



File Code: 2060

Date: November 2, 2000

Greetings:

You are invited to comment on a proposed ecological analysis project for the Hoosier and Shawnee National Forests. We would like to know if you have, or know about, any information that would be useful in this analysis or have suggestions to improve the analysis?

The Hoosier and Shawnee share some of the same subregions and ecosystems. Both forests are in the early stages of plan revisions and would benefit from having better information on forest landscapes. It is also the first step in assessing species population viability for forest plan revision.

An ecological analysis is a scientific assessment of the characteristic composition, structure, and processes of ecosystems. The analysis crosses ownerships. Within ecosystems, their characteristic species diversity and ecological processes, such as productivity will be analyzed. Because ecosystems are dynamic and variable, the concept of "historic range of variability" (HRV) is used to characterize the variation and distribution of ecological conditions occurring in the past. Both historical and current vegetative conditions across the landscape will be studied, and the two conditions compared.

We propose to address the following topics:

1. What is the appropriate scale to analyze? We propose to include the following ecoregions in the analysis: Interior Low Plateau - Shawnee Hills, Interior Low Plateau - Highland Rim (subsections Mitchell Karst Plain and Brown County Hills), Ozark Highland (subsections Mississippi River Alluvial Plain and Illinois Ozarks), and Upper Gulf Coastal Plain (subsections Cretaceous Hills and Ohio and Cache River Alluvial Plain). A map is enclosed delineating these ecoregions.
2. What are the historical vegetative conditions (HRV)?
3. What are the current vegetative conditions and trends?
4. What changes in forest vegetation have occurred in response to human-caused disturbances or natural processes?
5. What are the potential effects of the presence or absence of fire on forest health?
6. What effects have native and exotic pests had on forest ecosystems?
7. What effects have current and past management practices had on the health and integrity of forest vegetation?
8. What future conditions and trends can we foresee?
9. Map land management status (ownership and land use).
10. Describe and map disturbance regimes (size, frequency, and intensity) and other significant ecological processes.
11. Establish criteria for identifying "species at risk" and other categories (unique habitats, communities, regional and other narrow endemics, etc.) considered in need of conservation.
12. What plant and animal species occur and what are their habitat associations? As well as,
 - 12.1. What are the status, trends, and spatial distributions of terrestrial habitats and wildlife and plant populations for: (a) federal threatened and endangered species, (b) viability concern species, (c) species associated with rare habitats, (d) species for which there is high management and public interest, and (e) species considered to be true ecological indicators?
 - 12.2. What habitat types, habitat parameters, and management activities are important for maintaining



viable populations of the above species?

- 12.3. What habitat conditions are needed in the ecological analysis area to: (a) conserve populations of threatened and endangered and viability concern species, (b) maintain existing species and community diversity, and (c) provide sustainable levels of species populations on national forests?

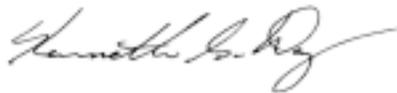
Individuals from Purdue University, Southern Illinois University, Indiana Department of Natural Resources – Division of Nature Preserves, Indiana University, The Nature Conservancy of Indiana, State and Private Forestry, and North Central Experiment Station have agreed to contribute to the analysis in cooperation with representatives from the Hoosier and Shawnee National Forests. A list of team members is attached. We expect to also need assistance or information from other universities and state agencies.

Pending further input from the public, the team members have agreed on which questions they will address and a final document is expected by December 31, 2001. Eventually, the results of the ecological analysis and population viability assessments, and other analysis such as ecological land type phase analysis, will be examined to determine how, or if, the desired future conditions outlined in the existing forest plans need to be modified to provide for population viability within the capabilities of the forests.

If you have questions about the analysis please contact either Kelle Reynolds on the Hoosier National Forest (812-277-3574) or Steve Widowski on the Shawnee National Forest (618-658-2111). Please send comments or additional suggestions to improve the analysis, to the address on the letterhead, attention Forest Plan Revision. We would appreciate receiving any input into the structure of the analysis or information available by December 31, 2000.

We are excited about the knowledge and insight this study will provide in ecological communities and populations. We will keep you informed as we work our way through the analysis.

Sincerely,



KENNETH G. DAY
Forest Supervisor
Hoosier National Forest

FORREST STARKEY
Forest Supervisor
Shawnee National Forest

Enclosures

Enclosure 1

The ecological analysis team is comprised of the following individuals:

Kelle Reynolds – Hoosier National Forest Contact

Steve Widowski – Shawnee National Forest Contact

Dr. George Parker – Purdue University Forest Ecologist. He will address questions 2, 3, 4, 5, 7, 8, and 10 for the vegetation in Indiana.

Dr. Charles Ruffner – Southern Illinois University Forest Ecologist. He will address questions 2, 3, 4, 5, 7, 8, and 10 for the vegetation in Illinois and Kentucky.

Indiana University – Will provide the maps for other team members and the analysis as a whole and address topic 9

Dr. Matthew Nicholson – Cooperative Wildlife Research Laboratory at Southern Illinois University. He will address question 12 for animals.

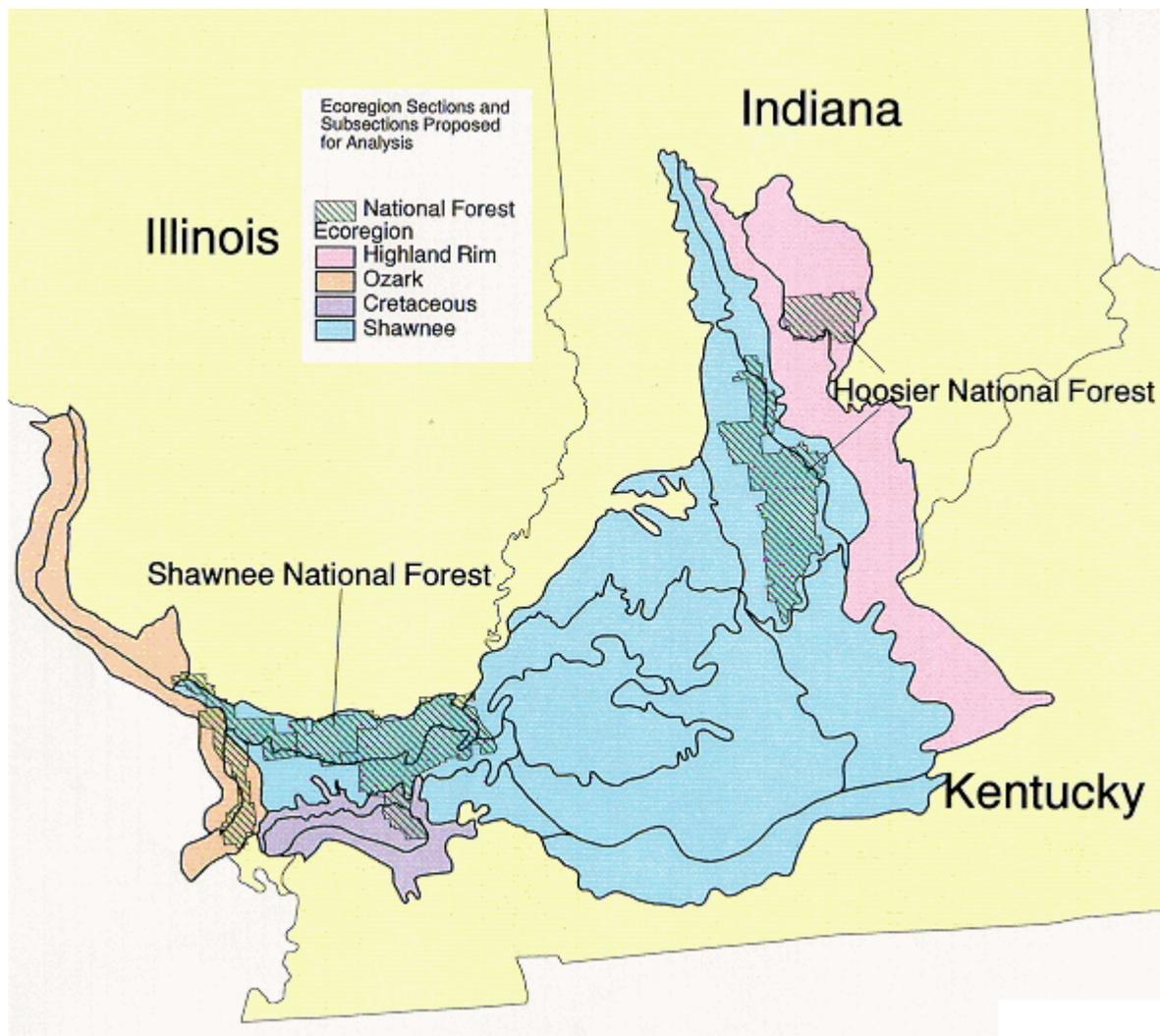
Mike Homoya - Indiana Department of Natural Resources: Division of Nature Preserves. Mike will address question 12 for plants.

John Shuey - The Nature Conservancy of Indiana will address topic 11.

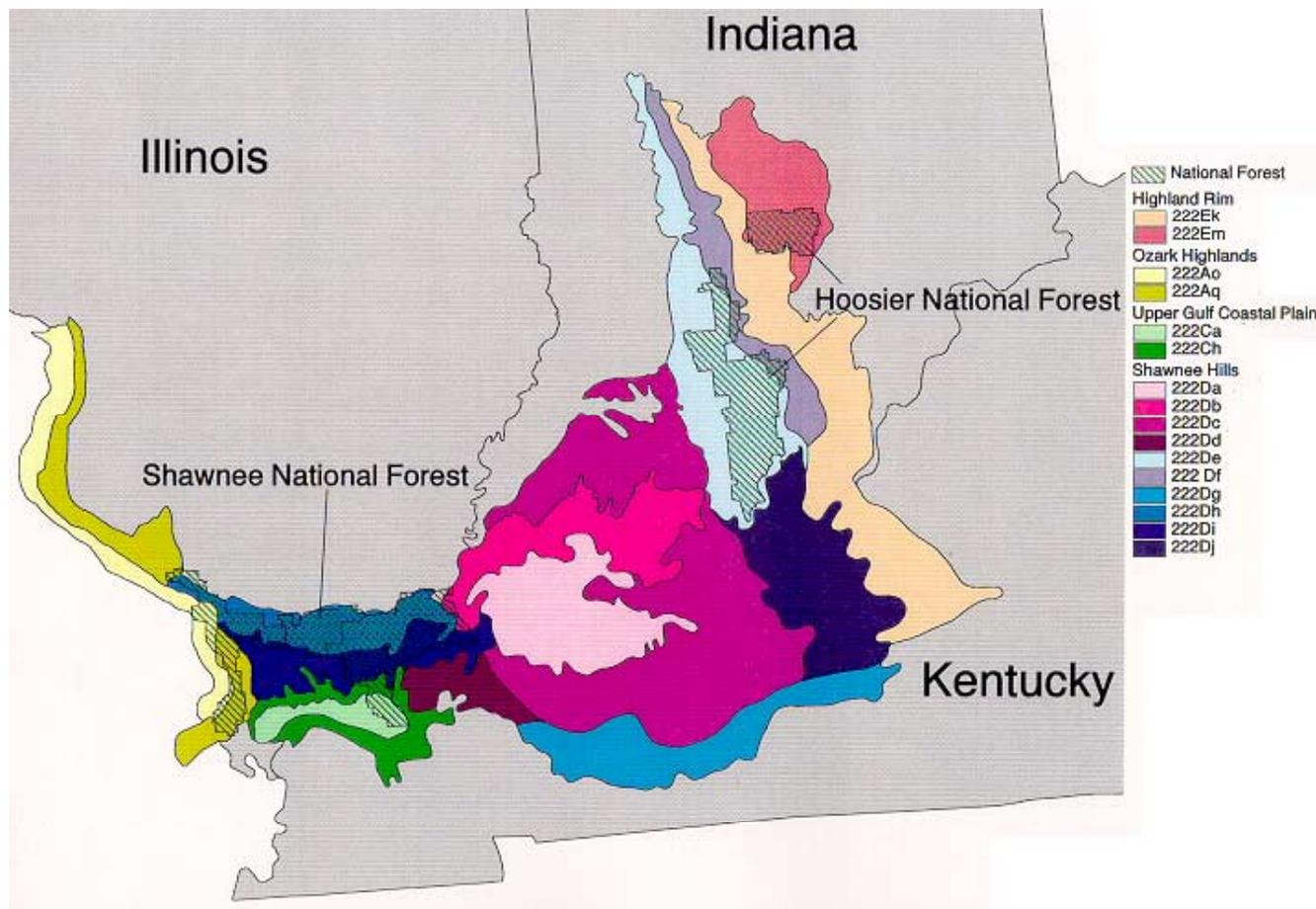
USFS State and Private Forestry will address question 6.

USFS North Central Research Station will provide a writer/editor to pull together all of the reports and create a document summarizing the ecological analysis.

Enclosure 2: Ecoregion Sections Proposed for Analysis



Enclosure 3: Ecoregion Subsections proposed for analysis



Ecoregion Subsection Titles

Interior Low Plateau, Highland Rim Subsections

- 222Ek – Mitchell Karst Plain
- 222Em – Brown County Hills

Ozark Highland Subsections

- 222Ao – Mississippi River Alluvial Plain
- 222Aq – Illinois Ozarks

Upper Gulf Coastal Plain Subsections

- 222Ca – Cretaceous Hills
- 222Ch – Ohio and Cache River Alluvial Plain

Interior Low Plateau, Shawnee Hills Subsections

- 222Da – Interior Western Coal Fields
- 222Db – Lower Ohio-Cache-Wabash Alluvial Plains
- 222Dc – Outer Western Coal Fields
- 222Dd – Marion Hills
- 222De – Crawford Uplands
- 222Df – Crawford Escarpment
- 222Dg – Southern Dripping Springs
- 222Dh – Greater Shawnee Hills
- 222Di – Lesser Shawnee Hills
- 222Dj – Northern Dripping Springs