CENTER FOR BIOLOGICAL DIVERSITY

Beyond Pesticides, Californians for Alternatives to Pesticides, Center for Food Safety, Local Harvest, Nebraska Sustainable Agriculture Society, Northeast Organic Farming Association—Connecticut, Northeast Organic Farming Association—Vermont, Organic Consumers Association, Organic Seed Growers and Trade Association and The Endocrine Disruption Exchange (TEDX)

Via Facsimile and Certified Mail, Return Receipt Requested

May 25, 2011

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Re: 30-Day Notice of Intent to Sue Under the Administrative Procedure Act, 5 U.S.C. 706(a)(1): Unreasonable Delay in Responding to a Petition to Protect Bat Populations from the Threat of White-Nose Syndrome

Dear Secretary Salazar, Acting Director Gould, Secretary Vilsack, and Secretary Gates:

Over one year ago, the Center for Biological Diversity ("Center") formally petitioned Secretary of Interior Ken Salazar, Secretary of Agriculture Tom Vilsak, and Secretary of Defense Robert Gates, pursuant to the Administrative Procedure Act, 5 U.S.C. § 553 ("APA"), to take immediate steps to respond to the emerging threat posed to bat

populations from white-nose syndrome ("WNS").[1] Your agencies have not responded to the Center's Petition or to the threat of WNS itself, while WNS has swept throughout the eastern U.S., and now threatens to infect caves and mines on federal public lands in the West. As explained below, we hereby inform you that if you do not respond to the Center's petition, including by acting immediately to protect bats from WNS, *within 30 days*, the Center and several additional organizations concerned about the growing threat of WNS – including Beyond Pesticides, Californians for Alternatives to Pesticides, Center for Food Safety, Local Harvest, Nebraska Sustainable Agriculture Society, Northeast Organic Farming Association—Connecticut, Northeast Organic Farming Association—Vermont, Organic Consumers Association, Organic Seed Growers and Trade Association and The Endocrine Disruption Exchange (TEDX)– will initiate litigation in federal district court to force you to act in accordance with the APA and your statutory duties.

I. Background

When the Center filed its Petition, six North American bat species were documented to be affected and killed by WNS: the Indiana bat (*Myotis sodalis*); little brown bat (*Myotis lucifugus*); eastern small-footed bat (*Myotis leibii*), northern long-eared bat (*Myotis septentrionalis*), tri-colored bat (*Perimyotis subflavus*), and big brown bat (*Eptesicus fuscus*). The Center noted that if Secretary Salazar, Secretary Vilsak, and Secretary Gates (the "Secretaries") did not take certain, legally-required actions immediately, the disease could spread to the South and West and ultimately lead to the extinction of several bat species. The Center therefore petitioned the Secretaries to immediately:

(1) close all caves and mines on federal lands that are known to harbor bats, particularly the gray bat, Indiana bat, Ozark big-eared bat (*Corynorhinus (Plecotus) townsendii ingens*), Virginia big-eared bat (*Corynorhinus (Plecotus) townsendii virginianus*), lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*), Mexican long-nosed bat (*Leptonycteris nivalis*), little brown bat, eastern small-footed bat, northern long-eared bat, and tri-colored bat[2];

(2) promulgate a rule governing the unlawful take of endangered and threatened bats under Section 9(a)(1)(B) of the Endangered Species Act, 16 U.S.C. § 1538(a)(1)(B); and

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[1] *See* Center for Biological Diversity, *Petition for rulemaking to enact immediate cave closures to protect bat species from white-nose syndrome; to promulgate a rule governing the "take" of endangered bat species; and to designate as significant all caves on federal lands in the continental United States* (Jan. 21, 2010) ("Petition") (Attachment and available at http://www.biologicaldiversity.org/campaigns/bat_crisis_white-nose_syndrome/pdfs/Cave-petition-01-21-2010.pdf).

[2] The gray bat, Indiana bat, Ozark big-eared bat, Virginia big-eared bat, lesser long-nosed bat, and Mexican long-nosed bat are already listed as "endangered" under the Endangered Species Act due to numerous threats. These species are put at grave risk of extinction from the additional threat of WNS.

(3) identity and designate as "significant" under the Federal Cave Resources Protection Act, 16 U.S.C. §§ 4301-4309, all caves located on federal public lands.

The Center asked that its Petition be considered an "emergency."

To date, the agencies have not provided a formal response to the Center's Petition. Meanwhile, the threat posed by WNS has grown into a major catastrophe, with virtually no response from the U.S. Bureau of Land Management ("BLM") and little action by the Departments of Interior, Agriculture, and Defense.

Indeed, first documented in 2006 in a cave in upstate New York, WNS has since spread to and been confirmed in 17 more states and four Canadian provinces. The fungal pathogen associated with the disease has been found on bats in two additional states, including western Oklahoma, which places it dramatically closer to the western United States. At least one million bats have died.[3] In affected bat colonies, mortality rates reach nearly 100 percent, virtually emptying caves once harboring tens of thousands of bats and leaving cave floors littered with small bones. The U.S. Fish and Wildlife Service ("FWS") has called WNS the "worst wildlife health crisis in memory".[4]

WNS now threatens more than half of North American bat species, including four of the six endangered bat species in the United States.[5] WNS threatens even once-common species like the little brown bat, which is now considered to be in imminent danger of extinction due to the threat of WNS. For this reason, the Center and its allies requested in December 2010 that FWS conduct a status review of the species, and meanwhile, list the little brown bat as "endangered" or "threatened" on an emergency basis under the Endangered Species Act, 16 U.S.C. §§ 1531-1544.[6] The Center has also petitioned

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[3] Boyles, J.G., P.M. Cryan, G.F. McCracken and T.H. Kunz. 2011. "Economic importance of bats in agriculture." Science 332 (6025): 41-42,.DOI: 10.1126/science.1201366 (Attachment and available at http://www.fort.usgs.gov/Products/Publications/23069a/23069a.pdf).

[4] *See* FWS: About White-Nose Syndrome (Attachment and available at http://www.fws.gov/whitenosesyndrome/about.html) (last visited April 11, 2011). *See also* Rick Steelhammer, *Bat disease could prompt more scrutiny for mining permits*, (Sep. 1, 2010) (quoting Jeremy Coleman, national WNS coordinator for FWS, calling WNS "the most precipitous decline in North American wildlife in our history") (available at http://www.wvgazette.com/News/201009010863) (last visited April 11, 2011).

[5] Steelhammer, *Bat disease could prompt more scrutiny for mining permits*, (Sep. 1, 2010) (Mike Armstrong, FWS's Frankfort, Kentucky field office, stating that: "Of the endangered bats, the Indiana bat seems to be the most vulnerable species. Since the WNS was first detected in a cave in New York four years ago, the Indiana bat population in that state has declined by more than 60 percent.").

[6] FWS officials have observed that at current mortality rates, the little brown bat is on track for possible extinction in about 30 years. *See* Steelhammer, *Bat disease could prompt more scrutiny for mining permits*, (Sep. 1, 2010) (attributing comment to Armstrong, FWS Frankfort, Kentucky field office).

FWS to list the eastern small-footed bat and the northern long-eared bat under the ESA due to the threat of WNS.[7]

Bats provide enormous ecological benefits by eating moths, beetles and other insects whose populations would otherwise go largely unchecked. In the United States, bats prey on prominent agricultural pests like cucumber beetles, stinkbugs, and at least two major pests of corn crops. For example, the little brown bat, a species commonly found across much of the continent and severely affected by WNS, eats at least half its weight in insects every summer night.[8] In an agricultural region of Texas, a study found that the value of bats' pest-eating services to local farmers totaled an estimated $741,000 per year, for a crop worth $4.6 million to 6.4 million.[9] Studies of bats in the tropics have shown that bats there consume as many or more plant-eating insects as birds do, providing tremendous protective benefits to both forests and farm crops.[10] Farmers, such as those in organic agriculture who have made natural pest control a central strategy of crop management, are losing a valuable ally. At the least, the use of pesticides will likely have to increase, which will have cascading effects in the environment, including by compounding an existing threat to bat populations.[11] Researchers have estimated that the loss of insect-eating bats in North America could lead to agricultural costs of between $3.7 billion and $53 billion per year.[12]

Regions of the country where agricultural losses may be greatest if bat populations continue to decline severely include the northern and southern Great Plains, Great Lakes states, Mississippi Valley, Central Valley of California, southern Arizona and Pacific

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[7] *See* Center for Biological Diversity, *Petition to list the eastern-small footed bat* Myotis leibii *and northern long-eared bat* Myotis septentrionalis *as threatened or endangered under the Endangered Species Act.* (Jan. 21, 2010) (Attachment and available at http://www.biologicaldiversity.org/campaigns/bat_crisis_white-nose_syndrome/pdfs/petition-Myotisleibii-Myotisseptentrionalis.pdf).

[8] Kunz, T.H. 1980. "Daily energy budget of free-living bats." Proc. 5th Int. Bat Research Conf. Texas Tech. Lubbock: 369-392, (Attachment and available at http://www.bu.edu/cecb/files/2009/08/procettech-434pp1980.pdf_).

[9] Cleveland, C. J., M. Betke, P. Federico, et al. 2006. "Economic value of the pest-control service provided by Brazilian free-tailed bats in south-central Texas." Front. Ecol. Environ. 4(5):238-243. (Attachment and available at http://www.esajournals.org/doi/pdf/10.1890/1540-9295%282006%29004%5B0238%3AEVOTPC%5D2.0.CO%3B2).

[10] Kalka, M.B., A. R. Smith and E. S. V. Kalko. 2008. "Bats limit arthropods and herbivory in a tropical forest," Science 320: 71. (Attachment and available at http://facstaff.unca.edu/cnicolay/BIO379/Kalka-2008.pdf). Williams-Guillén, K., I. Perfecto and J. Vandermeer. 2008. "Bats limit insects in a Neotropical agroforestry system," Science 320:70. (Attachment and available at http://www.sciencemag.org/content/320/5872/70.short).

[11] Racey, P. A. and A. C. Entwistle. 2003. "Conservation ecology of bats," Pp. 695, 696 **in** Bat Ecology, T.H. Kunz and M.B. Fenton, eds. University of Chicago Press. (Attachment of relevant pages.)

[12] Boyles et al. 2011.

Northwest. In the West, farmers in counties in Montana, Idaho and Colorado could also see their costs rise considerably if bats continue to disappear.[13]

Although it is known that bats can spread the disease to other bats, there is also strong evidence to suggest that humans spread the disease to new regions beyond the dispersal capability of bats. WNS has been identified on bats in at least eight, and possibly 12, European countries without apparent negative effects to European bat species, suggesting that the WNS fungus is a native organism in Europe and one to which European bats have evolved immunity over a long period of exposure.[14] In North America, the fungus was not known prior to 2006, when it began killing bats in a commercial cave, strongly indicating that the disease was brought to North America via people who had visited caves in Europe.[15]

Cave closure policies on western public lands thus have the potential to help stop the spread of WNS—and, accordingly to benefit agriculture—throughout a broad area. This is because hibernating bats migrate from hibernacula during the summer season—in eastern bats up to a few hundred miles[16]—and thus, the reduction and continued disappearance of bat populations will result in lost insect suppression services miles beyond the immediate vicinity of a hibernaculum. Once WNS is introduced into a new

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[13] Ibid.

[14] Stokstad, E. 2010. "Europe's bats resist fungal scourge of North America," Science 327: 132 (Attachment and available at http://www.sciencemag.org/content/327/5962/132.2.summary); Frick, W. F., J. F. Pollock, A.C. Hicks, et al. 2010. "An emerging disease causes regional population collapse of a common North American bat species," Science 329: 679-682. (Attachment and available at DOI: 10.1126/science.1188594); Wibbelt, G., A. Kurth, D. Hellmann, et al. 2010. "White-nose syndrome fungus (*Geomyces destructans)* in bats, Europe. Emerg. Infect. Dis. 16(8): Aug. 2010 (Attachment and available at http://www.cdc.gov/eid/content/16/8/1237.htm); Martinkova, N., P. Backor, T. Bartonicka, et al. 2010 "Increasing incidence of *Geomyces destructans* fungus in bats from the Czech Republic and Slovakia." PLoS ONE 5(11): e13853 (Attachment and available at doi:10.1371/journal.pone.0013853); Puechemaille et al. 2011. "Pan-European distribution of white-nose syndrome fungus (*Geomyces destructans*) not associated with mass mortality." PLoS ONE 6(4):e19167 (Attachment and available at doi:10.1371/journal.pone.0019167).

[15] Castle, K. T. and P. M. Cryan. 2010. "White-nose syndrome in bats: A primer for resource managers." ParkScience 27(1) (Attachment and accessed 03 May 2011 from http://www.nature.nps.gov/ParkScience/index.cfm?ArticleID=395) ("Bats do not naturally migrate between Europe and North America, so if *G. destructans* was recently introduced to the United States, it is highly unlikely that it arrived here on the wings of a bat without human assistance…The fact that the same fungus exists on two continents provides compelling evidence of long-distance, human-assisted spread.").

[16] S. R. Humphrey and J. B. Cope. 1976. Population ecology of the little brown bat, *Myotis lucifugus*, in Indiana and North-Central Kentucky. American Society of Mammalogists: Special Publication No. 4. (Available at http://www.archive.org/details/populationecolog00hump), (Indiana bats traveled an average of 286 miles between hibernacula and summer locations.); Kurta, A. and S. W. Murray. 2002. "Philopatry and migration of banded Indiana Bats (*Myotis sodalis*) and effects of radio transmitters." Journal of Mammalogy, 83(2): 585-589. (Available at http://www.asmjournals.org/doi/abs/10.1644/1545-1542%282002%29083%3C0585%3APAMOBI%3E2.0.CO%3B2?journalCode=mamm).

region, bats can spread the illness further, widening the swath of bat loss and the concomitant reduction in their pest-control activities.

Thus, for example, if WNS is introduced by a caver into a bat cave on BLM land in southern Idaho, the contagion could eventually affect bats, and as a result, farmers, throughout the entire Snake River Plain region. While the pathways by which WNS could spread from bat to bat throughout a given part of the West are unclear, what does seem true from the experience of WNS in the East is that the malady can spread very rapidly in a local area, and bat colonies can crash within two to three years of first exposure to the pathogen. If this dynamic holds true in the West, the introduction of WNS to a western bat hibernaculum in 2011, if it were to occur, could begin wreaking havoc on resident bats by 2012. Within another year or two, bat populations in the local region and beyond could be dying, with ripple effects to regional farming operations and the environment.

II. The Agencies' Inadequate Response

A. The Agencies Have Failed to Close Caves in Advance of the Spread of WNS

Although caves and mines have been closed in the eastern United States where WNS has already taken hold, caves and mines across millions of acres of federal lands in the West, where closures could potentially prevent the spread of the disease to new areas, remain open.

As of January 2011, most federal caves and abandoned mines in states east of the Mississippi River are administratively closed to nonessential human access. In the West, by contrast, only the Rocky Mountain Region of the Forest Service, which includes Nebraska, Kansas, Colorado and parts of South Dakota and Wyoming, has closed caves and abandoned mines. The only other cave closures in the West include national wildlife refuge lands, limited closures in some national parks, a partial closure of caves on BLM lands in New Mexico and a couple of caves on BLM lands in Wyoming. This leaves caves and abandoned mines open and exposed on the majority of federal lands in the West, including all remaining BLM lands and the balance of Forest Service lands in the West.[17]

Yet, it is precisely those regions, such as the West, where the disease has not yet appeared that cave closures are most needed. As FWS has recognized since early 2009, WNS must be stopped before new areas are infected, and the only way to do this is to close caves. Protocols have been established for decontaminating caving gear, and cavers have been urged not to enter hibernation caves throughout the East, South and Midwest—but these measures, while helpful, are quite painstaking and even if carried

[17] A complete reporting of federal lands cave closures as of January 2011 is found in the Center's report: *Bats, White-Nose Syndrome, and Federal Cave and Mine Closures* (Jan. 26, 2011) (Attachment and available at: http://www.biologicaldiversity.org/campaigns/bat_crisis_white-nose_syndrome/pdfs/bat_report_jan2011.pdf).

out well are not a complete guarantee that fungal material will be removed from contaminated clothing and gear. This has been acknowledged by FWS, who concluded there is simply no way to guarantee efficacy of decontamination procedures "for all equipment in all circumstances" and such procedures "may not adequately address needs for technical or vertical gear."[18]

Because of the transport of the disease by people, it is vital that caves in currently WNS-free areas be protected by a strict cave closure policy. Once WNS is introduced into a new area, bats themselves can transport the fungal pathogen locally, up to a few hundred miles radius. Restricting human access is still important to minimize transport of the fungus, but the worst damage will have been done by the initial introduction of the fungus into a new region. Had the agencies taken necessary steps earlier, WNS might not have spread as far as it has, but there is no excuse to fail to act and ensure that they are doing everything possible to stop the further spread of WNS.

B. FWS Has Failed to Promulgate A Take Regulation

The Center's petition also requested FWS to immediately promulgate a rule governing the unlawful take of endangered and threatened bats under Section 9(a)(1)(B) of the Endangered Species Act, 16 U.S.C. § 1538(a)(1)(B). Such a rule would govern the "take" of endangered bat species, and prohibit the transfer of materials from areas where WNS has been confirmed to caves and mines in areas where WNS has yet to be confirmed. Such a rule would help stop the spread of WNS to threatened and endangered bat species by making such transfers, whether knowing or not, a violation of the ESA's prohibition against "take" of listed species. 16 U.S.C. § 1538(a)(1)(B). Such a rule should specify that persons traveling between caves may be engaging in an illegal activity and therefore subject to penalties under the ESA, should apply to all persons including state and private landowners that permit persons to travel to caves under their jurisdiction, and apply not just to caves known to harbor listed bat species, but to all caves harboring bats due to the possibility that WNS can spread between bats in addition to anthropogenic spread. The rule should also specify the necessary actions to avoid take, including cave closures, avoiding travel between caves, and the disposal of clothes, equipment or other materials used within caves located in regions where WNS has been confirmed.

Despite recognizing the threat posed by WNS—and, even closing all caves and abandoned mines on national wildlife refuge lands—FWS has failed to promulgate a take regulation under the Endangered Species Act. Such a rule is critically important to contain WNS. FWS's failure to act is unreasonable.

C. The Agencies Have Failed to Identity and Designate as "Significant" under the Federal Cave Resources Protection Act All Caves on Federal Public

[18] *See* FWS, Cave Advisory (Mar. 26, 2009) (Attachment and available at http://www.fws.gov/WhiteNoseSyndrome/caveadvisory.html).

Lands

The Center also petitioned the Secretaries of Interior and Agriculture to designate caves on National Forest System lands and lands within the jurisdiction of the Department of Interior—including BLM and National Park Service lands—as "significant" under the Federal Cave Resources Protection Act, 16 U.S.C. § 4303(b). The Center explained that FCRPA designation would provide another basis for implementing closures and other measures to protect bats at risk. Once designated as "significant" under the FCRPA, the Secretaries of Interior and Agriculture could better regulate and restrict the use of such caves in a comprehensive manner. *Id.*

As the Center explained, the threat posed by WNS to bat populations adds import and urgency to the cave designation and protection measures for public and national forest lands. The urgency for designation as "significant" has grown since the Center filed its petition. Having already decimated eastern bat populations, unaffected caves have become increasingly important as holdouts against extirpation and as population reservoirs for recolonization of areas devastated by WNS. The immediate designation of bat-inhabited caves on national forest lands will confer another layer of protection to bats and the cave ecosystems of which they are a part.

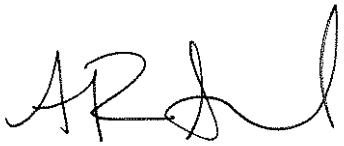
The FCRPA specifically requires the Secretaries of Interior and Agriculture to consider this request, as "[e]ach cave recommended to the Secretary by interested groups for possible inclusion on the list of significant caves shall be considered by the Secretary, and shall be added to the list if the Secretary determines that the cave meets the criteria for significance as defined by regulations." 16 U.S.C. § 4303(b)(1)(B). Moreover, in updating the list of significant caves, the Secretary must "assure that caves under consideration for the list are protected during the period of consideration." *Id.*

Despite the mandates of the FCRPA, the Secretaries of Interior and Agriculture have failed to act. There is no excuse for their failure to do so.

III. Conclusion

You have had enough time to respond to the Center's petition. If you do not take immediate steps to respond in 30 days, the Center and Beyond Pesticides, Californians for Alternatives to Pesticides, Center for Food Safety, Local Harvest, Nebraska Sustainable Agriculture Society, Northeast Organic Farming Association—Connecticut, Northeast Organic Farming Association—Vermont, Organic Consumers Association, Organic Seed Growers and Trade Association and The Endocrine Disruption Exchange (TEDX) will seek to force you to comply with your obligations, and initiate litigation in federal state court. If you wish to avoid this or discuss this letter, please have agency solicitors or counsel contact me at the contact information below. Thank you.

Sincerely,



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