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VIA CERTIFIED MAIL AND FAX

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U.S. Fish and Wildlife Service
Office of Endangered Species
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Re: Petition before the United States Fish and Wildlife Service to reinitiate formal consultation on all federal activities that are likely to adversely affect the Gray bat (*Myotis grisescens*); Indiana bat (*Myotis sodalis*); Ozark big-eared bat (*Corynorhinus (Plecotus) townsendii ingens*); and Virginia big-eared bat (*Corynorhinus (Plecotus) townsendii virginianus*)

Petitioners Center for Biological Diversity ("Center"), Heartwood, and Friends of Blackwater, ("Petitioners") hereby respectfully petition the United States Fish & Wildlife Service ("FWS") to cease implementation of, and reinitiate formal consultation under §7 of the Endangered Species Act ("ESA"), 16 U.S.C. §1536(a)(2) for, those federal projects where the federal government has ongoing discretionary actions that are likely to adversely affect legally protected gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), Ozark big-eared bat (*Corynorhinus (Plecotus) townsendii ingens*), and Virginia big-eared bat (*Corynorhinus (Plecotus) townsendii virginianus*). Further, Petitioners request that the FWS withdraw all previously approved incidental take statements affecting these species and initiate emergency rule-making to protect these endangered bats, as described below.

EXECUTIVE SUMMARY

A newly discovered disease, white-nose syndrome, is devastating bat populations in Vermont and New York, and poses the ***gravest threat to bats ever seen***. The syndrome threatens to cause at least four species of imperiled bats to go extinct in the immediate future, and poses a threat to bats that is ***severe, widespread, and immediate***.

- Half the estimated 52,000 endangered Indiana bats that hibernate in New York are located in just one former mine - a mine that is now infected with white nose syndrome.
- In New York, 8,000 to 11,000 bats have already died-the largest die-off of bats due to disease in North America.
- At least 700 endangered Indiana bats were found dead in a New York cave in 2006-2007.

One-fourth the remaining population of endangered gray bats occur in a single cave complex in Alabama. If this cave is infected, gray bat populations could be irreparably decimated. The Fish and Wildlife Service has previously estimated that only 1,600-2,300 endangered Ozark big-eared bats and 6,000 endangered Virginia bats remain. These bats will not survive a death toll in the thousands or even hundreds.

Despite the severe threat facing these imperiled species, federal agencies have taken virtually no action to ensure the species' survival. Further, the Fish and Wildlife Service has permitted, and continues to permit, federal actions that will result in the take of numerous additional endangered bats.

In order to prevent white-nose syndrome from causing the gray bat, Indiana bat, Virginia bat, and Ozark big-eared bat to go extinct, and to comply with its duties under the Endangered Species Act, the Fish and Wildlife Service must withdraw approval for all projects that will result in harm to these endangered species. Further, the Fish and Wildlife Service must reinstate formal consultation with each federal agency that is carrying out projects that may harm the species imperiled by white-nose syndrome, in order to assess the impacts of federal projects on these species in light of the syndrome.

Finally, each federal agency that is carrying out a project that may harm endangered bats that are threatened by white-nose syndrome must immediately cease implementation until the impacts of each project can be fully assessed in light of white-nose syndrome.

WHITE-NOSE SYNDROME IS A GRAVE THREAT TO BATS

White-nose syndrome is a newly discovered disease, believed to be associated with a fusarium mold, that is devastating bat populations in the eastern United States. Scientists know very little about the cause of the die-offs, or whether the white-nose syndrome is the cause or an effect. According to a recent article:

The die-offs could be caused by bacteria or a virus. Or the bats could be reacting

to some toxin or other environmental factor. Whatever it is, afflicted bats are burning through their winter stores of fat before hibernation ends in the spring, and appear to be starving.¹

According to Craig Stihler, a bat specialist with the West Virginia Department of Natural Resources:

The fungus has been identified to the genus *Fusarium*, a common and widespread genus usually associated with plants. Pathologists that have examined the carcasses recovered from the New York sites do not believe the fungus is the main culprit. One guess at this time is that the fungus invades after the bats are stressed by some other factor.²

Some have suggested that the threat may be related to global warming.³ Whatever the cause, white-nose syndrome has already been associated with deaths of thousands, or tens of thousands of bats, and many more are at risk.

- Half the estimated 52,000 federally endangered Indiana bats that hibernate in New York are located in just one former mine - a mine that is now infected with white nose syndrome.⁴
- In New York, 8,000 to 11,000 bats already died.⁵
- At least 700 endangered Indiana bats were found dead in a New York cave

¹ *Why are thousands of bats dying in New York?*, Associated Press, Feb. 14, 2008, located at <http://www.msnbc.msn.com/id/23169737/>. (Viewed Feb. 14, 2008).

² *Unexplained 'White Nose' Disease Killing Northeast Bats*. Environment News Service (ENS) 2008. January 31, 2008. <http://www.ens-newswire.com/ens/jan2008/2008-01-31-094.asp> (Viewed Feb. 10, 2008).

³ Munger Jr., Edward. *Bat deaths tied to warm temperatures*. *Schenectady Daily Gazette*, Feb. 6, 2008. http://www.dailygazette.com/news/2008/feb/06/0206_bats/ (Viewed Feb. 10, 2008)

⁴ Attachment 1, January 30, 2008 Press Release from New York State Department of Environmental Conservation.

⁵ Attachment 2, January 30, 2008 Press Release from the State of Vermont Fish and Wildlife.

in 2006-2007.⁶

The deaths have already been called the largest die-off of bats due to disease documented in North America.⁷ And more bats are gravely at-risk.

In New York, over 200,000 bats are hibernating in caves where white-nose syndrome has already been detected.⁸ One-fourth the total population of endangered gray bats hibernate in one cave complex in Alabama.⁹ Therefore, an infestation or manifestation of white-nose syndrome in Blowing Wind Cave could, based on 1982 numbers, destroy almost half of this species.

In 1995, the Fish and Wildlife Service estimated the total population of endangered Ozark big-eared bats to be between 1,600-2,300.¹⁰ In 1984, the Fish and Wildlife Service estimated the population of endangered Virginia big-eared bat was approximately 6,000.¹¹ None of these species of bats can recover from a massive die-off of thousands.

Bat experts are calling the disease a serious threat to endangered bats. Al Hicks of the New York Department of Environmental Conservation called the die-off sudden and "unprecedented." "Most bat researchers would agree that *this is the gravest threat to bats they have ever seen*," he said.¹²

⁶ See Munger, Jr. Edward. *Mystery Disease Spreads, Threatening Bat Population* Schenectady Daily Gazette, Jan. 31 2008.
http://www.dailygazette.com/news/2008/jan/31/0131_bats/?print (Viewed Jan. 31, 2008)

⁷ Attachment 2, January 30, 2008 Press Release from the State of Vermont Fish and Wildlife.

⁸ *Why are thousands of bats dying in New York?*, Associated Press, Feb. 14, 2008, located at <http://www.msnbc.msn.com/id/23169737/>. (Viewed Feb. 14, 2008).

⁹ U.S. Fish and Wildlife Service. 1982. Gray Bat Recovery Plan. p. 2-3.

¹⁰ U.S. Fish and Wildlife Service. 1995. Ozark Big-Eared Bat (*Plecotus townsendi ingens Handley*) Revised Recovery Plan. Tulsa, OK. p. ii of 51 pp.

¹¹ U.S. Fish and Wildlife Service. 1984. Ozark Big-Eared Bat (*Plecotus townsendi ingens Handley*) and Virginia Big-eared Bat (*Plecotus townsendii virginianus (Handley)*) Recovery Plan. Twin Cities, MN. pp. 12-13. (Adding the figures provided for each state's total population.)

¹² Attachment 1, January 30, 2008 Press Release from New York State Department of Environmental Conservation.

**FEDERAL AGENCIES HAVE A DUTY TO PROTECT THREATENED AND
ENDANGERED BATS**

The Endangered Species Act ("ESA") is the nation's preeminent wildlife conservation law and requires federal agencies to preserve threatened and endangered species. 16 U.S.C. § 1531 *et seq.*

The ESA declares that it is "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." 16 U.S.C. § 1531(c)(1). "Conservation" means "...the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." 16 U.S.C. § 1532(3).

The ESA requires the Fish and Wildlife Service to "develop and implement plans (hereinafter...referred to as 'recovery plans') for the conservation and survival of endangered species and threatened species..." 16 U.S.C. § 1533(f). Drafting a recovery plan is not sufficient to comply with this statutory mandate. Consistent with the intent that recovery plans actually be implemented, Congress required that recovery plans "...incorporate...(i) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species." 16 U.S.C. § 1533(f)(1)(B)(I).

Under the ESA, the Secretary of Interior must review "...other programs administered by him and utilize such programs in furtherance of the purposes of the Act." 16 U.S.C. § 1536(a)(1). The Secretary of Interior has authority under the Act to "promulgate such regulations as may be necessary" to enforce the ESA. 16 U.S.C. § 1540(f).

Finally, the ESA requires all federal agencies to "insure that any action authorized, funded or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species." 16 U.S.C. § 1536(a)(2). Formal consultation results in a biological opinion from FWS that determines if the action is likely to jeopardize the species; if so, the opinion may specify reasonable and prudent alternatives that will avoid jeopardy and allow the action to proceed. 16 U.S.C. § 1536(b)(3)(A). The consultation process involves gathering the best available scientific information, making jeopardy determinations, consulting with affected Tribes, creating a list of reasonable and prudent alternatives where there is jeopardy, and issuing an Incidental Take Statement to mitigate harm from take of listed species. *See* 50 C.F.R. §§ 402.01-402.16.

Under the ESA, federal agencies have an obligation to avoid taking actions that jeopardize the survival and recovery of listed species. *Sierra Club v. Marsh*, 816 F.2d 1376, 1383 (9th Cir. 1987); *NRDC v. Houston*, 146 F.3d 1118, 1127 (9th Cir. 1998). Under the ESA, action agencies have an independent duty to insure that its actions comply with the ESA. 16 U.S.C. § 1536(a)(2).

"Following the issuance of a Biological Opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service's biological opinion." 50 C.F.R. § 402.15(a).

FEDERAL AGENCIES ARE NOT FULFILLING THEIR LEGAL OBLIGATIONS UNDER THE ESA TO CONSERVE ENDANGERED BATS

Under the ESA, federal agencies have a duty to reinitiate consultation with the FWS under certain circumstances, including the discovery of new information.

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the [FWS] where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

- (a) If the amount of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner to or an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or
- (d) If a new species is listed or critical habitat designated that may be affected by the identified action.

50 C.F.R. § 402.16.

Despite the emergence of significant new information demonstrating a grave threat to endangered bats, neither the FWS, Forest Service, or other federal agency has reinitiated consultation for projects that may affect these species.

A. Federal Agencies Are Not Fulfilling Their Duty to Reinitiate Consultation Despite the Newfound Threats to Endangered Bats

The gray bat, Indiana bat, Ozark big-eared bat, and Virginia big-eared bat occur on at least 15 National Forests, at least 18 National Wildlife Refuges, and at least one National Park where numerous federal projects threaten to adversely affect endangered bats and habitat. Further, other federal agencies, including the Department of Defense, Army Corps of Engineers, Tennessee Valley Authority, and Federal Highway Administration are undertaking actions that may

adversely affect endangered bats and their habitat. A list of known Biological Opinions covering the endangered Indiana bat is attached.¹³

While many of these projects has undergone some form of consultation with the FWS in accordance with Section 7 of the ESA, none has undergone new consultation in light of information regarding the threats posed by white-nose syndrome.

Based on the newfound threats posed to bats by white-nose syndrome, federal agencies, including the FWS, must reinitiate consultation under 50 C.F.R. § 402.16.

B. Existing Biological Opinions Do Not Address White-nose Syndrome.

The bat deaths associated with white-nose syndrome occurred, to the best of our knowledge, in the winter of 2006-2007 and are continuing now in the winter of 2007-2008. The Fish and Wildlife Service has not made public when it was first aware of the bat deaths. Despite acknowledging the susceptibility of Indiana bats to disease, the FWS has not and has not included this threat in its draft Indiana bat recovery plan published in May of 2007 or any biological opinion from before or after the deaths occurred.¹⁴

Still, projects that will adversely affect endangered bats are being carried out under old biological opinions that do not take white-nose syndrome into account. In the 2003 Daniel Boone National Forest Ice Storm biological opinion, for example, the FWS allows Forest Service logging of 12,532 acres of Indiana bat habitat.¹⁵

The January 2007 biological opinion for the State of Ohio's Department of Transportation signs off on the take of 22,118 acres of suitable Indiana bat habitat.¹⁶ Additional road construction in Ohio will take, or has taken, up to 10 Indiana bats.¹⁷ Also in Ohio, the Wayne National Forest

¹³ Attachment 3. U.S. Fish and Wildlife Service. 2007. Daniel Boone National Forest Biological Opinion, Appendix C.

¹⁴ See U.S. Fish and Wildlife Service. Indiana bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. April 2007. p. 87

¹⁵ U.S. Fish and Wildlife Service. 2007. Daniel Boone National Forest Biological Opinion, Appendix C.

¹⁶ U.S. Fish and Wildlife Service. 2007. Daniel Boone National Forest Biological Opinion, Appendix C.

¹⁷ *Id.*

biological opinion allows permanent road construction and reconstruction of 392 acres of Indiana bat habitat; temporary road construction of 146 acres; skid trails and log landings of 740 acres; utility development of 50 acres; and fire lines of 74 miles.¹⁸

These biological opinions are in two states - Ohio and Kentucky - where prime summer Indiana bat habitat exists from a partial list of biological opinions affecting endangered Indiana bats. Due to the extent of habitat for endangered gray, Ozark big-eared, and Virginia big-eared bats on federal lands throughout the east, midwest, and southeast, numerous federal actions undoubtedly will affect these species and their habitats as well.

C. The Severity of Threat to Endangered Bats, Combined with the Bats' Susceptibility, Warrants Immediate Reconsultation.

While bat die-offs have been noted in the past, none has been of the scale, magnitude, or severity of white-nose syndrome.¹⁹ As described above, white-nose syndrome has killed, and will likely continue to kill, endangered bats by the thousand or tens of thousands. Further, endangered bats are particularly susceptible.

The most recent draft recovery plan for the Indiana bat has no mention of white-nose syndrome, but does highlight the species' sensitivity to disease:

Generally, infectious disease is not cited as a major factor in the decline of bat populations, including the Indiana bat. However, Messenger et al. (2003) cautioned that mortality is a poorly understood aspect of the natural history of bats; the significance of various factors, including disease, on the overall mortality of a population of bats has rarely been documented. Further, species already threatened with degradation (including contamination) of their habitats may be particularly sensitive to disease outbreaks. The stress of migration can also contribute to the susceptibility of animals to disease, as has been suggested for rabies-related mortality in bats (Messenger et al. 2003). Because Indiana bats fly, are widely distributed, and are highly gregarious, they may be particularly vulnerable to disease occurrence and transmission.²⁰

¹⁸ *Id.*

¹⁹ See Clark, D.R., Jr. 1981. Bats and environmental contaminants: a review. USDI Fish and Wildlife Service Special Scientific Report. Wildlife No. 235, 27 pp., Table 1. (Three of these die-offs were in Australia; the remaining die-offs in North America.)

²⁰ U.S. Fish and Wildlife Service. Indiana bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. April 2007. p. 87.

The World Conservation Union has also noted bats' vulnerability.

In view of the relative lack of knowledge about bats and their conservation biology, a number of field researchers have suggested that the precautionary principle be applied to assessments of the status of bats. Such an approach may imply that an even greater number of bat species should be considered, at best, data deficient, or at worst, at risk than currently meet strict IUCN Red List criteria.²¹

In 1982, the Fish and Wildlife Service estimated that the total population of gray bats was approximately 1.6 million gray bats.²² A little less than half of this total population hibernate in one cave complex in Alabama. Therefore, an infestation or manifestation of white-nose syndrome in Blowing Wind Cave could, based on 1982 numbers, destroy almost half of this species. The Gray bat, perhaps more than any other bat, is vulnerable to white-nose syndrome due to its year-round reliance on caves:

The gray bat is, perhaps, the most restricted to cave habitats of any U. S. mammal. With rare exception it roosts in caves year-round. Because of highly specific roost and habitat requirements, fewer than 5% of available caves are suitable for occupation by gray bats. Colonies move seasonally between unusually warm and cold caves.²³

In 2007, the Fish and Wildlife Service estimated the total population of Indiana bats to be 513,398.²⁴ It is unclear whether this estimate included the 700 Indiana bats found dead in a New

²¹ P.A. Racey and A.C. Entwistle, 2003. "Conservation Ecology of Bats," p. 683. in Kunz, Thomas, ed. Bat Ecology. Univ. of Chicago Press.

²² U.S. Fish and Wildlife Service. 1982. Gray Bat Recovery Plan. p. 8.

²³ U.S. Fish and Wildlife Service. 1982. Gray Bat Recovery Plan. p. 4; *See also Tuttle, Merlin D.*, "Status, Causes of Decline, and Management of Endangered Gray Bats." *J. Wildl. Manage.* 43(1):1-17(1979)(This article is included in its entirety in the 1982 Recovery Plan.)

²⁴ http://www.fws.gov/midwest/Endangered/mammals/inba/inba_2007pop.html (viewed February 8, 2008).

York hibernaculum the winter of 2006-2007.²⁵ What is clear is that the FWS listed the Indiana bat as an endangered species in 1967 when population estimates were between 850,000-900,000 Indiana bats.²⁶ In over 40 years of protection, the Indiana bat population has never recovered to the point that protection was no longer necessary. With the loss of tens of thousands of additional individuals, it may never recover.

In 1995, the Fish and Wildlife Service estimated the total population of Ozark big-eared bats to be between 1,600-2,300.²⁷ In 1984, the Fish and Wildlife Service estimated the population of the Virginia big-eared bat was approximately 6,000.²⁸ These species of bats cannot recover from a massive die-off of thousands.

PETITIONERS

Petitioners' specific interests are implicated by the current management of the Indiana bat, gray bat, Ozark big-eared bat, and Virginia big-eared bat on federal lands in light of the serious threat related to White-nose syndrome.

Petitioner Center is a non-profit corporation dedicated to the preservation, protection, and restoration of biodiversity, native species, and ecosystems. The Center has more than 40,000 members worldwide, including members in New York and Vermont. A great deal of the Center's work is focused on protecting endangered and threatened species and their critical habitat under the Endangered Species Act. The Center is working to reduce and eliminate the impacts to listed bats and to ensure the conservation of these ecosystems and the species that depend upon them for their survival. The Center's members use and enjoy the federal lands where the affected bats are located, and will be harmed if these bats are extirpated.

²⁵ See Munger, Jr. Edward. *Mystery Disease Spreads, Threatening Bat Population* Schenectady Daily Gazette, Jan. 31 2008.
http://www.dailygazette.com/news/2008/jan/31/0131_bats/?print (Viewed Jan. 31, 2008)

²⁶ The Indiana bat was first listed as an endangered species March 11, 1967, 32 Fed. Reg. 4001, under the Endangered Species Preservation Act of October 15, 1966. 80 Stat. 926; 16 U.S.C. 668aa(c). This protection continued under the ESA. 16 U.S.C. §§ 1531, *et seq.*

²⁷ U.S. Fish and Wildlife Service. 1995. Ozark Big-Eared Bat (*Plecotus townsendi ingens Handley*) Revised Recovery Plan. Tulsa, OK. p. ii of 51 pp.

²⁸ U.S. Fish and Wildlife Service. 1984. Ozark Big-Eared Bat (*Plecotus townsendi ingens Handley*) and Virginia Big-eared Bat (*Plecotus townsendii virginianus (Handley)*) Recovery Plan. Twin Cities, MN. pp. 12-13. (Adding the figures provided for each state's total population.)

Heartwood is a non-profit corporation with a focus on environmental issues, particularly the protection of forests in the eastern United States. Heartwood is active in the protection of forests and native species of the eastern United States. Heartwood is involved in a broad range of environmental issues, and its members have dedicated themselves to preserving and enhancing the environment in Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Virginia, and West Virginia. Members regularly use and enjoy the environment, waters, forests, air and lands of these states, including federal lands and National forests. Members include amateur biologist, photographers, and wildlife enthusiasts who enjoy knowing the Gray bat, Indiana bat, Ozark big-eared bat, and Virginia big-eared bats are alive and well, who study and enjoy bat habitat, and who will be harmed if bats are extirpated.

Friends of Blackwater is a conservation organization working in the Mid-Atlantic Appalachian Highlands to protect key landscapes and natural and human communities, and to promote economic development that maximizes biodiversity and outdoor recreational opportunities for future generations.

RELIEF REQUESTED

Petitioners respectfully request that the FWS immediately undertake the following actions:

- Initiate emergency rule-making under 16 U.S.C. § 1540(f) to close caves and mines where significant populations of gray bats (*Myotis grisescens*); Indiana bats (*Myotis sodalis*); Ozark big-eared bats (*Corynorhinus (Plecotus) townsendii ingens*); and Virginia big-eared bats (*Corynorhinus (Plecotus) townsendii virginianus*), and little brown bats (*Myotis lucifugus*) hibernate.
- Withdraw all previously approved Incidental Take Statements authorizing take of the Gray bat (*Myotis grisescens*); Indiana bat (*Myotis sodalis*); Ozark big-eared bat (*Corynorhinus (Plecotus) townsendii ingens*); and Virginia big-eared bat (*Corynorhinus (Plecotus) townsendii virginianus*) until such time as formal consultation is reinitiated and completed in light of white-nose syndrome.
- Allocate additional funding to research the causes, cure, and prevention of white-nose syndrome, in order to take immediate remedial action. Such research must address the causes, containment methods, and solutions to white-nose syndrome.

Until the extent of the deaths is known, all known agency actions that are "likely to adversely affect" the Gray bat, Indiana bat, Ozark big-eared bat, and Virginia big-eared bat must cease and

desist. All incidental take statements issued to any government agency (excluding actions for the national defense) for the aforementioned bat species should be suspended until such time as formal consultation is reinitiated and completed in light of the WNS.

CONCLUSION

The threats to endangered bats from white-nose syndrome are severe, widespread, and immediate, and failure to undertake instant action could cause these species to go extinct. Petitioners request that the FWS revoke the Biological Opinions issued for the Gray Bat, Indiana bat, Ozark big-eared bat, and Virginia big-eared bat and re-initiate consultation in light of the white-nose syndrome. Once the Biological Opinions are revoked, all discretionary activity that is "likely to adversely affect" listed bats must stop until legal Biological Opinions that incorporate the new information are issued.

Petitioners are willing to assist the FWS seek funds from Congress to identify the cause of the deaths associated with white-nose syndrome. But bats cannot wait for Congress to act. Federal agencies must take the lead immediately, and in consideration of the grave threat facing North American bats, in stopping all harmful, discretionary activity affecting listed bats on federal lands or through federal actions.

Respectfully submitted,

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on behalf of Center for Biological Diversity,
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