

December 20, 2025

Joby Timm
Forest Supervisor
George Washington & Jefferson National Forest
Roanoke, VA 24019

Re: Corridor H Wardensville to VA State Line Comments

Dear Supervisor Timm:

During the Draft Supplemental Environmental Assessment (SEA) public comment period for the Corridor H Wardensville to State Line Project earlier this year, fourteen groups from West Virginia and Virginia sent a letter regarding impacts to the George Washington & Jefferson National Forest. Among other requests, we asked the Forest Service to require a Special Use Permit (SUP) for the project in order to give the public an opportunity to comment. After the comment period ended, the FHWA permitting dashboard was updated, detailing that a SUP was being pursued.

That is, until the FONSI was issued by the FHWA on November 3rd, which states that the George Washington & Jefferson National Forest will issue a Letter of Consent (LOC) rather than a SUP. Since the public prepared for an opportunity to comment on impacts to national forest resources, but will not be able to, we are submitting this letter on behalf of seventeen organizations to provide new information about several topics that were not sufficiently evaluated in the SEA or the FONSI. We respectfully request that this letter be included in the administrative record.

We continue to believe that significant aspects of this project's initial context, outlined in the 1996 Environmental Impact Statement (EIS), are no longer relevant and/or are out of date. A new EIS would generate an updated set of alternatives and provide a sound basis for decision making about Corridor H. Our preferred alternative would be an upgrade to Rt. 55 with spot improvements in the current alignment through the national forest. These upgrades would avoid harm to national forest resources, cost far less, and transition well onto Virginia's Scenic Highway at the state line on Great North Mountain.

The information we are providing on the Wood turtle, the Northern long-eared bat, and the Tuscarora Trail includes several stipulations to consider incorporating into the Letter of Consent. These stipulations will help mitigate the harm to special resources in the National Forest and comply more fully with the Forest Plan and other laws and regulations. We hope that you will give careful consideration to each one.

I. The Wood Turtle

At SEA pg. 86 — “Shortly after the re-initiation of the Wardensville to VA State Line Project in 2018, the WVDOH and FHWA re-started Section 7 consultation with the USFWS. The USFWS notified WVDOH and FHWA that it had identified six T&E species and two proposed T&E species that could potentially be affected by the project and for which surveys were required along with one additional insect species that is a candidate for listing (Table 15). “Between 2019 and 2024, WVDOH conducted surveys using USFWS protocols/methodologies for each of the identified T&E species. Of the eight species, only one was identified during the survey efforts: the Northern long-eared bat (*Myotis septentrionalis*). Based on survey results, at the request of USFWS, WVDOH and FHWA prepared a BA (Appendix L) and submitted it to the USFWS along with a request to initiate Formal Consultation on May 21, 2024.”

So, thorough and comprehensive surveys to verify the Wood Turtle’s occurrence locations and movements throughout the project area apparently have not occurred.

On July 11, 2012 the US Fish and Wildlife Service [“USFWS”] received a petition from the Center for Biological Diversity [“CBD”] advocating the Turtle’s listing under the federal Endangered Species Act [“ESA”]. As per 16 U.S.C. § 1533(b)(3)(A), on September 18, 2015 the Service made a positive finding with regard to the Wood Turtle — “the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted” (80 Fed. Reg. 56,423-56,426, 56,431 (Sept. 18, 2015)). Unfortunately, the agency has been sitting on this situation for a decade. However, with a Jan. 15, 2025 DC Circuit Court ruling in response to 2020 litigation, the CBD secured deadlines for the USFWS to finally decide whether the Wood Turtle and 75 other species warrant protection under the ESA.

Wood Turtles are already considered “Endangered” by the IUCN Red List (van Dijk and Harding, 2011), and they are listed as a “Species of Greatest Conservation Need” in the Wildlife Action Plans of all 13 northeastern U.S. states, including WV and VA (Jones et al., 2018). Habitat loss and fragmentation are thought to be the primary drivers of declining populations for the wood turtle (van Dijk and Harding, 2011). The Turtle is also formally listed as a “Sensitive Species” by the Forest Service.

There is absolutely nothing in the Corridor H BA/BO about the Wood Turtle. So, the USFWS and WVDOH analyses of impacts are significantly deficient with regard to the Wood Turtle.

They do not properly or adequately analyze or disclose a determination of the potential direct, indirect, or cumulative effects of the Project on the Wood Turtle; nor does the USFS BE. This is unreasonable and insufficient and contrary to facts/evidence before the agencies. The agencies’ inadequate analyses of the proposed actions thereby involves unknown risks to the Wood Turtle populations in the Project area. Quite simply, this is uninformed decision making.

As the administrative record clearly shows, the Wood Turtle (*Glyptemys insculpta*) is officially a “Species of Greatest Conservation Need”, a species of “critical conservation need”, and a “Priority 1” species in both VA and WV (see state official Wildlife Action Plans). How plain must it be made for the critical importance and necessity of effective management consideration and measures for this species? If this project is typical of how a species of critical and greatest conservation need is treated, one despairs when thinking of the treatment meted out to all the other species of not-so-greatest need.

The agencies sweep concerns under the rug and come up with unsupported and flawed assumptions for making unreasonable conclusions. The agencies must use best available science, and demonstrate compliance with wildlife protections before this project can move forward.

Dr. Krichbaum has personally observed the Turtles in the GWNF at Trout Run, Waites Run, and Slate Rock Run, in the streams and in the associated forest. He informed the FS about this years ago. Dr. Krichbaum’s Wood Turtle study sites on the GWNF, for which he had permits from the USFS, were very closeby to the SE and N of this Corridor H project area in VA and WV (see S. Krichbaum 2018). Nonetheless, he received no notification from the FS about this proposal by mail or on-line.



The Wood Turtle is definitely known to disperse across Great North Mountain from VA to WV; Dr. Krichbaum has observed young adult males that have done this. Dr. Thomas Akre (Smithsonian Conservation Biology Institute) can verify this as well; Turtles with his radio transmitters have done it. And, of course, numerous other dispersals by Turtles may be occurring that are not documented.

And the USFS Corr. H Wardensville BE as usual comes up with a bunch of unsubstantiated conclusions with regard to Wood Turtles. They assert that while Project activities may impact individuals of this species, they “are not likely to cause loss of species viability on the Forest or cause a trend towards federal listing under the Endangered Species Act.” However, there is no rationale or evidence provided for these conclusions about the Wood Turtle. They provide NO demographic data/information, no information of precisely what populations will be impacted and where they live, where they nest, and no information on the current movements of Turtles between discrete populations (metapopulation dynamics). Wood Turtles on the NF are not a single

population; they are known to occur in disjunction populations and are not highly mobile organisms like most birds and mammals. The Corr. H road would certainly further hinder/impede dispersal, as well as of course be a source of increased direct mortality. Dispersal and associated gene flow needed to prevent or mitigate genetic drift or inbreeding suppression. Even a small amount of gene flow can maintain substantial genetic variation (Jamieson and Allendorf 2012).

Without sufficient analysis and rationale in the EA/BE to support their conclusions as to the impacts of their actions and the effectiveness of their mitigation, the FS has not fulfilled their obligations under the NEPA or the MUSYA/NFMA and have not ensured the validity of their “finding of no significant impact” to the Wood Turtle viability and distribution on the GWNF.

Although The ESA requires each federal agency to ensure that an agency action is not likely to “jeopardize the continued existence” of a threatened or endangered species. 16 U.S.C. § 1536(a)(2), such non-jeopardy is not equivalent to there being no significant impacts to the species at the project area or Forest.

Even if it is true that “proposed management activities will not jeopardize the continued existence of the Wood Turtle”, that does NOT mean that significant effects (such as to viability or distribution or abundance) may not occur to them within the GWNF or project area. The Forest Service may not be harming “critical habitat” for the species or be jeopardizing the “continued existence” of the species overall, yet its viability/distribution/abundance on this particular Forest may still be significantly jeopardized. NFMA requires that viability be maintained on this particular planning area, not just somewhere on the species entire range. It is this NFMA mandated viability and distribution on this particular Forest and project area that is not ensured in the BE, BA, and BO.

The populations/colonies of Turtles on the Forest here may already be very small. Which means their persistence is already at risk (O’Grady *et al.* 2004). The FS makes the conclusory assertion that “because wood turtle habitat on GWJNF at the project location is sub-optimal, there should be no loss of species viability on the Forest that would cause a trend towards federal listing under the Endangered Species Act.” Again, they provide no evidence and reasoning about how it is that this habitat is defined as sub-optimal.

Then they irrationally act as if since it is “sub-optimal” then it is okay to make it even worse by running a huge highway through it. Nothing about significant impacts to Turtles and their habitat and populations at the project area, not just the entire Forest. And again, they sweep impacts under the rug by unreasonably connecting them to a trend towards ESA listing. Using supposed “suboptimality” to rationalize explicit habitat degradation/fragmentation/loss is simply unreasonable. It is not just malignant, it is ludicrous. Consider this, if your home or health is somehow suboptimal, then if it/you are demolished, robbed, assaulted, or raped, then would there be no significant impact?

Dr. Krichbaum's research on the GWNF made clear that the Wood Turtle uses many different forest types, as well as streams of different sizes – see, *e.g.*, chapter 5 of 2018 Dissertation at pp. 200-209 and 224-227. So what evidence is there that the forests in this project area are sub-optimal?

Adult Wood Turtles are strongly philopatric over extended time periods, with an individual often occupying somewhat the same home range over multiple years (Quinn and Tate 1991, Kaufmann 1995, Ernst 2001a, Arvisais *et al.* 2002 & 2004, Tuttle and Carroll 2003, Akre and Ernst 2006, Jones 2009, Parren 2013, Krichbaum 2018). Their high degree of site fidelity means that cutting the Turtles foraging habitat experience can cause stress from the loss or degradation of foraging habitat or travel corridors. They will also be forced to expend extra energy as they search for new foraging areas, resulting in reduced individual fitness, in terms of reproductive success. Wood Turtles at Dr. Krichbaum's WV/VA research sites tended to avoid areas of anthropogenic early successional habitat (*i.e.*, recent tracts of even-age logging) (S. Krichbaum 2018). And except for nesting females, he also never found them using roadside habitat.

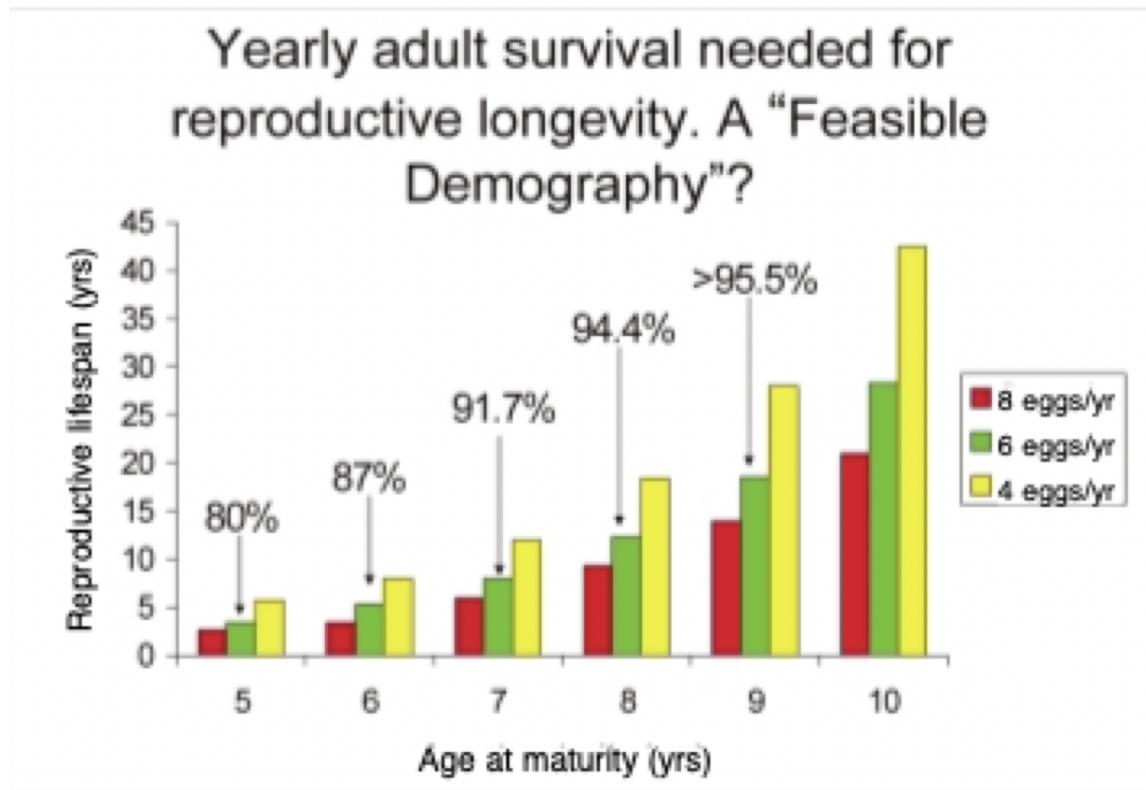
At a region-wide scale much Wood Turtle habitat has been taken over by agricultural, industrial, commercial, or residential development (Riitters *et al.* 2002, Sanderson *et al.* 2002). As habitat loss and modification will likely continue as long as the human population and economy grows (Trauger *et al.* 2003), threats to the Wood Turtle will not just go away and must be directly addressed if the species is to persist in our landscape.

Most of the land in the Turtle's range is in private hands where typically the focus is not on chelonian conservation. Consequently, Turtle habitat on National Forests and other relatively intact public lands is especially significant due to the highly degraded and fragmented condition of habitat elsewhere in their range (Jones *et al.* 1997, Riitters *et al.* 2002, Harper *et al.* 2005, Willey *et al.* 2022).

True, much current Wood Turtle habitat can be described as suboptimal due to human development and impacts (Willey *et al.* 2022). Therefore, places that are relatively undeveloped, such as various public and some private lands, even if they aren't as good as they were centuries ago, are more important now than they used to be.

Since humans have appropriated so much of the landscape, peripheral places that formerly may have been relatively suboptimal habitat may now be the best that are available and/or be of intensified conservation value (Channell and Lomolino 2000). Moreover, peripheral lineages may harbor unique genotypes that confer greater resistance to climate-change-induced stress (Hampe and Petit 2005). Clearly, even somewhat small populations (such as that described in Chap. 2 in Krichbaum 2018) could be valuable conservation reservoirs and restoration nuclei, providing for demographic and genetic exchange as well as facilitating range shifts in response to climate change (Shoemaker *et al.* 2013 & 2014).

No Wood Turtle population data and analyses are provided, nor are estimates of roadkill – these are needed to make valid findings about impacts to the “feasible demographics” necessary to maintain viability. According to Dr. Richard Seigel (2005) : “The phrase ‘feasible demography’ refers to a suite of life history characteristics that must exist in a population in order for that population to remain stable through time. The graph below demonstrates the interaction of reproductive life span (y-axis), age at maturity (x-axis), three different annual egg production scenarios, and the minimum adult survivorship (percentages) that are required to maintain a ‘feasible demography.’”



“As age of maturity goes up, reproductive life span and annual adult survivorship must also rise in order to maintain a stable population. . . . As the age of maturity increases (for example, nine years), the conditions needed to maintain a stable population change dramatically. A species that reaches sexual maturity at nine years requires a greater than 95% adult survivorship rate and a reproductive life span of a minimum of 20 years depending on annual egg production. [And the Wood Turtle only reaches sexual maturity at 10-20 years.] These high rates of adult survivorship and long reproductive life spans may not exist because of the many human-induced mortality factors now operating in box turtle populations [as well as Wood Turtle populations]. The impact of increased mortality and general habitat degradation is the gradual decline in the size of a population and a disruption of a ‘feasible demography.’”

Wood Turtles in VA and WV may exist as metapopulations, meaning a non-contiguous set of local populations that may interact on occasion by migration (Buhlmann *et al.* 1997). It is the low dispersal rates between local populations (which develop a significant degree of demographic independence) that characterize metapopulation organization (Smith and Green 2005).

“Protection” of known sites of occurrence is not enough. Thorough and comprehensive surveys to verify the Turtle’s occurrence locations throughout the project area have not occurred yet. In addition, conservation strategies for metapopulations must consider not only occupied habitat, but also unoccupied suitable habitat and intervening habitat that may be occasionally used during infrequent migration events (Simandle 2006, and Huxel and Hastings 1999).

Full protection of the Forest’s extant individual populations is important as it may be that GWNF Turtles serve or may serve as critical source populations that subsidize sink populations at more heavily developed sites off the Forest. Or is it vice versa (*i.e.*, are Wood Turtle populations on the Forest subsidized by emigration from off-Forest?) Disruption of individual colonies in a metapopulation may jeopardize the entire metapopulation (Hanski, I. and D. Simberloff 1997). Even apparent strongholds may be in need of strict protection and/or restoration (Bulman, C.R. *et al.* 2007).

Landscape permeability and maintenance of movement corridors are essential to ensure metapopulation dynamics of herpetofauna (Marsh and Trenham 2001). How permeable (amenable to movement) is the intervening habitat between Turtle populations both on and off the Forest? It may be that movements between populations are already significantly impeded by landscape modifications such as roads, development, and elevated populations of predators.

Perhaps we are killing off the wanderers. Because the modern human-dominated landscape is actually in a degraded and fragmented condition for Turtles, those that are more mobile may actually be harmed more since their movements expose them to sources of harm (Cushman 2006 and Fahrig 2001). In this sense, attempts at dispersal across significantly altered habitat can serve to imperil population viability. Dispersal refers to an individual’s movement to and establishment of a new home range.

While the “naturalness” of the Turtle’s present sporadic distribution is certainly debatable, this condition is nevertheless currently an empirical fact. Evidence indicates that Wood Turtle populations may be quite localized within its range, with large gaps occurring among populations (Litzgus and Brooks 1996, Ernst 2001b, Amato *et al.* 2008, Willoughby *et al.* 2013, Jones and Willey 2015). Dispersal is currently impeded or hindered within a landscape exhibiting varying degrees of permeability or resistance such that metapopulation dynamics are affected. Research on Wood Turtles in Ontario indicates that isolation of Turtle populations may lead to lowered heterozygosity and increased inbreeding (Fridgen *et al.* 2013).

For example, in West Virginia according to a “viability outcome” the Wood Turtle has “low abundance and is distributed as isolated occurrences. While some occurrences may be self-sustaining, metapopulation interactions are not possible for most occurrences.” (FEIS, Monongahela National Forest, USFS 2006) The fragmented condition referred to on the MNF repeats itself across the Turtle’s range and certainly places the species in a precarious position. Low population numbers in general are problematic, but this concomitant distributional fact exacerbates the Turtle’s vulnerability to disturbances or disruptions with the potential to harm their viability. Fragmentation creates isolated subpopulations that, because of their reduced size, have an increased probability of extinction.

The agencies have not demonstrated genetic connectivity for the populations/subpopulations of the WTs here at the project area. A genetically isolated population is doomed to decline and, in the longer-term, extirpation. Demonstrable natural gene exchange is therefore a prerequisite for truly recovered populations.

With regard to increased mortality and habitat degradation from the proposed highway, the Project’s impacts are significantly controversial and uncertain since neither the FS nor the other agencies establish, analyze, and provide:

- No WT population numbers
- No population trends
- No numbers/trends at the Project area for whatever Management Indicator Species is used as a proxy for a small, ectothermic, amphibious, ground-dwelling, long-lived, late-maturing omnivore of limited mobility (*viz.*, the Wood Turtle)
- No estimates of predator numbers
- No estimates of WTs potentially killed by fires
- No estimates of WTs potentially killed by logging operations at the cutting sites – trees felled on and dragged over them; crushed by dozers, skidders, trucks
- No estimates of WTs potentially killed by vehicles on roads
- No estimates of WTs potentially collected by humans (poachers)
- No estimates of WT nests potentially destroyed or predated at the road

The agencies do not clearly address and explain how the direct, indirect, and/or cumulative losses potentially accruing from the above listed concerns and sources of take or harm do not reach the bar of significance as to effects upon population viability and distribution – instead they merely provide conclusory assertions (see, *e.g.*, BE).

With the current administrative record, a Court cannot discern how the Forest Service arrived at its determination of no significant impact to Wood Turtle population viability. See *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998) (finding the Forest Service’s decision to be arbitrary and capricious where the EA “contain[ed] virtually no references to any material in support of or in opposition to its conclusions”). Where “the decision

of the agency ‘is not sustainable on the administrative record made, then the . . . decision must be vacated and the matter remanded . . . for further consideration.’’ Fed. Power Comm’n v. Transcon. Gas Pipe Line Corp., 423 U.S. 326, 333 (1976) at 331 (quoting *Camp v. Pitts*, 411 U.S. 138, 143 (1973)).

See *Sierra Club v. Norton*, 207 F. Supp. 2d 1310, 1335 (S.D. Ala. 2002) (stating that the “jeopardy” analysis is distinct from the “significant impact” standard of NEPA and explaining the importance of preparing an EIS where there is uncertainty about impacts to listed species); *National Wildlife Federation v. Babbitt*, 128 F. Supp. 2d 1274, 1302 (E.D. Cal. 2000) (requiring an EIS even though mitigation plan satisfied the requirements of the ESA); *Portland Audubon Society* 795 F. Supp. 1489, 1509 (D. Or. 1992) (rejecting agency’s request for the court to “accept that its consultation with the United States Fish and Wildlife Service under the Endangered Species Act constitutes a substitute for compliance with NEPA.”). Even if the FS or FWS determines the project would not jeopardize the entire species, this is not the equivalent to a finding of no significant impact under NEPA. See *Makua v. Rumsfeld*, 163 F. Supp. 2d 1202, 1218 (D. Hawaii 2011) (“clearly, there can be a significant impact on a species even if its existence is not jeopardized”).

The agencies do not clearly address and explain how the direct, indirect, and/or cumulative losses potentially accruing from the above listed concerns and sources of take or harm do not reach the bar of significance as to effects upon population viability and distribution – instead they merely provide conclusory assertions (see, e.g., BE).

In failing to ensure the scientific accuracy and professional integrity, including scientific integrity, of the information contained in the BE, the Forest Service violates the NEPA (see, e.g., 40 CFR 1500.1(b) (“information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” and 40 CFR 1502.24), abuses its discretion (APA violation), and violates the NFMA (failure to meaningfully consider the best available science).

Another thing the FS does in the BE to misinform the public and courts is to call Sweeten’s 35 page Master’s thesis a Doctoral thesis. I have heard others with Masters degrees say they were surprised that something this short and superficial could get somebody a Master’s degree.

Population viability involves a balance between exogenous ecological factors (that influence carrying capacity – “K”) and endogenous evolutionary & demographic factors (vital rates that contribute to the population growth rate, “r” or “λ”) (Kinniston & Hairston 2007). Births, deaths, and demography directly affect both population dynamics (Lande and Arnold 1983, Schoener 2011) and evolutionary processes (Futuyma 2010, Harts *et al.* 2014). Persistence in small stable populations is highly influenced by the evolutionary constraints that have formed the current life history (Lande 1993, Kinniston and Hairston 2007) and by ecological factors that

affect reproductive rates (Dunham *et al.* 1989). The self-sustainability of populations in the long-term is a function of the current population size (Willi and Hoffmann 2009, Reed and McCoy 2014) and the quality of the habitat relative to the species ecological requirements. Thus, the diminishment, isolation, or fragmentation of animal populations are of high conservation concern (Fahrig 2003, Rivera-Ortíz *et al.* 2015).

Typically, a large effective population (N_e) is needed to maintain genetic variation (Frankham 2003, Reed 2005); for example, Fridgen *et al.* (2013) reported lowered genetic diversity in reduced populations of Wood Turtles (*Glyptemys insculpta*) in southern Ontario. The lower genetic variation present in small populations may diminish a species' ability to persist through future environmental challenges (Frankham 2003, Reed and Frankham 2003, Traill *et al.* 2010). This may be of particular concern for taxa such as Testudines, which, due to their generally low genetic variability and slow microevolutionary rate (Avise *et al.* 1992, Lourenco *et al.* 2012, Shaffer *et al.* 2013), may have limited ability to adapt to the accelerated anthropogenic changes to their environment. In this sense, expansive areas may be serving as population "sinks" or "ecological traps" wherein human modifications of the habitat in which populations evolved occur at a rate faster than the populations can adaptively respond (Quintero and Wiens 2013, Robertson *et al.* 2013).

Late-maturing chelonians such as Wood Turtles appear to lack a density-dependent demographic compensation, meaning an increased reproductive output in response to a decreased population density (Brooks *et al.* 1991, Galbraith *et al.* 1997). In fact, just the opposite can reasonably be expected to occur, due to such factors as difficulty in finding mates (Belzer and Seibert 2009), *i.e.*, an Allee effect producing further reductions in population size. It is essential that conservation practitioners not address multiple/synergistic stressors to population viability individually in isolation (Crawford *et al.* 2014). So, even after the cause of decline is removed, sparse populations can continue to decline (Strayer *et al.* 2004); in other words, there is an "extinction debt" from past harms, degradations, and diminishments to populations and habitat (Tilman *et al.* 1994, Vellend *et al.* 2006).

Small, isolated, or declining populations are particularly at risk due to three forms of stochastic influences: genetic, demographic, and environmental (Soulé 1987, Lande 1993, Primack 2010). A mutual reinforcement of these biotic and abiotic processes serves to deteriorate population dynamics and collectively drive a population to extinction (Fagan and Holmes 2006). In long-lived organisms such as many turtle species, pervasive deterministic (such as predation or habitat loss) or demographic factors are likely to be greater threats to population viability than are genetic factors (Kuo and Janzen 2004, Pittman *et al.* 2011). Particularly in long-lived species, currently expressed genetic signals and status may be decoupled from contemporary demographic status (Marsack and Swanson 2009, Fridgen *et al.* 2013). Hence, genetic data must be coupled with basic habitat and demographic information, such as population size and trends, for effective conservation and management of threatened species (Avise 1995, O'Grady *et al.* 2004).

The Wood Turtle possesses the life history traits of slow growth, late maturity, high natural mortality of eggs and hatchlings, and low reproductive potential, *i.e.* small clutches (Lovich *et al.* 1990, Gibbs and Amato 2000, Ernst and Lovich 2009) that make their populations especially vulnerable and sensitive to increased human- caused loss and mortality. Due to the energetic and demographic implications of these traits, turtle populations may not be able to sustain even modest additive adult take or mortality (Congdon *et al.* 1993 & 1994, Garber and Burger 1995, Enneson and Litzgus 2008). High adult survivorship and extreme iteroparity (*i.e.*, many egg laying events) are generally necessary to maintain population viability (Doroff and Keith 1990, Heppell 1998, Heppell *et al.* 2000, Mitro 2003, Reed and Gibbons 2003). Nonetheless, given habitat stability and unchanged vital rates, it is possible that small (<50) populations of long-lived turtles can persist for long periods of time (Shoemaker *et al.* 2013).

Due to the demographic implications of these traits, turtle populations may not be able to sustain even modest additional adult take/mortality above natural attrition. With regard to population viability, research shows that Wood Turtles may be the North American turtle species most sensitive to the loss of adults from a population (Reed, R.N. and J.W. Gibbons. 2003). The implications of this relevant factor are striking.

It means that if enough adults are not protected from takings, then populations inevitably collapse. The loss of a very small number above natural attrition can be devastating, to the point that it is simply not feasible for reproduction to make up for the loss. Conservation efforts for Wood Turtles must focus on preventing adult mortality/loss and keeping their habitat intact. The FS is required by the NFMA to maintain their distribution on the Forest, which means that they must be maintained in this particular project area. The agencies have apparently ignored relevant science.

All of these concerns and impacts underscore the importance of maintaining the ecological integrity and connectivity of undeveloped sites (such as National Forest lands and some private lands) and their intact populations. Construction of the proposed highway is clearly antithetical to protecting Wood Turtle populations here. The populations/colonies of Turtles on the National Forest and adjacent lands here may already be very small. Which means their viability is already at risk.

There is significant uncertainty about the current status of and potential impacts to the Wood Turtle populations here at the project area-- another reason an EIS needs to be prepared. The FS and the other agencies involved here do not have fundamental information on the Turtles' populations, yet they charge ahead with projects that may kill still more Turtles and destroy or degrade still more Turtle habitat.

The proposed actions can foreseeably result in Wood Turtle direct deaths and cumulative mortality, fragmentation of habitat, and disruption of dispersal/gene flow. And these sources of harm/take are not just a one-time occurrence, they will go on year after year. Their habitat will be

destroyed, degraded, and fragmented, bringing further harm to individuals and populations. Increases in risks associated with terrestrial movements in areas of overlap with human activity, *e.g.* roads and traffic, are clearly at odds with the high adult survivorships required to maintain populations.

The cumulative impacts of concern involve harms to both habitat and populations. The cumulative impacts accrue not just to the populations living at this project area, but also to maintaining the species distribution and viability on the greater GWNF. The cumulative impacts from all these USFS actions serve to harm the health of populations and the long-term continuing existence and self-perpetuation of the species across the Forest (not just mere “persistence” – this occurs right up until there is only one individual left).

These potential cumulative impacts of this project along with other development and habitat alterations are precisely what can “cause a trend to federal listing or a loss of viability for the [WT]”, contrary to the statement in the BE, and will “contribute to a trend toward federal listing of these species under the Endangered Species Act”. The FWS found that the petition to list the Wood Turtle presented substantial scientific information suggesting that listing may be warranted. For the Turtles, there is valid concern about continuing widespread threats to population persistence (Jones and Willey 2015, Willey et al. 2022). The species’ natural range, the northeastern United States and southeastern Canada, is a region experiencing intense human population and development pressures (Fulton et al. 2001).



Dr. Krichbaum has observed roadkill Wood Turtles in the Wardensville area. And these were on much smaller roads (two lane). A 4-5 lane Corridor H with very high speed traffic will make it much more likely that Turtles and many other species will be killed when crossing such a road. And that says nothing about people who may kill them on purpose. He has seen drivers swerve and intentionally kill turtles and snakes right in front of him.

The difference in scale of perception of habitat between Turtles and humans is problematic. It absolutely must be remembered that Wood Turtles are only around 8 inches long and they cannot run or fly. A person is able to cover 10 times as much ground in the same amount of time. So for a Turtle to cross a 5 lane highway would be like humans having to cross a 50 lane highway with hi-speed traffic. That could certainly have a serious impact on people’s movements.

And on top of that, another very important factor is that the Turtles’ eyes are only several inches above the ground. So their perspective of oncoming traffic is extremely limited. With numerous highspeed vehicles operating the potential for roadkill is great, and that could have

significant impact upon feasible demographics and their population viability. Just consider how difficult it would be for a person to safely cross 50 lanes of hi-speed traffic if their eyes were down around their ankles.

To make matters worse, the proposed highway could also serve as an “ecological trap” for nesting turtles. The Wood Turtle (as well as Box and Snapping Turtles) definitely uses roadsides for nesting; Dr. Krichbaum has observed this numerous times as have many other researchers. A roadside nesting ecological trap can have the physical conditions and cues that a turtle prefers for a nest site; *viz.* open canopy, friable soils, and a slope that allows for good drainage. But it has bad things associated with it that actually decrease fitness (survival and reproduction), such as big moving vehicles and increased numbers of predators (such as Raccoons, Skunks, and Opossums that are known to affiliate with roads). So, both adults and hatchlings can be killed or at least significantly injured. Roads with more traffic also increase the likelihood of being collected and removed from a population.

And of course the agencies provide no estimates of numbers of Turtles that may be killed on the proposed road. They admit some individuals may be killed, but somehow they conclude that would not significantly impact population viability. Populations are composed of individuals. And Wood Turtle populations are particularly sensitive to the loss of adult individuals. And to make it even worse, adult reproductive females are the most valuable individuals with regard to population viability and the ones that are the worst to lose. Construction of the proposed road would make females out searching for nesting sites even more vulnerable to road kill than at present.

Worsening the problem with road kill in general is that female turtles are killed more due to their nesting forays and choice of roadside nest sites (Steen, D.A. *et al.* 2006, Krichbaum, S. 2024) [7]. This gender-biased mortality exacerbates demographic, reproductive, and recruitment problems.

Akre and Ernst in their 2006 Report to the VDGIF stated this about Wood Turtles and roads on the GWNF : “wood turtles regularly cross these roads, roadkill mortality is not uncommon, and few if any populations, can withstand the destabilizing effect of the loss of several adult females in a short period of time (Heppell 1998, Compton 1999).”

a. The Forest Plan

The current GWNF Forest Plan came out over 10 years after the May 5, 2003 Amended Record of Decision for the Appalachian Development Highway System - Corridor H Wardensville to Virginia State Line Project, Hardy County, WV. State Project: X316-H-125.16, Federal Project: NHPP(0484)117.

The Wood Turtle is listed in the “Species Sensitive to Over-Collection” group (it is given a weight of “Very High”) at pg. F-64 in the GWNF FEIS App. F Section 4. Standard FW-69 in the GWNF Plan at pg. 4-7 makes clear that for species in this Group the Defendants are to: ”a) limit permission to collect these species; b) limit sharing of location information of these species; c) avoid improving access to these locations; d) evaluate seasonal closure of access to these locations; and e) evaluate relocation of access to these locations.”

Further, “Human interactions, such as motorized vehicle use and recreation, are managed to minimize impacts to wood turtles.” (GW Forest Plan “Desired Conditions” at page 2-20) According to the GWNF Plan: “Desired Conditions for Species Diversity : DC SPD-13: Watersheds with known populations of wood turtles are managed to maintain or enhance the terrestrial summer foraging habitat, nesting habitat and overwintering habitat of wood turtles.”

Far from being maintained or enhanced here, the Turtles’ terrestrial summer foraging habitat will be significantly degraded or destroyed by the proposed regime of cutting, dozerizing, and road building. Contrary to the clear language in the GWNF Plan, the FS does not “avoid improving access to these locations” where the Turtle lives; indeed, they intend to inflict greater access upon the Turtle through authorizing the construction of a huge highway through the National Forest. And human interactions such as motorized vehicle use are not being managed to minimize impacts to the Turtles. This Corridor H project is not consistent with the GWNF Plan direction in re Wood Turtles.

A multitude of other species (fauna, flora, fungi) benefit when Wood Turtles and their habitat are protected. The state of biodiversity would be improved on and off the project area.

The NFMA also contains clear inventory and monitoring requirements. See, *e.g.*, 16 U.S.C. § 1604(g)(2)(B): “provide for obtaining inventory data on the various renewable resources” and “Insure research on and (based on continuous monitoring and assessment in the field) evaluation of the effects of each management system to the end that it will not produce substantial and permanent impairment or productivity of the land.” 16 U.S.C. § 1604(g)(3)(C). See also 16 U.S.C. § 1604(g)(3)(B) and 1604 (g)(3)(F)(v). The Forest Service, and the other agencies, have failed to collect and maintain adequate population inventory data and monitoring on the Sensitive Species Wood Turtle in the proposed project area and/or Forest. Without consideration of this essential information, the agency cannot possibly make accurate well-informed or reasonable findings regarding impacts to this species and to their distribution and/or viability, as required by NEPA and the NFMA. Nor is it possible to reasonably determine if the substantive NFMA mandate for maintaining their viability or the Forest’s diversity is being ensured. The hard look at site-specific data has not occurred. Monitoring the results of management actions is an essential element of adaptive management. Monitoring of the effects of past and future actions requires hard survey/inventory data.

When adequate population inventory information is unavailable, it must be collected when the site has a high potential for occupancy by a threatened, endangered, proposed, or sensitive species. See Std. 240 at GWNF LRMP 3 - 14. This information, required for a well-informed well-reasoned decision, must be gathered here. Otherwise, the NEPA, NFMA, and GWNF Plan are violated.

There is great uncertainty here as to the status of populations, their trends, and movements (important for metapopulation dynamics and the gene flow important for long-term population viability). This is a clear reason that an EIS is necessary. The populations/colonies of Turtles on the Forest here may already be very small. Which means their viability is already at risk. And there are no estimates of deaths from habitat destruction and road kill.

As Akre and Ernst stated in their 2006 Final Report (which the GW FS has): “Long-term viability of wood turtle populations within the Potomac River watershed will not be achieved in Virginia in isolation from surrounding states, particularly West Virginia, or other governmental land holders (i.e. the U.S. Forest Service) due to the concentration of relatively stable wood turtle populations in the Ridge and Valley along the West Virginia border, the vagile nature of wood turtles, and the persistent pressure of an encroaching human population in northern Virginia and the concomitant development. In order to effectively document and protect these populations into the long-term future, the DGIF, Forest Service, and MD and WV DNR will have to approach conservation using a landscape-level model that seeks to maintain a metapopulation within and across local watersheds.”

In fact, they thought because of its relatively intact forest and connection to the Cacapon River watershed that the area in VA very near this Corridor H project area “probably represents the best potential for long-term protection of a viable metapopulation of wood turtles. The Forest Service should consider this contention in all of its plans for development and maintenance of forests and their infrastructure in the district.”

A decision to implement this project as presently configured/analyzed does not comply with the NEPA. The FS and FHWA are required to take a “hard look” at the potential environmental impacts of the Corr. H project. NEPA demands the agency give full and fair consideration to information and ensure the scientific integrity of their analysis. Here, possible effects are “highly uncertain and or involve unique or unknown risks” and are “controversial”. In addition, this project involves “Unique characteristics of the geographic area” (e.g., proximity to the southernmost populations of WTs on Earth put at unique risk – we do not know why these are southernmost). Thus, the project “may cause loss or destruction of significant scientific, cultural, or historical resources”.

The agencies must take a hard look at alternatives - another reason an EIS is necessary. At present the agencies have/provide inadequate facts and evidence to make a valid FONSI for the proposed road. Due to the great uncertainty about the Wood Turtle populations and the potential

for significant impacts to them from the highway, and the current lack of consideration of alternatives (particularly the full and fair consideration and analysis of spot safety improvements/alterations to rt. 55), an EIS must be prepared.

See article on impacts of roads by Dr. Reed Noss:

<https://yellowstonian.org/minent-authority-on-roads-explains-how-they-destroy-american-wildlands-and-our-wildlife-heritage/>

b. Mitigation

The extent of upland terrestrial habitats used by Wood Turtles far exceeds the size of typically/traditionally protected narrow buffer zones along waterways (Krichbaum 2018). Akre and Ernst 2006 : “Discourage the construction and/or mitigate the effects of roads parallel to and immediately adjacent (i.e. within 300 m at the edge of the floodplain or riparian forest) to the stream.” The decision lacks effective mitigation. Neither the temporal nor spatial bounds of the proposed mitigation effectively protect Wood Turtles from significant harm.

The agency must document that mitigation measures will be effective and will reduce significant effects and the agency must support its findings with “substantial evidence.” National Audubon Soc’y v. Hoffman, 132 F.3d 7, 16-17 (2nd Cir. 1997); see also F.S.H. 1909.15 § 15. Also see 1999 USDA OIG timber sale report (attached on flash-drive). As explained below, the mitigation measures/design elements proposed in the DDN are not sufficient under NEPA. Case law has established that mitigation must not only compensate for foreseeable adverse harms, but that the effectiveness of these measures must also be clearly explained and substantiated. See Idaho Sporting Congress v. Thomas (1998) and Neighbors of Cuddy Mountain v. United States Forest Service (1998). In the instant case, the proposed mitigation measures for the Wood Turtle do not comport with the facts before the agency and are not adequate to protect the Turtle.

The SEA from FHA and WVDOH states at pg. 31, “Slate Rock Run – lesser priority for the wood turtle; buffer any stream crossing by 300 ft. and institute time of year tree clearing restrictions.” This measure needs to be altered so as to buffer any stream crossing by 300 meters (1000 feet), as is said to occur at Waites Run. Even aquatic turtles, such as Snapping Turtles, may nest hundreds of meters from the water (S.C. Sterrett et al. 2011, Refsnider, J.M. and M.H. Linck 2012).

Further, the SEA states, “To mitigate long term impacts to seasonal movement within headwater drainages, WVDOH has committed to constructing a wood turtle passage corridor (box or depressed bottom and daylighted crossing structure) coupled with exclusionary measures (i.e., fencing) northeast of Slate Rock Run to avoid direct species mortality and help maintain known movement patterns and access to seasonal wood turtle habitats (John Barger, personal

communication 2024). This passage structure is planned near the GWNF where there has been long-distance wood turtle movement between watersheds.”

These crossing structures and fencing need to be implemented along the entire length of this proposed highway, should it be constructed. The fencing should be erected along the entire road border. And knowing the limited vagility of the Turtles, the crossing structures need to be placed at points every 300 meters of the road.

Other road constructions have implemented such long-distance fencing and numerous crossings. For example, the US Rt.33 four lane bypass around Nelsonville, Ohio that passes through and beside the Wayne National Forest. The fencing and crossings were constructed to help reduce impacts to the Eastern Forest Rattlesnake (*Crotalus horridus*), a state listed Endangered species that is known to live at the project area.

Roadkill is exacerbated due to increases in traffic volume. A probability model estimated that the likelihood of a turtle successfully crossing U.S. Highway 27 in Florida decreased from 32% in 1977 to only 2% in 2001 due to a 162% increase in traffic volume (M.J. Aresco 2005). Roadkill would also be exacerbated by making for increases in vehicle speeds. (R. Forman et al. 2003).

Putting up fencing and providing underpasses and overpasses for animal movements can bring enormous benefits to both individuals' survival and population viability. Barrier or drift fences with under-highway culverts to provide passageways and prevent animals' use of roads during dispersal can dramatically reduce roadkill. Along a 0.7-km section of one north Florida highway near Lake Jackson, turtle mortality before installation of the fence was 11.9 turtles/km/day, while post-fence mortality was 0.09/ km/day, a reduction of more than 99% (Aresco 2005).

A multitude of other wildlife species will benefit from these crossing structures and fencing, particularly reptiles (snakes, lizards, turtles) and amphibians (toads, frogs, salamanders), as well as small mammals. In Indiana, scientists who counted more than 10,000 crushed animals on roads found that 95 percent were reptiles and amphibians (B. Goldfarb 2023). Withdrawing into your shell and standing your ground when a vehicle is barreling down at you at 70 miles an hour may be the worst possible thing you can do. Making the road system here much more “wildlife friendly” is a critical aspect for achieving real habitat connectivity and effective corridors that are needed for ecosystem health and sustainability.

II. The Northern Long-eared Bat

The federally endangered Northern Long-eared Bat (NLEB), scientific name *Myotis septentrionalis*, was determined to be “not likely to [be] jeopardized” in the Forest Service’s Biological Opinion (BO), despite the BO outlining several adverse effects to the NLEB. Per the BO, jeopardize is defined as to

jeopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species” (50 CFR 402.02). In this section, the Service adds “the effects of the action and cumulative effects to the environmental baseline and in light of the status of the species...formulate[s] the Service’s opinion as to whether the action is likely to jeopardize the continued existence of listed species”” (50 CFR 402.14(g)(4)). (BO pg. 43).

We believe the Wardensville to Virginia State Line project, as proposed, is likely to reduce *Myotis septentrionalis* populations and distribution in the Action Area.

Mist-net surveys conducted in 2019 and 2022 have confirmed the presence of NLEBs in the project’s action area. In 2022, one juvenile NLEB was captured, which “indicates that the construction limits overlap with at least one assumed northern long-eared bat maternity colony” (BO pg. 20). The project area also overlaps with a known NLEB hibernaculum buffer at Dyers Cave, which is approximately 2.78 miles from the project area.

Numerous adverse effects to local NLEB populations are outlined in the Biological Opinion. On page 29, the Forest Service acknowledges that the proposed project will significantly degrade nearly 500 acres of “suitable roosting, foraging, and commuting habitat within the assumed northern long-eared maternity colony home range.” The species status determines that “based on the declining number of northern long-eared bat captures and detections during summer and winter survey efforts in nearby areas (e.g., in the George Washington- Jefferson and Monongahela National Forests), the overall status of the northern long-eared bat in the Action Area is likely declining, as it is rangewide (BO pg. 21). The Forest Service anticipates “juveniles and adult females associated with the assumed maternity colony might be killed [during the first year], as well as adult northern long-eared bats using the hibernaculum buffer that overlaps with the new highway corridor” (BO pg. 38). It is understood that “the majority of northern long-eared bats in the area are expected to permanently move away from the new highway corridor” (BO pg. 33).

According to the USFS, “bat mortality from traffic is expected to increase. Daniel de Figueiredo et al (2021) observed that mortality of bats was higher on 4-lane roads with higher

volume and increased speed vs. 2-lane roads. ... Fensome and Matthews (2016) concluded that roads are a significant collision risk for bats, especially low-flying species.” (BE pg. 11)

Yet, the Biological Opinion claims the project is “not likely to jeopardize” the NLEB, primarily because “the loss of suitable forested habitat (516.6 acres) represents just 5.1 percent of available suitable forested habitat in the Action Area (10,170.5 acres),” and that only 2% of the total maternity buffer “will be affected by tree removal” (BO. pg 46 and 30). In the long term, the BO claims that “following the relocation of the colony, the reproductive output of affected individuals, and thus the maternity colony population, is anticipated to return to pre-project levels” (BO pg. 46).

The Biological Opinion’s “not likely to jeopardize” claim is based on an assumed NLEB migration away from the proposed highway corridor in which the colony is able to recover from, in an area which has seen a rangewide decline of the species’ status due to habitat removal and white-nose syndrome. This analysis does not thoroughly examine the ecological effects of the assumed maternity colony’s potential displacement, of the potential for increased competition within a shrinking habitat, of forest fragmentation on NLEBs, or the quality of remaining habitat. For an federally endangered bat with an already significantly reduced population and distribution, any habitat removal should be carefully considered to a high-level of detail and well-scrutinized. The BO’s conclusions are not sufficiently supported and are worth further study, like that of an Environmental Impact Statement (EIS), the last of which was done in 1996 regarding the Corridor H Wardensville to VA State Line project. We respectfully request a more thorough analysis of the project’s effects on the Northern Long-eared Bat and potential mitigation to reduce negative impacts.

The USFWS said nothing specifically about significant impacts on the National Forest and NFMA/NEPA requirements, only that they determined that the level of anticipated take is not likely to jeopardize the continued existence of the NLEB (BO at pg. 11). It is not apparent that the FWS concurrence addresses impacts, viability, and distribution on the GWNF.

The 2024 BO refers to “the loss of potential primary and secondary Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) roost trees in the hibernaculum buffer”, but not elsewhere. Also, “there are likely many more potential roost trees suitable for use by the northern long-eared bat maternity colony, as well as fall swarming and spring staging northern long-eared bats using the Action Area that will be removed during this action. Therefore, the mitigation plan will serve as only a partial mitigation measure for the loss of potential northern long-eared bat roost trees in the construction limits.”

NLEBs are known to be strongly philopatric, i.e., exhibit home range site fidelity. “Females may experience stress from the loss or degradation of undocumented maternity roosts, foraging habitat, and travel corridors upon their return to their maternity colony as a result of vegetation removal over the winter. They will also be forced to expend extra energy as they

search for new roost trees and foraging areas, resulting in reduced individual fitness, in terms of reproductive success.” (NLEB 2024 BO at pg. 29)

III. The Tuscarora Trail

The Supplemental Environmental Assessment (“SEA”) for the Corridor H expansion between Wardensville and the Virginia/West Virginia state line, released in April 2025, does not appear to document the significance of the long-distance recreational trail that crosses Rt. 55 at the crest of Great North Mountain. In this section of our letter we offer more background on the Tuscarora and Great Eastern Trails to show that the trail deserves consideration as a 4(f) recreation site. We also expand on trail user safety concerns relating to the crossing of Rt. 55, which have long been a concern of trail user groups. We dispute FHWA’s conclusion in the FONSI that Corridor H adheres to the Forest Plan with examples of how it fails to adhere to the Plan. Lastly, we offer stipulations that would help mitigate harm to the recreational site and the Scenic Corridor for the GWJ to include in its Letter of Consent.

a. Background

Tuscarora Trail. Most commonly known as the “TT”, the trail crossing Rt. 55 on Great North Mountain is a major long distance trail used by hikers, mountain bikers, hunters, trail maintainers and equestrians. It was built by volunteers from the Potomac Appalachian Trail Club (PATC) between 1967 and 1981. The portion of the TT crossing Rt. 55, once called the County Line Trail, actually has a much longer history, dating back to before Virginia and West Virginia split into two states. In its entirety the TT connects to the Appalachian Trail in Shenandoah National Park at its southern terminus, and again with the Appalachian Trail north of Harrisburg, Pennsylvania at its north end. The trail is approximately 250 miles long and is a long-distance alternative to the Appalachian Trail in Pennsylvania, Maryland, West Virginia, and northern Virginia. The TT enables a long loop backpack for Mid-Atlantic hikers seeking a large hiking challenge, but many more hikers hike the TT in day length segments only.



The TT is divided into 22 sections. Section 17, which is 11.2 miles long, goes from Dry Gap to Waites Run Rd. The only access point besides the two end points at Dry Gap and Waites

Run Rd. is at the Rt. 55 crossing; hence, the Rt. 55 trailhead is critical for users across the region. PATC volunteers have maintained the TT for its entire 60+ year history. This past year, volunteers worked over 2,000 hours on the TT to keep it open and usable by the public. With grant support from REI, PATC developed and installed a state-of-the-art sign system for the entire 252-mile TT in recent years. During the past 60 years, PATC volunteer hours to maintain the Tuscarora would likely exceed 100,000 hours. PATC has published guidebooks and maps for the entire TT. The Paul Gerhard Shelter, located 4.2 miles south of Rt. 55, is one of 16 shelters built by PATC for trail users. The TT is featured on numerous hiking web sites and on YouTube.

The Old Dominion Equestrian Endurance Organization (ODEEO) sponsors a “No Frills” ride annually that involves numerous equestrians crossing Rt. 55 on the TT. According to Diane Connolly, ODEEO’s Ride Manager,

“I manage the Old Dominion ride that crosses Rt 55 at the Tuscarora Trail crossing. Our ride, No Frills, is held the 3rd weekend in April each year. Our riders cross Rt 55 at the Tuscarora Trail in the early morning on both Friday and Saturday that weekend. The riders cross back over Rt 55 on the Virginia side mid afternoon, further east on Rt 55. We man both these crossings with volunteers as lookouts, for the safety of the horses and riders.” Email correspondence, Diane Connolly, Nov. 22, 2025.

Clearly, the TT at the Rt. 55 crossing has a long history with extensive involvement and use by multiple nonprofits and continues to play a vital role in a network of trails that includes the Appalachian Trail.

Great Eastern Trail. More recently, an alternative long-distance trail to the Appalachian Trail has been developed in the Appalachian range. Known as the Great Eastern Trail (“GET”), this multi-use trail was started in 2007 by the Great Eastern Trail Association, working with the American Hiking Society and local trail partners, to create America’s newest long distance trail for hikers from Alabama to New York. The Great Eastern Trail in Virginia and West Virginia is a cooperative project of Pine Mountain Trail Conference, Potomac Appalachian Trail Club, West Virginia Scenic Trails Association, Southeastern Foot Trails Coalition (SEFTC), American Hiking Society, and The Tugunu Hiking Club.

The GET extends approximately 2000 miles from New York to Alabama and is designed to provide hikers with a more remote recreational experience than is afforded by the more well-known Appalachian Trail. The Great Eastern Trail’s route is concurrent with the TT at the Rt. 55 road crossing. Since the Great Eastern Trail was established after 2003, it was not considered in the 2003 SFEIS/AROD. This highlights a shortcoming of the Corridor H process; an EIS done almost 30 years ago is dated and therefore inadequate.

b. Safety Concerns

Under the proposed new road construction, the highway heading eastbound will drop from four lanes to two immediately west of the trail crossing. Traffic traveling eastbound on Rt. 55 will crest Great North Mountain at the same location where the road loses two lanes, creating a distraction for drivers at the same location that trail users seek to cross the highway. In addition, because the road in West Virginia would be four lanes, average speeds of the vehicles cresting Great North Mountain eastbound would be higher than they are now, plus the new 4-lane would induce more traffic. Both these factors, an increase in speed and an increase in volume of traffic, will dramatically increase risks for trail-users at the highway terminus.

Safety of trail users crossing Rt. 55 has been a PATC concern since Corridor H was first proposed decades ago. The Old Dominion Equestrian Endurance Organization has also expressed concern about safety of horses and riders during their annual “No Frills” Endurance Ride that crosses the TT at Rt. 55. According to Diane Connolly of ODEEO, “*It is already a dangerous crossing with 18 wheelers going 45-55 mph.*” (Email correspondence, Nov. 22, 2025.)

Both the SEA and the FONSI dismiss these safety concerns and offer absolutely no mitigation to improve safety of trail users.

c. Recommended Safety Measures

The intersection of major trails and highway infrastructure presents unique challenges for both recreational users and transportation planners. It is crucial that all parties involved prioritize safety and accessibility, ensuring that the cultural and environmental value of these cherished trails is preserved for future generations.

Because there is no provision for trail user safety in crossing US 55 in the event of new highway construction at or near the West Virginia line, we ask that the USFS incorporate adequate mitigation measures into their Letter of Consent. Following are three options that would make the Rt. 55 crossing safer. The overpass is our preferred safety measure.

- **Overpass** - Build an overpass across Rt. 55 to allow for safe passage for all trail users. It should be wide enough to accommodate two equestrians riding side by side.
- **Tunnel** - Drill a tunnel underneath Rt. 55 for hikers, equestrians, and mountain bikers.
- **Flashing lights** - Erect a caution sign on the WV side with trail user-activated solar-powered flashing yellow lights at an appropriate distance from the trail crossing. Paint white crossing lines and add reflectors to improve visibility. The crossing should be wide enough for two horses led by equestrians.

d. Section 4(f) Recreation Area

As a result of the SEA, the FHWA released a Finding of No Significant Impact (FONSI) in November 2025, which states that the proposed project will not have a significant effect on the human environment, and therefore, an Environmental Impact Statement (EIS) is not required. This FONSI was issued inappropriately because of the project's effects on the TT/GET at this location for two reasons:

The Tuscarora/Great Eastern Trail is a significant 4(f) Recreation Site. Section 4(f) of the U.S. Department of Transportation Act of 1966 applies to this project. Section 4(f) was enacted to ensure that transportation projects consider and protect – among other things – publicly owned parks and recreation areas. Under Section 4(f), the Secretary of Transportation may approve a project that uses such land only if:

- a. There is no feasible and prudent alternative to using that land.
- b. All possible planning has been included to minimize harm to the property.

This requirement has been a cornerstone of transportation policy since the mid-1960s, balancing infrastructure development with environmental and historic preservation goals. Because the Tuscarora Trail within GWNF is publicly owned, open to the public, and designated for recreation, it qualifies as a Section 4(f) resource under federal law. The TT /GET is clearly a significant recreation site. Any transportation project proposing to use or impact this trail must comply with Section 4(f) requirements, meaning it can only proceed if there is no feasible and prudent alternative and all possible planning to minimize harm is included.

Corridor H fails to minimize harm to a significant 4(f) site. According to the GIS map provided by FHWA/WVDOT, the Corridor H route ascending Great North Mountain includes a .25-mile section of east-bound lanes that will be constructed starting where the new 4-lane will be funneled into the existing 2-lane Rt. 55 and continuing to within 600 feet of the state line. This new section will be unusable unless Virginia decides to extend a 4-lane Corridor H to I 81. Located only 70 feet from the TT, this unusable section of road would be excavated, graded, and paved, and it would be a perpetual eyesore for motorists and trails users, greatly diminishing the scenic qualities of Scenic Corridor and of the recreational trails on Great North Mountain.



Unusable section of road shown in turquoise



Map showing distance between unusable road and TT/GET: 70 feet

For almost 30 years, Virginia has shown no interest in extending Corridor H. It would be nearly impossible to overcome all the obstacles to extending Corridor H to I81 that have been detailed in numerous public comments on the project. Furthermore, there is no need or incentive to build an expensive 4-lane through Virginia. These circumstances are not likely to change. Therefore, this .25 section of unusable lanes near the crest of Great North Mountain should be eliminated from the construction plan. We ask that the Forest Service include elimination of this section of unusable road as a stipulation in their Letter of Consent.

e. 7B (Scenic Corridors) Management Prescription

A major flaw of the SEA and FONSI is that both incorrectly declare compliance with the 2014 GWNF Management Plan. The FONSI states that most of Corridor H passes through Management Area 13 (Mosaics of Habitat) which allows roads. Our comments will focus on the last mile of Corridor H on Great North Mountain that will be constructed through undisturbed national forest land that is managed as a Scenic Corridor (Management Prescription 7B). The following bullets are taken from the management prescription standards for Scenic Corridors, 7B (GWNF Plan, Chapter 4, pp. 80-84) followed by our comments in italics:

- The areas are characterized by high quality scenery in a setting conducive to a variety of recreational experiences.
 - *Corridor H would degrade scenery and be detrimental to the significant recreation site that is already in place on Great North Mountain.*
- Human modifications are subordinate to the characteristic landscape.

The addition of a 4-5-lane highway, when added to the existing footprint for Rt. 55, will result in an unnecessarily and unacceptably large cumulative impact on the Scenic Corridor. The GWNF Scenic Corridor in WV is approximately 198 acres. The cumulative footprint of impact from the old and new roads is approximately 77 acres. This includes sediment ponds/stormwater basins, cut areas, fill areas, and the road and shoulder. These human modifications extend from one end of the Scenic Corridor to the other and nearly the entire width.

- The views along the corridors are natural appearing.

The existing Rt. 55 within the viewshed will not be natural appearing. This is a consequence of having two separate roadways in the Scenic Corridor.

- Road corridor improvements ... are evident changes ... and fit well with the character of the surrounding landscape.

The new road will be much straighter and will not fit well with the character of the surrounding landscape.

- Maintain developed recreation facilities, including roads and trails.
 - Provide for public health and safety

Maintenance and use of the TT/GET Trail will face more challenges, most notably an increase in risk to trail maintainers and trail users at the crossing, but also increased noise and exhaust emissions, and diminished scenic qualities. This dangerous crossing also puts drivers at additional risk, especially from snow, ice fog, and darkness and potential collision with horses and equestrians.

- Management activities are designed to meet or exceed the following Scenic Integrity Objectives: High or Moderate

Table 3-3. Scenery Treatment Guide

Activity	Scenic Integrity Objective		
	High	Moderate	Low
Clearcut or Overstory Removal	N/A	B,C,D,F,G,H,M,N,U,V,X	I,O,U,V
Shelterwood	A,B,C,D,F,G,H,J,M,N,P,U,V	A,B,C,D,F,H,M,N,P,U,V,Y	B,L,M,P,U,V
Shelterwood with Reserves	A,B,C,D,F,G,H,J,M,N,U,V	A,B,C,D,F,H,M,N,U,V,Y	B,L,M,U,V
Salvage	A,B,C,D,F,G,H,K,U,V	A,B,C,D,F,H,U,V,Y	B,L,U,V
Uneven-age System	A,B,C,D,F,G,H,I	A,B,C,D,F,G,H,I	I
Any Thinning	A,B,C,D,F,G,H	A,B,C,D,F,G,H	A,B
Maintaining Roadsides	A,B,E,G,S,T,W	A,B,E,S,T,W	A,E,S,T,W
Road Construction or Reconstruction	C,G,H,S,T,W	A,B,C,H,S,T,W	A,B,S,T,W
Temporary Road Construction	C,G,H,S,T,W	A,B,C,G,H,S,T,W	A,B,S,T,W
Utility or Energy Corridor Construction	A,B,C,D,E,G,H,Q,R	A,B,C,D,E,H,Q,R	B,H,Q,R
Prescribed Fire	G, Z, AA, AB, AC, AD	G, Z, AA, AB, AC, AD	G, AB, AC, AD
Utilities (electricity, gas, phone, water, sewer)	AE, AF, AG, AH	AE, AF, AG, AH	

Neither the SEA nor the FONSI analyzed whether Corridor H meets Scenic Integrity Objectives using this Scenery Treatment Guide (GWNF Plan, Chapter 3, pp. 19 to 21)

- Permit new access roads, provided they quickly enter and leave the seen area and do not parallel existing travelways.

Corridor H does not enter and leave the seen area quickly. In fact, it will dominate the landscape as shown on the map below. The gold area is 7B Scenic Corridor. In addition, the new highway parallels the existing Rt. 55.



- Authorize other special uses if consistent and compatible with the goals and objectives of this area.

Corridor H is not consistent or compatible with the goals and objectives of the GWNF Scenic Corridor.

f. Stipulations

As we have discussed, building Corridor H in the location described in the FONSI will have impacts on the TT/GET that violate FHWA regulations and the GWNF Forest Plan. If the road is built as planned, we call for the following stipulations to be included in the GWNF Letter of Consent to address safety of trail users, disturbance of a significant 4F recreation site, and violations of the Forest Plan:

1. Safety Mitigation for Tuscarora Crossing (from most effective to least effective)

- **Overpass.** Build an overpass across Rt. 55 to allow for safe passage for all trail users. It should be wide enough to accommodate two equestrians riding side by side.
- **Tunnel** – Drill a tunnel underneath Rt. 55 for hikers, equestrians, and mountain bikers.
- **Flashing lights** – Erect a caution sign on the WV side with trail user-activated solar-powered flashing yellow lights at an appropriate distance from the trail crossing. Paint white crossing lines and add reflectors to improve visibility. The crossing should be wide enough for two horses led by equestrians.

2. Unusable Section of Road.

- Eliminate the .25-mile section of eastbound lanes that will not be used unless Virginia extends Corridor H to I 81. This will lessen the harm to the TT/GET, which will satisfy both the FHWA's 4(f) requirements and the GWNF Plan.

IV. Conclusion

As outlined in the contents above, various aspects of the Corridor H Wardensville to VA State Line project fail to comply with the 2014 GWNF Forest Management Plan, the National Forest Management Act, the National Environmental Policy Act, and the Endangered Species Act. Wood Turtle, a RFSS and petitioned species, and Northern Long-eared Bat, an endangered species, populations will be irreparably damaged by this project. Since the 1996 EIS, the status and our understanding of these species has changed dramatically. The 2025 Supplemental Environmental Assessment does not thoroughly analyze to a high degree of certainty the adverse impacts this project will have on the relevant species, and if left uncorrected, will greenlight the

further reduction of significant amounts of critical habitat during these species' steepest population decline in history.

Furthermore, the Tuscarora Trail, a long-distance recreational trail maintained by PATC volunteers in collaboration with the GWNF, will be degraded if the project is allowed to go through as-is. Not only will Corridor H diminish the scenic qualities of an area managed as a Scenic Corridor, but it will also create an unsafe situation for both trail-users and drivers. We do not want to see a potential accident be the impetus for standard safety measures; prevention is the best medicine.

The organizations sending this letter care deeply about the GWJNF and are committed to providing constructive input on management decisions. The decision to allow Corridor H to pass through the national forest is a big one. We appreciate your accepting our comments and trust that you will consider adding stipulations to the Letter of Consent for Corridor H to reduce some of its most harmful effects.

Thank you for your time and consideration.

Sincerely,

Bonni McKeown

Ellen Stuart-Haentjens
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Virginia Wilderness
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