File Code: 1570  
Route To:  
Date: May 30, 2012

Subject: Appeal of the Decision Notice and Finding of No Significant Impact for the Uniontown South Restoration Project Environmental Assessment, Tell City Ranger District, Hoosier National Forest, Appeal # 12-09-12-0027 A215

To: Appeal Deciding Officer, Forest Supervisor Melany Glossa

This letter documents my recommendation on the disposition of the appeal filed by Mark Donham, on behalf of RACE and Ernie Reed, on behalf of Heartwood. One Notice of Appeal (NOA) was received was on behalf of both Appellants, therefore my Appeal Reviewing Officer recommendation will respond to both.

The Responsible Official selected Alternative C, which includes commercial and non-commercial vegetation management on approximately 1,947 acres and prescribed burning on 1,828 acres; construct 7 miles of new road, re-construct 11 miles of existing road, maintain 6 miles of existing road; construct 5 miles of temporary roads, and decommissioning 2 miles of road.

My review was conducted pursuant to, and in accordance with 36 Code of Federal Regulations (CFR) 215.19 to ensure the analysis and the decision is in compliance with applicable laws, regulations, policy, and orders. The appeal record, including the Appellants’ objections and recommended changes, has been thoroughly reviewed. Although I may not have listed each specific issue, I have considered all the issues raised in the appeal and believe they are adequately addressed below.

The Appellants allege violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), Federal Advisory Committee Act (FACA), and the Endangered Species Act (ESA). The Appellants further allege that this should be considered a major federal action significantly affecting the human environment based upon NEPA regulations (40 CFR 1508.27) significance criteria and an EIS should have been prepared for the project. The Appellants allege that this project violates the public will and cuts the public out of the process and request that this project be withdrawn immediately. An informal disposition meeting was held, but no resolution of the issues was reached.
APPEAL REVIEW AND RESPONSE

Issue 1: Public comments not fully considered (NOA, pp. 1-2). The Appellants state that public comments were not fully considered for the Uniontown South Restoration Project. The Uniontown South Restoration Project Interdisciplinary Team developed this project in accordance with the Hoosier National Forest Land and Resource Management Plan (USDA Forest Service, 2006) which is in compliance with both the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA).

Response: As documented in the Project Record (PR), all public comments received by the Hoosier National Forest (HNF or Forest) were considered and issues were identified based on the public comments that were received. The response to Initial Comments is documented in PR B16 and the response to comments received during the 30-Day Comment Period is documented in PR B41.

According to the Council on Environmental Quality (CEQ) guidelines the public comment period is not a public vote. CEQ states that comments that are similar in nature may be grouped together.

“If a number of comments are identical or very similar, agencies may group the comments and prepare a single answer for each group. Comments may be summarized if they are especially voluminous.” (PR, H1 http://ceq.hss.doe.gov/nepa/regs/40/20-29.HTM)

The Appellants further contend that this project is not consistent with NFMA as it relates to public response to the proposal. NFMA 1976 sec. 14 states:

“Public Participation and Advisory Boards
Sec. 14. Public Participation and Advisory Boards.--(a) In exercising his authorities under this Act and other laws applicable to the Forest Service, the Secretary, by regulation, shall establish procedures, including public hearings where appropriate, to give the Federal, State, and local governments and the public adequate notice and an opportunity to comment upon the formulation of standards, criteria, and guidelines applicable to Forest Service programs.”

This provision is applicable to development of forest plans. The 2006 Hoosier National Forest Land and Resource Management Plan (Forest Plan) was revised in accordance with the public participation requirements of the 1982 planning regulations. The Forest Service developed policies regarding public participation. These can be found in the Forest Service Handbook 1909.15 Chapter 10, pp 17 – 21. The Uniontown South project record documents the public scoping efforts in b_41 Responses to Public Documents. The Uniontown South Restoration project public scoping and comment efforts are in compliance with applicable policies concerning public participation. Further, the Responsible Official documented the consistency of this project with NFMA in the DN/FONSI (DN, p. 6) by finding:
“National Forest Management Act Requirements
All proposals involving the manipulation of the tree cover for any purpose comply with NFMA. My reasons for making this determination follow…’ (PR, F1).”

Based upon my review of the environmental documents, and the project record, I have determined that the Responsible Official fully considered public comments in compliance with NEPA, NFMA and CEQ regulations and Forest Service Handbook/Manual policy. The Forest complied with applicable legal requirements concerning public participation in the development of this project.

Issue 2. Purpose and need is arbitrary and capricious (NOA, p. 2). The Appellants allege the Forest Service based this project on an invalid Forest Plan which is based on an ecological assessment which made inaccurate scientific recommendations and which was developed illegally and did not comply with FACA.

Response: This issue was reviewed by the Chief of the Forest Service in response to the Appellants’ appeal of the Forest Plan. The Chief noted that the D.C. Circuit court in Heartwood, Inc. et al. v. United States Forest Service, 431 F. Supp. 2d 28 (D.C. Cir. 2006) found that because the Hoosier-Shawnee Ecological Assessment was subject to the Federal Advisory Committee Act, drafts of that assessment were not exempt from disclosure under the Freedom of Information Act. The court made no other finding and did not consider the science contained in that assessment. The Court provided directions regarding the release of draft materials. The Forest has complied with all direction from this Court decision and released all draft material regarding this assessment to the Appellants. The lawsuit challenged the unavailability of the draft Assessment under the Freedom of Information Act, not the Assessment itself. The court made no findings concerning the substance of the Assessment and did not consider (or rule upon) the quality of the data or scientific information contained in the Assessment. The court never found that the science contained in the Assessment was tainted in any way. The Assessment is not illegal. There is no evidence of a legal violation regarding the scientific information used to revise the Hoosier Forest Plan. This project is based on review of the best available science, including publications that became available after plan revision (PR, B41_Response to Comments, p. 5-6).

The Assessment was developed by local scientists and resource specialists. The Assessment was assembled and edited by Dr. Frank Thompson, a respected scientist with the North Central Research Station, part of the research and development branch of the Forest Service. The North Central Research Station published the assessment under the protocols for a general technical report. There is no evidence that the integrity of the data is less than acceptable. The Appellants offer no evidence or basis on which to question the integrity of the scientific information contained in the Assessment. The Appellants do not point to any peer-reviewed, published scientific information that the agency ignored or overlooked that might refute or contradict the Assessment. The Assessment was subject to scientific peer review and published in 2004 as General Technical Report NC-244 by the North Central Research Station in St. Paul, Minnesota.

The Uniontown South Restoration Project was developed based on field work and review of the best available, published, scientific information. The project EA tiers to the EIS prepared for the Uniontown South Project, Hoosier NF, Appeal # 12-09-12-0027 A215
Forest Plan, but the project interdisciplinary team (IDT) did not rely on the Assessment alone. Scientific information concerning ecological restoration and oak-hickory native hardwood silviculture in the central hardwoods region has been published since the Assessment was produced. The IDT is aware of the more recently published information, and used this in the development of the Uniontown South Restoration Project. The PR demonstrates that the Forest used the best available, published, scientific information, field data, and site-specific analysis, e.g.:


The Uniontown South Restoration Project does tier to the programmatic EIS prepared for the Forest Plan and uses the Hoosier-Shawnee Ecological Assessment as well as other peer reviewed selections from the best available science, field data, and site-specific analysis. I find that the Responsible Official was not arbitrary or capricious in considering the science-based Forest Plan as well as other, more recently published scientific information. The record demonstrates that the IDT used the best available science.

Issue 3: “EA does not properly address climate change.” (NOA, p. 4).

Issue 3.A. “EA does not properly address climate change or address how the project will make the forest ‘more resilient to climate change.” (NOA, p. 4). Further the Appellants allege that the Responsible Officer did not consider climate change or how the proposed action will make the Forest more resilient in the face of climate change.

Response: The CEQ regulations for implementing the procedural provisions of the NEPA state [40 CFR 1500.1(c)].... “NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action.” Also, at 40 CFR 1500.4, “Agencies shall reduce excessive paperwork by:...discussing only briefly issues other than significant ones.” And at 40 CFR 1502.2 (b),......”Impacts shall be discussed in proportion to their significance...As
in a finding of no significant impact, there should be only enough discussion to show why more study is not warranted”. And in 40 CFR 1502.4 (d)….”Agencies shall as appropriate employ scoping, tiering, and other methods listed …to relate broad and narrow actions and to avoid duplication and delay.”

The issue of climate change was not brought before the Forest during the initial scoping period or during the 30-day public comment period. However, the Uniontown South Restoration Project EA (p. 3) states that the analysis is tiered to the EIS prepared for the Forest Plan and relies on this and associated documents for addressing issues that are of a broad scope, specifically to eliminate repetitive discussions of the same issues.

Climate change is addressed in the Appendices to the Forest Plan on p. 143, where it states “PC #3: The Hoosier should consider the cumulative impacts of land use on climate. A) A number of studies link forest cover with regional climate conditions…” The Forest responded to this comment by stating ‘Currently, there is no reliable way of predicting future changes or the effects of climate change. Therefore, an adaptive management approach should be employed in conjunction with a forest management approach that provides for a diversity of species to add to the resiliency of the forest to respond to any changes in conditions. (Forest Plan Appendices, p. 143)

The Forest Plan further states that ‘Adaptive management is an important part of ensuring compliance with the NFMA. Recognizing that perfect information and resource inventories are impossible in an imperfect world, we anticipate that new scientific information and changes in resource conditions will require “course corrections” during the 10-15 year life of this plan. The Forest Plan is dynamic and will respond to new information. (Forest Plan ROD p. 26)

The Uniontown South Restoration Project EA also documents analysis of the importance of maintaining healthy and diverse forests. First, it tiers to and is consistent with the programmatic EIS and Forest Plan, which does address climate change (DN, p. 5). Second, it seeks to maintain a diverse set of habitats, ages and forest types across the project area: “This project proposes to restore hardwood forest ecosystems by moving them toward the desired conditions based on ecological classifications and Forest Plan direction.”

Table 11 details the proposed treatments by alternative. The IDT designed treatments to address the concerns raised and the ability to meet the purpose and need of the project (EA, p. 37). The project also considers this in relation to habitat diversity. The wildlife section in the EA states ‘Because of the variation in individual species responses, Plunkett (1979) suggests “that the only way in which we may successfully manage forest ecosystems for the benefit of nongame birds and all of their other inhabitants is to set as the principal objective of management for nongame species the maintenance of a high degree of diversity in natural biological communities.” Proposed treatments for the Uniontown South Restoration Project would provide a diverse set of forest conditions across the landscape and across time. Disturbances would be dispersed across a matrix of undisturbed forest to create a mosaic of habitats for birds and other wildlife.’

I find that the record documents that the IDT and the Responsible Official did consider climate change by maintaining a healthy and diverse set of forest types and age
classifications in the project area. This, in turn, allows the forest to be resilient in the face of changing environmental conditions. In reviewing this record I have taken into account agency policy concerning climate change. Furthermore, I find the Responsible Official considered climate change at the appropriate level of detail and, followed appropriate forest-wide strategy in the Uniontown South Restoration Project decision to provide resilient forest conditions best adapted to a changing climate, and followed NEPA by incorporating other relevant decisions and references to avoid unnecessary duplication.

**Issue 3.B.** Science used to support “no net effect to global climate change” is dated; newer science conflicts with conclusion (NOA, p. 4). The Appellants allege that the Forest did not use the newest available science to assess climate change, nor did it analyze carbon sequestration and carbon storage.

**Response:** The CEQ regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) state [40 C.F.R. 1500.1(c)]..."NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action.” Also, at 40 C.F.R. 1500.4. “Agencies shall reduce excessive paperwork by:...discussing only briefly issues other than significant ones.” And at 40 C.F.R. 1502.2 (b),...”Impacts shall be discussed in proportion to their significance...As in a finding of no significant impact, there should be only enough discussion to show why more study is not warranted”. And in 40 C.F.R. 1502.4 (d).... "Agencies shall as appropriate employ scoping, tiering, and other methods listed ...to relate broad and narrow actions and to avoid duplication and delay.”

The Appellants failed to raise climate change as an issue during the scoping period; however, there was mention of the project’s potential impacts to the carbon cycle. The purpose and need section of the EA listed the need to “restore healthier conditions and improve stand structure within the project area. This overall improvement of the health of vegetation in the project area makes the ecosystem more resilient to attacks from insects, disease, severe weather, and even changing climates.” (EA, p. 3-4)

The EA provided further analysis pertaining to carbon sequestration in two portions of the document, the Soil and Water section and the Vegetation section. The Soil and Water analysis (EA, 3.5.2 p. 28-29) described documented evidence from other, similar, nearby projects where warm season grasses increased upon completion of the project, which store carbon more efficiently causing an increase of soil organic carbon (EA, p. 28). Additionally, research indicates these grasses will lead to better infiltration, water holding capacity, and compaction recovery (EA, p. 29).

The Vegetation section of the EA (EA, 3.7.2 p. 39-40) also discusses carbon sequestration by stating:

“The net change in forest carbon is not equivalent to the net flux between forests and the atmosphere because timber harvests do not cause an immediate flux of carbon to the atmosphere (U.S. EPA 2011).
In addition, this project could increase carbon sequestration. Forests sequester carbon whether they are managed or not. However, properly managed stands are generally capable of sequestering more carbon in a shorter time than unmanaged stands (Johnson et al. 2009). Restoration of native vegetation and wildlife habitat has the potential to sequester large quantities of carbon (Birdsey 2006)."

Clearly the EA did analyze carbon cycling and carbon sequestration changes resulting from implementing management activities in the Uniontown South project. Additionally, references cited in the EA regarding carbon sequestration are no older than 2006.

I find the record clearly documents consideration of the best available science and the Responsible Official considered the climate change issue in the Uniontown South Restoration decision by focusing on the need to provide resilient forest conditions that are best adapted to a changing climate. The Responsible Official also followed NEPA by incorporating only relevant decisions to avoid unnecessary duplication. Further, the EA did analyze carbon sequestration in the vegetative and soils and water sections of the EA, which provided the Responsible Official adequate analysis upon which to make an informed decision. The references cited in the EA are all peer-reviewed documents less than 6 years old. Therefore, I find no evidence that this decision was arbitrary or capricious with respect to climate change or carbon sequestration. The Appellants has not provided any evidence contradicting or refuting the Responsible Official’s conclusions on resiliency. There is no evidence that the IDT overlooked or ignored any applicable scientific information. Based upon my review, I find no evidence that the decision was arbitrary or capricious with respect to climate change analysis.

**Issue 3.C. The Hoosier National Forest should have received a similar memo to the Allegheny National Forest on climate change and appears to not be following it because it made conclusory assertions about climate change without truly addressing the issue.**

(NOA, p. 5)

**Response:** One of the purpose and need points on page 3 of the EA states “Create healthy and resilient stands that can withstand and reduce the effects of insects, disease, and climate change”. The purpose and need section goes on to say “There is a need to create healthy and resilient stands that can withstand and reduce the effects of insects, disease, and climate change. Ecosystems are evolving and changing over time. The natural variety of species, genetic make-up, and ecological processes make ecosystems key to providing diversity necessary to be resilient in the face of environmental disturbances.”

The Soil and Water Resources section of the EA address climate change, “Some nutrients are released through slash decomposition and burning. Much of the nitrogen is released into the atmosphere in gaseous forms. The particulate matter released into the air with cool, patchy burning consists of naturally occurring chemicals. Over time, microbial activity would sequester all volatilized losses of greenhouse gasses following decay and burning, so there would be no net effect to global climate change (Patric and Smith 1975; Hubbard et al. 2003)”. 

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Also see response to **Issues 3.A and 3.B** regarding the effects of this project on climate change.

The Appellants did not raise this issue during the 30 day scoping period or the public comment period, however, the Forest did address climate change by addressing the resiliency of the vegetation. The letter mentioned by the Appellants specifically applies to the Allegheny National Forest in Pennsylvania. This was not a policy decision or manual direction directing the Hoosier National Forest to take any specific action. The ecological conditions on the Allegheny National Forest in Pennsylvania are quite different. The Appellants did not raise this letter during project development. Based on the information provided in the record I conclude that the Allegheny National Forest letter does not apply to the Uniontown South project. Therefore, I find that the Forest did address climate change and carbon sequestration.

**Issue 3.D. DN/FONSI is flawed in its finding on the human environment (NOA, p. 5).**

“...[T]he deciding officer declares in the DN/FONSI that ‘I do not know of any effects on the human environment from this project that are highly uncertain or involve unique or unknown risks.” This is a false, arbitrary and capricious finding in and of itself. There are significant impacts on carbon sequestration from the proposed project, as well as the entire Hoosier plan, and the issue has never been given a hard look.”

**Response:** The Appellants’ contend that the DN/FONSI is flawed in its findings because of the significant impacts to carbon sequestration from this project and the entire Forest Plan.

Specific analysis regarding carbon sequestration was completed in the EA, in the Soil and Water section (p. 28-29) and the Vegetation section (p. 40). The analysis utilized peer-reviewed scientific papers from 2006 – present. Review of carbon sequestration and how the Responsible Official considered this in his decision was thoroughly reviewed in **Issue 3.B** above.

The Appellants also contend that the deciding officer made an arbitrary and capricious finding related to the human environment. The Responsible Official states in the DN/FONSI that “I do not know of any effects on the human environment from this project that are highly uncertain or involve unique or unknown risks. The EA (pages 12 through 52) adequately evaluates the effects of this project.” The types of effects to the biota resulting through the implementation of this type of project are well documented; through observed results of previously implemented similar projects and through analysis found in the EA, Chapter 3 (EA, pp. 13 – 52). The Responsible Official evaluated the analysis and research, which included the best available science, to reach this conclusion.

The greater context of climate change was also considered in the EA and supporting documentation. Review of the EA analysis of this point was documented further in **Issue 3.A.** Specifically, the EA outlines methods that will be utilized to maintain healthy and
diverse ecosystems, mixtures of age classes, and structural diversity across the landscape (DN/FONSI, p. 2). As identified in Issue 3.A, above, the Forest Plan acknowledged the uncertainty of climate change and therefore identified the need to maintain species diversity to ensure that forests are resilient in the face of climate change.

I find the Responsible Official did consider the context of the project as it related to the human environment. The effects of these types of actions on the biotic resources are well documented and were appropriately analyzed in the Uniontown South Restoration EA. Further, the Responsible Official did consider carbon sequestration and climate change in his decision (DN/FONSI, p. 6) by evaluating the effects of the project on diversity, native species and forest health. Based upon my review, I find no evidence that the decision was arbitrary or capricious with respect to Responsible Officials’ findings on the human environment. Appellants provide no evidence of highly uncertain carbon effects related to the resources of the Uniontown South project area.

**Issue 4: Economic analysis and ecosystem services.**

“The agency is required to consider the direct, indirect, and cumulative impacts of a proposed action, including the economic impacts. In order to give a "hard look" at the economic impacts of this project, the agency must consider the costs and benefits. In order to evaluate the costs properly, it is necessary to have a baseline value on the resources that are proposed for alteration. Only then can the agency know the costs of the action in order to compare it accurately with the benefits.” (NOA, p. 5)

“...[T]he agency must consider the ecosystem services being provided by the undisturbed forest in making a true cost/benefit analysis. These include carbon storage, air particulate filtration, watershed protection, habitat, and scenic beauty. What are the value of these services as the forest currently provides them without cost? How will the project affect these ecosystem services?” (NOA, p. 5)

“...[T]he EA only looks at the direct income and costs of the commodity production. It does not consider the value of the ecosystem services provided by the forest before implementation of the action.” (NOA, p. 5)

“Such information (Greenfire report on the Wayne National Forest) belongs in a hard look at the economic impacts of the proposed action, especially since it was brought up in the comments repeatedly. But the Hoosier has refused to even try to give this a hard look. Instead, they just ignore it - a clear violation of NEPA.” (NOA, p. 6)

**Response:** The Appellants contend the Uniontown project DN, EA, and FONSI violate CEQ NEPA Regulations by failing to take a “hard look” at economic impacts by considering the costs and benefits of ecosystem services to include carbon storage, air particulate filtration, watershed protection, habitat, and scenic beauty. Carbon cycle and other ecosystem services were included in Mr. Donham’s 5/20/2010 public comment from initial scoping on the project, however the specific list included in the appeal was not provided in comment. During the 30-day comment period, Mr. Donham commented on the project, but did not comment on ecosystem services.

**NEPA CEQ Regulations (40 CFR § 1508.14) Human environment.** “Human environment shall be interpreted comprehensively to include the natural and physical environment and the
relationship of people with that environment. (See the definition of “effects” (§ 1508.8).) This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.”

NEPA Sec. 102(2)(B) “insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations.”

…and CEQ NEPA Regulations (40 CFR § 1502.23) Cost-benefit analysis. “If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which is likely to be relevant and important to a decision.”

Air quality, watershed protection, scenic beauty, and habitat effects are analyzed in the EA; habitat considerations were provided in the DN; however they are not quantified or titled “ecosystem services.” The EA pages 52 to 53 provide quantitative costs/benefits and qualitative discussion of economic effects. These, and the EA Table A. 1, Public Comments and Responses from Initial Scoping, address public comments on ecosystem services in terms of “goods and services not priced in the marketplace.” The formal cost-benefit analysis included timber costs and benefits in this EA. Minimum standards for project economic analysis are not provided in the CEQ Regulations.

There is no evidence from the Appellants or otherwise that the Forest failed to properly analyze ecosystem services. The EA is tiered to the socio-economic discussion in the EIS prepared for the Forest Plan and incorporated planning record documents. Based upon this review, I find that the project does not violate NEPA or CEQ Regulations regarding adequacy of economic analysis.

**Issue 5: Herbicide Use**

**Issue 5.A. Types of herbicides, specific locations are not identified and so fails the “hard look” requirement. (NOA p. 6-7)**

**Response:** The Appellants states that the Hoosier did not identify the types of herbicides or the specific herbicide use locations and therefore fails the “hard look” requirement. The use of herbicides within the Uniontown South Project is described in the EA for two purposes: as a
portion of silvicultural treatments and as one of the methods that may be employed in treating
known and/or new Non-Native Invasive Species (NNIS) plant infestations.

**Types of herbicides**
The list of herbicides that may be utilized by the Hoosier National Forest is contained in Table
1.7 of the Hoosier National Forest Nonnative Invasive Species Plant Control Program Analysis
(PR, G1). There are nine herbicides that are analyzed in the Hoosier NNIS EA. Selection of an
appropriate herbicide is based on the type of NNIS plant that is to be treated. Two of the nine
herbicides that are on the list are glyphosate and triclopyr. These two herbicides are mentioned
specifically in Appendix B- Design Measures of the Uniontown South EA so that field staff
would know of specific areas to minimize the use of herbicides in treating NNIS in order prevent
damage to non-target species. Page 64 of the EA directs field staff to “minimize the use of
triclopyr (ester formulation) or surfactants used with glyphosate (terrestrial version) within
ephemeral, intermittent, or perennial stream corridors, caves or karst features, or within 100 feet
of lakes, ponds or wetlands.”

**Specific herbicide use locations**
The use of herbicides for silvicultural treatments is described as follows: “The project proposal
would also include some herbicide application for stand improvement as part of silvicultural
treatments in midstory removal units (396 acres)” (EA, p.17). A map showing the locations of
the midstory removal units (396 acres) is shown in EA Appendix C, Map 2.

The use of herbicides for treating NNIS is described on Page 14 of the EA: “The Hoosier
proposes to protect and restore native ecosystems by reducing populations of NNIS plant species
that occur across all National Forest System (NFS) lands, including the Uniontown South
Restoration project area.” Maps showing the Uniontown South Restoration project area may be
found in Appendix C.

In the Specialists Report- Effects to Plant NNIS and Botanical Resources (Appeal Record, E10),
the Forest Botanist identifies a list of known NNIS infestations within the Uniontown South
Project Area (Table 2). These sites are described further in the EA:

“Project level site-specific surveys conducted have located NNIS plant infestations both
within and near proposed activity areas. The primary locations of these populations are
along past disturbance corridors on old roads and trails (spread vectors). Other sites with
substantial infestations are under conifer stands in areas with major past disturbances,
along utility right-of-ways, and old fields. Additional infestations occur in small wildlife
openings and in old timber harvest areas.” (EA, p. 16)

The HNF Non Native Invasive Species Plant Control Program Analysis (PR, G1) shows that the
Forest is committed to eradicating high priority NNIS infestations as they are discovered. The
Uniontown South Project is a site-specific analysis and application of the Forest-level NNIS
program. NNIS occurrences are documented in the project area and the EA states that field
work would continue to occur and to identify NNIS: “Ongoing and future site-specific invasive
plant surveys would continue throughout the Uniontown South Restoration area, and adhere to
standardized Forest Service protocols for invasive plant inventories.” (EA, p. 16)
I find that the Uniontown South Restoration Project EA does identify the locations for herbicide use in mid-story treatments. However, the Responsible Official did not provide adequate information and analysis concerning the type of herbicide to be used in specific locations. Therefore, the analysis did not adequately assess the direct, indirect and cumulative effects of herbicide use in their mid-story treatments. This will be discussed further in my recommendation section below. I find that the effects of herbicide use in connection with NNIS have clearly been addressed in the Forest-wide NNIS EA and DN/FONSI.

**Issue 5.B. EA ignores endocrine disruption impacts of glyphosate and triclopyr (NOA, p. 7-6).**

**Response:** The Appellants allege that the Uniontown South EA ignores the effects that the herbicides will have on endocrine processes.

The Uniontown EA (p. 16) clearly states that the analysis incorporates the Nonnative Invasive Species Plant Control Program Analysis regarding various resources, environmental effects, or human health and safety and relies on those associated documents for addressing issues that are of a broad scope, specifically to eliminate repetitive discussions of the same issues.

The Nonnative Invasive Species Plant Control Program Analysis contains risk assessments for herbicides used on the HNF. The comprehensive human health and ecological risk assessment for the HNF incorporates by reference portions of analyses done by Syracuse Environmental Research Associates, Inc., (SERA) under contract to USDA Forest Service. The SERA assessments for glyphosate and triclopyr are more comprehensive and the use risk assessment procedures are consistent with the contemporary approaches used by the Environmental Protection Agency (EPA) for this same purpose.

In addition to the SERA documents, the HNF made appropriate use of a variety of major reviews that have been developed by or for other federal agencies. These risk assessments were developed using an extensive review of the literature about the effects of these herbicides on people and the environment. They include worksheets that use the most updated scientific data available at the time to calculate hazard quotients, among many other statistics. Forest Service staff used these risk assessments, and also conducted a literature review for more current studies on these chemicals. The herbicide risk assessments provide specific information about human exposure to herbicides:

*Herbicides used are selected for their low toxicity to humans and the environment. Federal law requires that before selling or distributing a pesticide in the United States, a person or company must obtain a registration, or license, from the Environmental Protection Agency (EPA). Before registering a new pesticide or new use for a registered pesticide, EPA must first ensure that the pesticide (including any adjuvants, surfactants, or other ingredients comprising the product contents), when used according to label directions, can be used with a reasonable certainty of no harm to human health and without posing unreasonable risks to the environment. To make such determination, the EPA requires scientific studies and test*
Human Health and Ecological Risk Assessments (SERA 2001, 2003, 2003b, 2003c, 2003d, 2004a, 2004b) have been prepared for the herbicides proposed for use on the Forest. In these documents, the process of risk analysis is used to quantitatively evaluate the probability that use of a given herbicide might impose harm on humans or other species in the environment. It is the same process used for regulation of food activities, medicine, cosmetics, and other chemicals. Each risk assessment used extensive literature searches and unpublished studies submitted to U.S. EPA to support the herbicide registration. Measures of risk were based on typical Forest Service uses of each herbicide. If needed herbicide treatment areas would be signed further reducing the potential for direct impacts to human health from the proposed treatments. (NNIS EA, p. 34)

When conducting any invasive plant treatments with the project area, the Forest would utilize the techniques identified in the forest-wide Nonnative Invasive Species Plant Control Program Analysis (USDA FS 2009a). Where herbicide application is necessary, the Forest would follow all Environmental Protection Agency (EPA) and label cautions.

The individual risk assessments for the chemicals potentially used in the project areas and on the Forest as identified Table 3 in the Nonnative Invasive Species Plant Control Program Analysis (USDA FS 2009a), are available at http://www.fs.fed.us/foresthealth/pesticide/risk.shtml

The Uniointown EA and DN/FONSI put additional design criteria in place to protect human health and the environment. These design measures are listed in Appendix B, page 64 of the EA.

The Uniontown EA addresses endocrine disruption impacts by incorporating the Nonnative Invasive Species Plant Control Program Analysis that references the risk assessments for human exposure to glyphosate and triclopyr by siting the following two sources which both address endocrine effects:


A website cited by the Appellants (http://www.ourstolenfuture.org/newscience/lowdose/lowdose.htm) is for a book that the authors describe as a “scientific detective story that
explores the emerging science of endocrine disruption.” This book is not a scientific study and would not be representative of “best available science.”

I find that the EA, by incorporating the NNIS analysis, and the PR clearly articulate and analyze the effects of herbicides on the endocrine system effects and the Responsible Official considered them adequately in making his DN/FONSI.

**Issue 5.C: Herbicide use impacts to amphibians (NOA, p.9).** The EA should have considered a University of Pittsburgh study that found the Roundup herbicide formulations were ‘extremely lethal’ to amphibians.

**Response:** The Appellants reference a University of Pittsburgh study that found that Roundup® herbicide formulations were “extremely lethal” to amphibians. The web link provided by the Appellants for this issue is to the Newspaper of the University of Pittsburgh and is an interview with the author of the study and provides no specific details. From the information provided by the newspaper article, the Pittsburgh study experimented with Roundup® and found the lethal ingredient was not the herbicide, glyphosate, but the surfactant in Roundup®.

See response to Issue 5 for a list of herbicides to be used and application methods for each herbicide. All herbicides will be used in accordance with label instructions in order to stay within the effects chemical affects identified in the products SERA report. “Herbicide labels will be followed for application to NNIS in the analysis area. These guidelines will assist in minimizing cumulative effects from the proposed activity.” (PR, E13, p.7)

In addition, Appendix B of the Uniontown South Restoration EA incorporates design measures that are intended to reduce any potential negative impacts of the project. One such Design Measure is to “Minimize the use of triclopyr (ester formulation) or surfactants used with glyphosate (terrestrial version) within ephemeral, intermittent, or perennial stream corridors, caves or karst features, or within 100 feet of lakes, ponds or wetlands.

I find that the EA did analyze the effects of herbicide use to wildlife and further established mitigation measures to further minimize the effects to wildlife. The Responsible Official adequately considered herbicide use and therefore I find no violation of law, regulation or policy on this issue.

**Issue 5.D: Other herbicide impacts not considered (NOA, p.9).** The persistence of Triclopyr and the effects of herbicides on non-target plants, organisms, water and air pollution and visuals were not considered.

**Response:** The Appellants asserts that “[t]riclopyr is very persistent.” He alleges that the herbicide has “ruined many a municipal composting facility” without providing any specific information, or relating this allegation to the Uniontown project resources, the project’s proposed use of herbicides, or the site specific mitigation included in the proposal. In essence,
the Appellants argue that the Forest has failed to consider the environmental effects of herbicide use, particularly with regard to the persistence of Triclopyr in vegetation.

The response to this issue incorporates by reference the information set forth in Sections 5.A, 5.B, and 5.C of this administrative appeal recommendation. My review of the record, similar to those previous herbicide issues, indicates that the Forest did in fact take a “hard look” at the potential environmental effects of the site specific herbicide use proposed for this project. The record is replete with scientific information and shows that the best available science was used in the development of mitigation of effects. Equally important, the record demonstrates that the Forest received public input during the development of this project and used that input in its decision-making process. The record indicates the interdisciplinary team was sensitive to the public concerns and potential environmental issues associated with herbicide use and sought to ensure that indirect adverse effects would be minimized. (EA, p. 17).

The DN (page 1) notes that herbicides will be used to control the sub-merchantable trees remaining after the first harvest and for preparation of the site to encourage natural regeneration of native hardwood trees. The primary purpose of this action is to maintain and sustain the hardwood forest ecosystem. The project is consistent with all Forest Plan standards and guidelines for protection of soil, water, vegetation, and other resources (DN, p. 6). Appendix B to the EA contains comprehensive mitigation, including protection of human health and safety with regard to herbicide use (DN, p. 4). The Forest incorporated a number of programmatic studies and reviews in its analyses, including the September 2009 NNIS Plant Control Program Analysis (DN, p. 7).

The EA (page 16) notes that “[a]ll effects analyses to any future herbicide use would tier to the Nonnative Invasive Species Plant Control Program Analysis regarding various resources, environmental effects, or human health and safety. The forest-wide document also included a review of selected Material Safety Data Sheets and individual chemical ecological risk assessments (USDA FS 2009a 2009b). When conducting any invasive plant treatments with the project area, the Forest would utilize the techniques identified in the forest-wide NNIS Plant Control Program Analysis (USDA 2009a). Where herbicide application is necessary, the Forest would follow all Environmental Protection Agency (EPA) and label direction.” The record clearly contains substantial mitigation to reduce the indirect adverse effects. The effectiveness of this mitigation is supported by the record for the Material Safety Data Sheets and ecological assessments where were taken into consideration in the development of this project.

The Appellants’s concern applies generally to any herbicide use. The Uniontown project (Alternative C) proposed herbicide application for stand improvement as part of silvicultural treatments in mid-story removal units on 396 acres. “Certified herbicide applicators would conduct spot treatments to promote regeneration of oak and hickory, so the amount of actual chemical used is substantially less than other treatment methods. Because of the selective spot application, the activity would not affect the spread of NNIS plants or harm much nearby non-target desirable native vegetation.” The herbicides identified for use in the Uniontown Project have a low soil activity mobility and low toxicity. A certified applicator would apply EPA-approved, non-restricted herbicides in strict accordance with the manufacturer’s label to ensure safety to the applicators and minimum adverse indirect effects on other resources. Design
measures for herbicide use developed for this project set forth in Appendix B were specifically included to minimize negative effects. (EA, p. 39).

The EA (e.g., pages 28, 48, 64) demonstrates that the Forest examined the potential effects of herbicide use on Forest resources and public health and safety. The application of chemical herbicides has the potential to adversely affect aquatic resources if not applied properly and required that the procedures set forth on the herbicide labels and EPA regulations must be followed. In addition, the Forest took into account the presence of two RFSS plant populations (ginseng) known to occur within stands proposed for treatment. The EA (page 48) included specific mitigation to protect the sensitive species: “[h]erbicides directly applied to individual trees would not likely make contacts with plants growing on the ground surface.” Another example of the analysis and protection of Forest resources included measures taken to minimize risks to Indiana bats. The EA (page 64) requires that “[h]erbicides not applied within 20 feet of known occupied roost trees; Measure taken to minimize lack of safety: Herbicides not applied immediately before a planned prescribed burn; and, Measure taken to minimize damage to non-target species: Minimize use of triclopyr (ester formulation) or surfactant used with glyphosate (terrestrial version) within ephemeral, intermittent, or perennial stream corridors, caves or karst features, or within 100 feet of lakes, ponds or wetlands.”

I find that the Uniontown South Restoration Project did adequately analyze herbicide use and other potential adverse impacts, including the potential persistence of Triclopyr. The EA further identified mitigation measures which would minimize any impacts to various resources. I find that the Responsible official did also consider the effects of this project on visual quality. I find that herbicide use in conjunction with NNIS has been adequately analyzed is clearly in compliance with NEPA.

**Issue 6: Indiana bat and white nosed syndrome (NOA, p. 9).** The Appellants alleges that the agency will degrade Indiana bat habitat through the proposed vegetation management practices while claiming there will not be a significant impact beyond white nosed syndrome.

**Response:** Forest Service Manual 2600, Chapter 2670 provides policy and direction for threatened, endangered, and sensitive plant and animal management. Departmental Regulation 9500-4 directs the Forest Service to manage habitats to maintain viable populations, assist in the recovery of endangered species, and avoid actions that may cause a species to become threatened or endangered. The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) provides direction to the Forest Service to establish objectives for habitat management and recovery through the Forest Plan to conserve threatened and endangered species, to insure that actions do not jeopardize the existence of the species or adversely modify or destroy habitat.

“The action are consistent with and do not violate any Federal, State or local environment protection laws” (DN/FONSI, p. 5). This Finding was based on the Findings of the August 2011 project Biological Evaluation for Federally Threatened and Endangered Species, and subsequently concurred with by the US Fish and Wildlife Service in their February 24, 2012 letter contained in the PR.
Specific to Indiana bats, pg. 49 of the Uniontown South Restoration EA, describes how “pine plantations provide poor foraging habitat when compared to hardwood riparian areas, forest edges, and canopy gaps.” And further that “the removal of pines is equivalent to the removal of relatively poor foraging habitat for re-establishing a forest type of superior quality.”

The HNF carefully considered impacts of the management activities on forest bats in preparing the Uniontown South Restoration EA, through its incorporation of the Biological evaluation prepared for the project activities (Biological Evaluation for Federally Threatened and Endangered Species, August 22, 2011).

I find that the Responsible Official considered effects on the endangered Indiana bat, both through the BA and Appendix B Design Measures, and it was determined that the project would not significantly impact the Indiana bat.

**Issue 7: Significant Cumulative Impacts**

**Issue 7.A: Implementing the Uniontown South Restoration project would result in significant cumulative impacts (NOA, p. 9-10).**

**Response:** The Appellants alleges that the impacts from implementing the Uniontown South Restoration Project will, when combined, provide significant cumulative effects.

40 C.F.R. 1508.9 defines an environmental assessment (EA) and describes its intended use by federal agencies. Simply put, an EA is a

(a) Means a concise public document for which a Federal agency is responsible that serves to:

1. Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
2. Aid an agency’s compliance with the Act when no environmental impact statement is necessary.
3. Facilitate preparation of a statement when one is necessary.

(b) Shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

This regulation also requires federal agencies evaluate the impacts a federal action will have on the environment to determine significance.

The Responsible Official determined that implementing Alternative C would best meet the purpose and need for the project (DN, p. 2-3) outlined in the EA (Ch 1.2 pp. 3-4) and thereby implement Forest Plan direction as outlined in the EA (Ch 1.2.1, pp. 5-6). In making this decision, the Responsible Official provided rationale in the DN/FONSI which stated
Alternative C will provide the desired habitat without any significant negative effect to the human environment, including soil and water, wildlife habitat, and air quality. Alternative C fulfills the Forest Plan direction associated with the goal of maintaining and restoring sustainable ecosystems...the Forest Plan emphasizes diversity for wildlife species that require a mix of both early and late successional vegetative type and age classes.’ (DN, p. 2)

The responsible official also evaluated the effects of this project in terms of context and intensity. The Responsible Official in his evaluation of intensity states:

1. There will be no significant adverse effects resulting from implementation…the Uniontown South Restoration EA discusses the environmental effects of implementing any of the alternatives…
4. The selected actions are similar to activities that the Forest Service and the State of Indiana have been initiated on lands throughout Indiana. The anticipated effects are reasonably predictable and therefore the effects are not highly controversial. It is my professional judgment that the Uniontown South Restoration EA adequately addresses significant biological, economic, and social issues…
7. The EA considered cumulative effects and concludes there is no reason to expect any significant cumulative effects between this project and other projects either implemented, ongoing, or planned…

I have reviewed the specialist reports in the PR and the Chapter 3 of the EA regarding the analysis of the cumulative effects. I find that the Responsible Official considered and adequately addressed cumulative effects as they relate to the Uniontown South Restoration EA. Therefore, I concur with the determination that implementing ‘Alternative C will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Therefore an environmental impact statement need not be prepared.’ (DN, p. 4)

**Issue 7.B.1 Herbicide and burning in the same area** (NOA, p. 10). *Emissions from burning sprayed areas will release contaminants into the air. Furthermore, impacts to carbon storage, water quality, canopy, fragmentation, and recreation will also occur that have not been analyzed.*

**Response:** The Appellants have an issue with applying herbicide and burning in the same area. The Uniontown EA Appendix B states “do not apply herbicides immediately before a planned prescribed burn”. The foliar half-life of glyphosate is from 2.5 to 26.6 days (p. 302 http://www.fs.fed.us/foresthealth/pesticide/pdfs/Glyphosate_SERA_TR-052-22-03b.pdf). SERA concludes in their analysis that there is no evidence to suggest that toxic levels of glyphosate are likely to be encountered as a result of burning operations 30-180 days after herbicide application (SERA glyphosate, p.79-80).

The Uniontown EA noted “any smoke impacts due to the proposed project to the region would be short-lived and would not significantly add to the regional criteria pollution load. Model
outputs indicate that emissions would only account for one to two percent of criteria pollutants for Perry and its surrounding counties.” (EA, p. 23). Design measures in Appendix B of the EA would reduce excess smoke.

The Appellants referenced http://www.springerlink.com/content/x1220763271l40w7/ which references a study published called “Suitability of hardwoods treated with phenoxy and pyridine herbicides for use as firewood”. The forest did not identify phenoxy and pyridine in their list of proposed herbicides in Table 1.7 in the Nonnative Invasive Species Plant Control Program Analysis. However this list is not all-inclusive and would be adapted depending on research and available material. The herbicide 2,4-D has a Human Health and Ecological Risk Assessment as part of the same source, SERA, referenced by the Forest in the Nonnative Invasive Species Plant Control Program Analysis (http://www.fs.fed.us/foresthealth/pesticide/risk.shtml).

The Appellants also express concern regarding the effects to carbon storage, water quality, canopy, fragmentation, and recreation. Each of these issues was addressed in the cumulative effects section of the EA. Specifically for effects to carbon storage see response to Issue 3.B; for effects to water quality see EA, Sec 3.5, pp 24-30; for effects to canopy and fragmentation, see response to Issue 7.B.2; for effects on recreation, see response to Issue 7.B.5 and Issue 9.

The EA appropriately considered the combination of herbicide application and prescribed burning by (1) tiering to the Nonnative Invasive Species Plant Control Program Analysis which references the Human Health and Ecological Risk Assessments that analyze burning vegetation that has been treated with herbicides and (2) following prescribed burning Standards and guidelines in the Forest Plan (EA p. 29-30) and design measures in Appendix B.

**Issue 7.B.2. Significant cumulative impacts; all cumulative effects not considered for forest fragmentation and ecology (NOA, p. 10)**

**Response:** The Wildlife Report, Biological Evaluation (BE), and Management Indicator Species (MIS) Report each refer to forest fragmentation effects on cerulean warbler and West Virginia white butterfly, and effects of openings and gaps in the canopy on the Acadian flycatcher (Empidonax virens), American woodcock (Scolopax minor), Louisiana waterthrush (Seirus motacilla), wood thrush (Hylocichla mustelina), and yellow-breasted chat, (Icteria virens).

MIS are defined as "plant and animal species, communities, or special habitats selected for emphasis in planning in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent" (USDA FS 1991). The MIS used to assess interior forest species for the Uniontown South Restoration project included Acadian flycatcher and Louisiana waterthrush as referenced in the Specialists Report for Management Indicator Species, August 22, 2011.

The information in the Specialists Report and reflected in the EA acknowledges some minor habitat degradation within the project and further clarifies that such impacts would be short lived in time and mitigated by the project’s Design Measures.
I find that the Responsible Official did consider effects of the project on fragmentation as it relates to forest interior species through the use of forest MIS. Potential impacts were analyzed in the wildlife specialist report included in the project record.

**Issue 7.B.3. Human exposure to herbicides, smoke and particulates in a short time frame**

(NOA, p. 10). The Appellants further allege that the forest did not consider cumulative effects of all of these activities in the project area.

**Response:** The Appellants’ issue with “human exposure to herbicides” is discussed in Issue 5A. The Appellants’ issue of burning herbicide treated wood is addressed in response to Issue 7.B.1. Furthermore, on the HNF, there are factors that significantly reduce the likelihood of herbicide exposure, including signing treatment areas reducing the potential for direct impacts to human health from proposed treatments (Nonnative Invasive Species Plant Control Program Analysis, p. 34).

Several temporal boundaries were identified in the project. “Based on experience on the Forest and elsewhere, we limited the temporal dimension for analysis of effects to air quality to the period between initial ignition and the end of burn-related project activities. By then, all gasses and particulate matter would have dispersed or have become undetectable.” (EA, p.21)

The vegetation management section of the EA identified the temporal boundary as follows: “One salvage harvest has occurred in the cumulative effects analysis area within the temporal timeframe. The Celina Salvage sale removed dead and damaged trees in the North Face and South Slope campgrounds after a windstorm in 2004. It consisted of 4 acres of salvage harvest. The salvage harvest did not change the forest type or the age class in the treatment area. Future treatments on Federal lands that are foreseeable are the removal harvests resulting from the shelterwoods proposed under this project (216 acres). Although these treatments would occur in the future treatments timeframe, they were analyzed under this project and are accounted for in Alternative C.” (EA, p.41-42)

The Wildlife Threatened and Endangered species section stated: “The temporal boundary for cumulative effects is from 2012 to 2013. This includes the expected length of time for treatments to be completed and the canopy closure of native hardwoods would result in that time. The cumulative effects boundary includes 41,008 acres consisting of 27,683 acres of non-Federal ownership and 13,325 acres of NFS land.” (EA, p. 47) For RFSS, “the cumulative effects boundary was the project area plus a 2.5-mile buffer surrounding that boundary. The temporal boundary for cumulative effects is from 2012 to 2032. This includes the expected length of time for treatments to be completed and the canopy closure of native hardwoods.” (EA, P.50)

The transportation section in the EA stated: “Activities in the past 130 plus years have had an impact within the project area. It would be impossible to track all the activities associated with roads in that timeframe. However, 1960 to 2010 had a major impact on the transportation system in the area because of the development of the recreation area with campgrounds, boat ramps, lakes, a trail system, parking areas, and dam access roads.” (EA, p.34)
I find that the Responsible Official considered the context and intensity of cumulative impacts on public health and safety and that the Uniontown analysis thoroughly evaluates the health effects of herbicide by incorporating and referencing the herbicide risk assessments in the Nonnative Invasive Species Plant Control Program Analysis along with other associated documents. Based on the PR, there is no evidence that there may be in impact on the forest users by being exposed to combinations of air pollutants from this project in a short time frame. According to the discussions above, the temporal boundaries and the timing of these activities are not likely to overlap and cause cumulative effects.

**Issue 7.B.4  Human exposure to herbicides across the area over time (NOA, p. 10-11)**

"There will be a cumulative impact from the exposure of the public to herbicides on Hoosier. The EA does not disclose how many pounds of herbicide have already been used in the region, and what the application levels will be. A percent of these applications volatilize and expose the public that uses the Hoosier, with a cumulative impact from the herbicide applications that volatilize that are used outside of the Hoosier. The amounts of herbicides that are used in the region is significant, and there are cumulative impacts."

**Response:** The Appellants’ issue with human exposure to herbicides is also discussed in Issue 7.B.1 and 7.B.3. The risk assessments (from the Nonnative Invasive Species Plant Control Program Analysis) specifically consider the effect of both single and repeated exposures. Based on the hazard quotients summarized by SERA there is no indication that repeated exposures will exceed the threshold for toxicity. There is no route of exposure or scenario suggesting that workers or members of the general public will be at risk from acute or longer term.

I find that the analysis as documented in the PR evaluates the health effects of herbicide by incorporating by reference the herbicide risk assessments in Nonnative Invasive Species Plant Control Program Analysis.

**Issue 7.B.5. Recreation (NOA, p. 11). Scenic value will be lost resulting from the actions proposed in the project.**

**Response:** The Appellants states that there will be a significant cumulative impact on recreation as a result of the Uniointown South Restoration Project. As shown in the Scoping Results (PR, B14) and the Response to Comments (PR, B41), the Appellants did not raise project impacts to recreation or visual quality as an issue during initial scoping or the 30-day comment period. The Appellants is not specific regarding what the perceived cumulative impact on recreation may be.

Direct, indirect and cumulative impacts on recreation and visual quality are fully disclosed in the Specialists Report entitled “Effects on Visuals and Recreation” (PR, E11). The Forest Service Visual Management System (USDA, 1974) was utilized and some areas that were originally proposed for treatment in this project were removed because they did not meet the established Visual Quality Objectives (VQO) that are shown in Forest Plan (Appendix J, Map 2B).
In Chapter 3.4.3, the EA states that “Cumulative effects [to visuals and recreation] from past, present, and reasonably foreseeable future actions would be minimal. “ (EA, p.24) Additional information regarding impact on recreation is also addressed in the response to Issue 9.

I find that the analysis evaluated the effects of the proposed action on the scenic values of the project area in Chapter 3.4.3 of the EA. I further find that the Responsible Official appropriately concluded that the impact to visual quality and recreation would be minimal documented this in the DN/FONSI. The project and analysis are in compliance with NEPA.

**Issue 8: Optimality analysis (NOA, p. 11).** *Optimality should consider carbon storage, clean air, clean water, and other forest benefits, not arbitrary and capricious goals of even aged management established during the Forest Plan development.*

**Response:** The NFMA of 1976 describes requirements regarding the use of even-aged management techniques. Specifically, NFMA states these vegetation management techniques can be used to regenerate stands where

(i) **clearcutting is the optimal method and where other even-aged techniques are appropriate as in the land management plan;**
(ii) **Interdisciplinary review and the potential environmental, biological, esthetic, engineering, and economic impacts have been assessed;**
(iii) **Harvests have been blended with the natural terrain as possible;**
(iv) **Maximum size limits for each geographic region are adhered to;**
(v) **Harvest is consistent with protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource.**

NFMA also discusses regeneration of stands that have been harvested using even-aged methods for cutting; “(d)(1) It is the policy of the Congress that all forested lands in the National Forest System shall be maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth, and conditions of stand designed to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans.”

The decision rationale for determining that clearcutting and even-aged management is optimum and appropriate for meeting restoration objectives is summarized in the DN on p. 6-7. The Responsible Officer determined that the 547 acres of clearcutting were the “optimum treatment to achieve management objectives for these areas as defined in the Forest Plan. During the analysis, a certified silviculturist compared each site where all the pine trees are to be removed with other silvicultural options and determined that clearcutting is the best method for that site.”

The IDT addressed the impacts of the proposed silvicultural treatments throughout the analysis. Appendix C maps specifically identify and summarize the proposed treatments for each stand with associated acre limitations. The Responsible Official found the project was consistent with the Forest Plan (DN, p. 7).

The Appellants also expressed concern regarding regeneration of stands to a treed condition post-harvest. The Vegetation specialist report in the PR (e_14 Utown veg.docx) outlines in clearcutting and shelterwood methods, the objective for oak/hickory regeneration to occur.
naturally and identifies several studies that show oak will regenerate given these harvest methods (Resource Report for Vegetation, p. 12).

I find that the Responsible Official evaluated the even-aged methods used for vegetation management in a portion of the Uniontown South Restoration Project and appropriately concluded that the need for these treatments are optimal for meeting the restoration objectives for the Uniontown South Restoration Project. The record documents thorough analysis of various harvest methods. The determination that clear-cutting was the optimal method is based upon local, site-specific field work and the best available science. The analysis and project are in compliance with NEPA and NFMA.

**Issue 9. Impact on Recreation (NOA, p.11).** *The project proposes action in a recreation area which will have adverse effects on the project area, thereby having significant impacts that should be addressed in an EIS.*

**Response:** The Appellants states that because the project area includes a designated recreation site, the impacts of the Uniontown South Restoration are significant and an EIS should have been prepared. This issue is also addressed in the response to Issue 7.B.5.

The Uniontown South Restoration Project is within Management Areas (MA) 3.3 and 7.1. The Desired Condition and Guidance for MA 3.3 (p. 3-31 through 3.33) and MA 7.1 (p. 3-42 through 3-44) is found in the HNF Plan (USDA Forest Service, 2006). The Indian-Celina Lake Recreation area encompasses a campground, boat launch facilities and hiking trails. The Indian-Celina Lake Recreation Area has land in both Management Areas.

The Uniontown South Project activities are consistent with the MA guidelines for both MA 3.3 and MA 7.1. The project activities will also help to move these MAs toward the Desired Future Condition outlined in the Forest Plan.

The Appellants states that “The EA admits that trails and other aspects of the developed recreation sites will be adversely affected by the project.” However, the EA states that there will be a balance of both negative and positive effects:

“Alternative C would have both negative and positive effects on the visual quality along roads and trails within the project boundary. Timber harvesting and burning would change the visual character of the area in the short-term, until vegetation regenerates. Those traveling roads bordering the project would see further into the forest. The landscape would have a more open appearance, rather than stands of trees. As visuals are largely subjective, depending on the observers’ perspective, some viewers would consider the changes negative while positive to others. In several years, the stands would appear more natural as regeneration proceeds. The visual evidence of woody debris and stumps would diminish as the stands grow. Portions of the treatment areas would appear heavily disturbed at first, but would eventually blend in during later growing seasons (USDA FS 2007). Timber harvest activities associated with the Uniontown South Restoration EA treatments in Alternative C would change the visual character of the area.
in the short-term. The created openings and clearcuts would be in sharp contrast to undisturbed areas. However, creation of more early successional habitat and regeneration of treatment areas to hardwoods emphasizing oak-hickory would eventually enhance the landscape pattern and arrangements of habitats on the Forest. Thus, in the long-term, Alternative C would meet visual quality objectives and enhance the visual landscape in the project area (USDA FS 2007).

Proposed treatments would create some inconvenience for users and disruptions to recreational activities, particularly to users of the Two Lakes Trail, hunters, mushroom gatherers, and dispersed campers. There would be temporary road and trail area closures until treatments were completed. This would displace Two Lakes and ADT users to other areas on the Forest, or in the case of the ADT, to county roads. Woody debris remaining next to trails would limit the view of the landscape; therefore, crews would lop and scatter slash adjacent to roads, the Two Lakes Trail, and the ADT for up to 25 feet.

Although vegetation treatments would have a short-term impact on hiking and other recreational activities in the Indian-Celina Recreation Area, a similar recreational setting is located within a few miles of the Indian-Celina area. The Tipsaw Recreation Area is 3 miles south of Indian-Celina Recreation Area and features the 5.9-mile Tipsaw Trail that encircles Tipsaw Lake. Several camp loops are located within the Tipsaw Recreation Area. In addition, continuing south on State Route 37 is the Mogan Ridge West multiple use trail system consisting of 12.3 miles of trail that connects to the 6.7-mile Mogan Ridge East hiking trail. Saddle Lake Trail has a 2.2-mile hiking trail that encircles the lake. Saddle Lake is located approximately 10 miles south of Indian-Celina Recreation Area. Thus, other opportunities for similar recreational activities to those within Indian-Celina Recreation Area are located nearby.

To reduce negative effects to Indian-Celina Recreation Area and particularly Two Lakes Trail users, silvicultural treatments would be staggered beginning in 2012 through 2020. The purpose of staggering treatments would be to avoid closing the entire 12-mile Two Lakes Trail loop and its connectors for the eight or more years of treatment implementation.” (EA, p. 23-24)

In Chapter 3.4.3, the EA goes on to states that “Cumulative effects [to visuals and recreation] from past, present, and reasonably foreseeable future actions would be minimal. “ (EA, p. 24) Appendix B of the EA includes ten design measures that ensure that project activities will have minimal impact on the recreation opportunities. (EA, p. 63-64) The record documents that the IDT took a hard look at potential recreation impacts and provided detailed information in its analysis.

I find that the IDT provided a thorough analysis of the positive and negative impacts that the Uniontown South Restoration Project will have on recreation opportunities. I concur with the Responsible Official in his FONSI for the Uniontown South Restoration Project. I find that that the context and intensity of the project effects do not require documentation in an EIS and that an EA is appropriate level of documentation of the effects of the Uniontown South Restoration Project. The project and analysis are in compliance with NEPA.
**Issue 10:** Finding that action will make the forest more resilient to climate change (NOA, p. 11). *The agency makes a conclusory assertion that this project will improve resiliency in the face of climate change without explaining how this will occur.*

**Response:** The Appellants alleges that the Responsible official concludes that the agencies actions will improve forest resiliency without basis in analysis or scientific documentation.

See Response to Issue 3.A. The HNF did consider resiliency through its efforts to maintain healthy, native stands, and by maintaining a diverse set of forest types, age classes, and structural diversity across the landscape. These actions establish a diverse and healthy condition which allows the forest to be responsive or resilient in the face of changing environmental conditions. Furthermore, I find the Responsible Official considered the climate change at the appropriate level of detail and, followed appropriate forest-wide strategy in the Uniontown South Restoration Project decision to provide resilient forest conditions best adapted to a changing climate, and followed NEPA by incorporating other relevant decisions to avoid unnecessary duplication. Based on my review, I find no evidence that the decision was arbitrary or capricious with respect to climate change analysis.

**Issue 11:** FONSI is based on incorrect/incomplete information and is not compliant with NEPA (NOA, p.12). *The deciding officer made numerous errors in his determinations and did not consider relevant information and based a FONSI on incorrect/incomplete information, which does not comply with NEPA.*

**Response:** The Appellants states that the FONSI is based on incorrect/incomplete information and is not compliant with NEPA.

The Uniontown South Restoration Project EA summarizes the potential site-specific effects identified and analyzed during project development. The project EA is appropriately tiered (40 C.F.R. 1508.18) to the programmatic discussion of vegetation management in the programmatic EIS prepared for the Forest Plan. The Uniontown South EA discloses the site-specific effects to vegetation, wildlife, soil, water, recreation, and other resources. The decision documentation incorporates the analysis set forth in the EA and is informed by the specific discussions, by resource, included in the EA and referenced documents in the PR. The Responsible Official based his decision on the entirety of the Uniontown South Restoration Project which shows the use of current and relevant scientific methods and policy. The DN/FONSI considers the context and intensity factors of 40 C.F.R. 1508.27 and documents the findings of the Responsible Official that the Uniontown South Restoration Project contains no significant effects that trigger the need to prepare an EIS (DN, p. 4-7).

Based on my analysis, I find that the FONSI is based on current and relevant information. I find that the FONSI is in compliance with the provisions of NEPA and I find no evidence that the DN/FONSI is arbitrary or capricious.
RECOMMENDATION

I have reviewed the record for each of the issues raised in the appeal. I have found the analysis for most issues are clear and are in compliance with the applicable law, regulation, or policy.

The Forest clearly took a hard look at herbicide use for NNIS in the project area and the whole of the HNF in the 2009 NNIS Plant Control Program EA and DN/FONSI, which was incorporated into this decision by reference. This prior decision is clearly in effect, and is not subject to this appeal review and decision. NNIS treatments in this project area should continue as directed by this prior decision.

However, the PR, EA and DN were not clear with regard to herbicide use for other than NNIS species control. There is very limited information available in the record on herbicides, sites, and the proposed timing of the usage for other than NNIS species. Therefore, I recommend that actions in the DN involving herbicide use for other uses than those prescribed in the 2009 NNIS Plant Control Program DN/FONSI be reversed.

If the HNF intends to use herbicide for other than NNIS treatments in the project, additional analysis and a new decision must be prepared.

For all other aspects and actions of this decision, I recommend the Responsible Official’s decision be affirmed. The Appellants request for withdrawal of the entire decision is denied.

Sincerely,

/s/ Stephen J. Kuennen
STEPHEN J. KUENNEN
Appeal Reviewing Officer
District Ranger

cc: Patricia R Rowell
Brenda Quale