCVF/Restoration areas as projects and budgets present opportunities.

HCV 4. Forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control).

Guiding Questions	DOF Conclusion
4.1. Is all or part of the FMU owned or managed for the primary purpose of providing a source of community drinking water?	No.
4.2. Does all or part of the FMU play a “critical watershed role” in protecting community drinking water supplies?	No.
4.3. Does all or part of the FMU include extensive floodplain or wetland forests that are critical to mediating flooding or in controlling stream flow regulation and water quality?	Yes. The major floodplain forest types on state forests have been zoned as HCVF. Most notably Raccoon Creek floodplain at Zaleski State Forest, portions of Pine creek at Hocking State Forest, and portions of Beaver Creek State Forest.
4.4. Is all or part of the FMU critical to	Yes. Beaver Creek State Forest lies along the

control erosion, landslides, or avalanches that would threaten local communities?	breaks of Little Beaver Creek - a national wild and scenic river. While erosion would not threaten a local community, it would diminish the wild and scenic river status; therefore the entire breaks of the river have been zoned as HCVF.
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HCV 5. Forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health, well-being).

Guiding Questions	DOF Conclusion
5.1. Is all or part of the FMU fundamental to the basic needs of a local community	No. While an argument could be made that some state forests are fundamental to local wood industries and recreation and tourism economies, they do not meet the technical definition of “basic human needs”.

HCV 6. Forest areas critical to local communities’ traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Guiding Questions	DOF Conclusion
6.1. Does all or part of the FMU contain specific forest area that is critical to the tribe and local community’s cultural identity?	Yes. Several state forests have Indian mounds built by the Hopewell and Adena cultures during pre-historic times. These Indian mounds are mapped on the Division’s “Special Sites” layer and protected from soil disturbance activities and are managed as “Special Sites”. Since the size of the mound areas are small (< than 1 acre in size) it is better to track them as special sites instead of HCVF zones. However, they are managed as HCVF areas.
6.2. Are significant cultural features created intentionally by humans present?	No. Indian mounds were created during pre-historic times.
6.3. Are outstanding natural landscapes present that have evolved as a result of social, economic, administrative, and/or religious imperative?	No. There are sites of this nature in Ohio, but they do not exist on the FMU.

Appendix B: List of HCVF Areas on State Forests

A list of High Conservation Value Forest areas:

Zone ID	Forest	Acres	Comments	HCV
1A	Beaver Creek	623	Beaver Creek watershed	4
1A	Hocking	93	Cantwell Cliffs area	1, 4
1A	Hocking	152	Pine Cr / Conkles Hollow / Crane Hollow	1, 4
1A	Maumee	41	Muck Farm prairie remnant	1, 2
1A	Maumee	7	Muck Farm prairie remnant	1, 2
1A	Shawnee	330	Snake Hollow	1
1A	Shawnee	806	Shaw Hollow	1
1A	Shawnee	237	Rock Run	1
1A	Zaleski	1651	Raccoon Creek Bottom	1, 4
1B	Dean	4	Cultural area	6
1B	Harrison	1	Cultural area	6
1B	Shade River	2	Cultural area	6
1C	Shawnee	8354	Shawnee Wilderness Area	1, 2, 3
1D	Maumee	??	Oak Openings Restoration	2, 3
A	Mohican	2,080	Mohican zone A - Old Growth Mgmt	3
B	Mohican	1,774	Mohican zone B - Future Old Growth Mgmt	3

Total Acres 16,156

Appendix C: Summary of comments and input received during the HCVF Assessment and DOF Response.

Comment or Input Received	Origin of the Comment or Input	DOF Response or Action
Based on the Biodiversity Database several areas of concentrations of RTE species exist on state forest. These areas are recommended to be included in the HCVF zone.	ODNR-Division of Natural Areas and Preserves	Almost all areas identified by DNAP were included in the HCVF zone.
Based on an earlier assessment of state forests conducted by DNAP to review areas that are unique habitats, a small number of sites were identified as being unique.	ODNR-Division of Natural Areas and Preserves	Yes. All areas identified by DNAP were included in the HCVF zone.

Would DOF consider including them in the HCVF zone.		
A review of RTE mammal and aquatic species locations and consultation by DOW rattlesnake expert indicate areas that should be considered.	ODNR-Division of Wildlife	Areas for consideration produced by DOW were included in the HCVF zone.
Hemlock forests and hemlock trees are important and should be protected and included in the HCVF zone	Citizen	Most stands of eastern hemlock are scattered and small and are located in steep, rocky drainages. These areas are either protected in the Division's zone 3A:Resource Protection which prohibits clearcutting and limits equipment operation; or they are located in areas where silvicultural activities are not feasible or practical. The presence of hemlock trees alone does not fully justify an area to be zoned as HCVF.
DOF needs to consider old trees as worthy of protection.	Citizen	DOW has a retention policy and has language in our manual that requires protection of "legacy trees". DOF believes this is sufficient to address this comment.
Roughly 17,000 acres set aside as HCVF is too small in terms of all of Ohio.	Citizen	Over 16,000 acres are zoned as HCVF on state forests or approximately 10% of the land base. This does not include the rest of DNR lands, federal lands, or other public lands. The scope of protected lands in Ohio is far greater.
Concerns about neo-tropical migrating bird conservation and nest predation from cowbirds.	Citizen	DOF endeavors to provide RTE species training and continuing education for foresters on possible activity impacts to a host of RTE species. We believe our existing HCVF zones juxtapositioned with other

		intensive management zones has a positive effect on neotropical migrating birds and supported by current research.
Objection to the support of early successional habitat by USFS and DOF and the need to focus on more mature trees and interior forests.	Citizen	DOF has a desired future condition strategy that promotes older forests as well as HCVF zones that include the Shawnee Wilderness area.
Fragmented forests are less resistant to climate change and invasives.	Citizen	DOF has received training on climate change impacts to forest management, but this is not directly material to the HCVF assessment.
All forests should be protected and management should be prohibited whether it is HCVF or not	Citizen	DOF has a statutory obligation for forest management and is committed to FSC and SFI certification.
Concerns about recreation and tourism economies.	Citizens	DOF is committed to public recreation and multiple use management.
All of Shawnee State Forest should have a rare plant survey conducted.	Citizen	DOF relies on the best available data and further conducts pre-activity assessments to determine possible impact to rare species. Budgetary and operational limitations influence this type of survey.
HCVF areas should be permanently protected by law	Citizen	DOF is committed to FSC certification and believes that it can more than adequately protect HCVF areas as well as monitor their condition. The process by which a new law is codified would take longer than desirable.
Thank you for setting aside additional areas near Crane Hollow NP.	Crane Hollow	DOF lands near Crane Hollow are important riparian communities and meet the definition of HCVF.
Timber values are less than eco-system values according to one publication and should be considered more important rather than timber	Citizen	HCVF areas will not receive any significant timber management.

considerations.		
Comments regarding whether harvest levels in Ohio are sustainable and objection to exporting products to China	Citizen	FIA data and state forest data show Ohio and state forest harvest levels are sustainable. DOF does not control overseas exporting.
Forests that <i>likely</i> have rare species should be considered for HCVF regardless of what records in the heritage database show.	Citizen	DOF endeavors to use the best science available and conducts pre-activity assessments.
Old forests should be considered that are over 100 years old for HCVF.	Citizen	DOF's data does not show the presence of any type 1 or type 2 old growth, however, trees over 100 years old may exist. These areas by themselves do not meet the standard of HCVF.
HCVF areas need a buffer zone for management purposes.	Citizen	DOF HCVF designations include adequate buffering of the sensitive features contained within the area. Buffers are confusing for land managers, therefore, DOF attempted to ensure the areas were large enough so that a buffer would be inclusive of the area.
Areas that have un-common species should be protected. Not just areas that have rare species.	Citizen	DOF believes this approach would be subjective.
Recommend the following management options for HCVF: 1) prohibit logging, 2) prohibit ATV use and limit to few trails, 3) promote deer hunting, 4) control invasives with directed application of herbicides.	Citizen	DOF management options for HCVF are quite similar to the recommendations given here with the exception of potential salvage efforts due to catastrophic weather event or for restoration purposes.
A specific area on both sides of King Hollow at Zaleski SF should be considered for HCVF due the diversity of uncommon speices present	Citizen	DOF designated the floodplain adjacent to the creek in question in zone 3A:Resource Protection instead of HCVF since this area does not meet the technical definition of

		HCVF; however, the area is unique and DOF commits to further evaluate the area prior to any site disturbing activities.
A suggestion was made to include any stands that are over 120 years old as candidate HCVF areas.	Citizen	DOF wishes to evaluate this suggestion further. Our initial review of our inventory data suggests that these stands do not exist currently. However, certain areas (Mohican SF) have a DFC of old growth and may in the future meet this suggestion.