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Via Certified Mail with Return Receipt Requested and Electronic Mail

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**Re: 60-Day Notice of Intent to Sue for Violations of the Endangered Species Act
Concerning Bureau of Land Management's December 13, 2016 Oil and Gas Lease
Sale in the Wayne National Forest in Ohio**

Dear Interim Director Kurth, Chief Tidwell, Acting Director Bail, and Acting Secretary Haugrud:

On December 13, 2016, the Bureau of Land Management ("BLM") auctioned 719 acres of the Wayne National Forest's Marietta Unit, opening it up to large-scale, high-volume hydraulic fracturing (or "fracking") of the Utica and Marcellus shales for the first time. Large-scale fracking operations in the Wayne will industrialize Ohio's only national forest and harm imperiled species listed under the Endangered Species Act ("ESA"). 16 U.S.C. § 1531, *et seq.* Land clearing for well pads and pipelines will destroy important habitat for the endangered Indiana bat, while fracking will require tremendous amounts of water and heighten the risk of spills and leaks from fracking chemicals and wastewaters, degrading and diminishing streams

that support the bat and listed mussels. BLM and the Forest Service, however, failed to ensure that new fracking activities in the Wayne will not jeopardize these species.

Accordingly, this letter provides notice on behalf of Center for Biological Diversity, Ohio Environmental Council, Sierra Club, and Heartwood (“Environmental Groups”) to inform you of violations of Section 7 of the ESA, 16 U.S.C. § 1536, concerning the Forest Service’s and BLM’s approvals of the December 2016 lease sale. Specifically, the Environmental Groups intend to file suit to challenge:

- (1) BLM, the Forest Service, and Fish and Wildlife Service’s (“FWS”) failure to consult over the impacts of new oil and gas leasing, including site-specific impacts, on the Indiana bat and Northern long-eared bat, as well as fanshell, pink mucket pearly mussel, sheepsnose, and snuffbox mussel (“listed mussels”), in violation of 16 U.S.C. § 1536(a)(2);
- (2) BLM, the Forest Service, and FWS’s failure to reinstate consultation on the 2005 Biological Opinion for the Forest Service’s 2006 Land and Resource Management Plan for the Wayne National Forest, in light of new information about fracking, climate change, and white-nose syndrome, in violation of 50 C.F.R. § 402.16;
- (3) BLM’s and the Forest Service’s unlawful reliance on the outdated 2005 Biological Opinion for their authorization of new oil and gas leasing, in violation of 16 U.S.C. § 1536(a)(2);
- (4) BLM’s and the Forest Service’s failure to “insure” that their authorization of new oil and gas leasing in the Marietta Unit “is not likely to jeopardize the continued existence of” the listed mussels, endangered Indiana bat, and Northern long-eared bat, or “result in the destruction or adverse modification” of their critical habitat, in violation of 16 U.S.C. § 1536(a)(2);
- (5) BLM and the Forest Service’s failure to maintain the status quo pending the completion of Section 7 consultation over the December 2016 lease sale and 2006 Land and Resource Management Plan for the Wayne National Forest, in violation of 16 U.S.C. § 1536(d).

Unless your agencies take immediate steps to correct these violations, we intend to file suit in 60 days, and will seek declaratory and injunctive relief as well as reasonable litigation costs and attorneys’ fees, for these violations of the ESA. 16 U.S.C. § 1540(g).

I. Factual Background

On December 13, 2016, BLM auctioned 17 parcels totaling 719 acres in the Wayne National Forest’s Marietta Unit, opening it up to large-scale, high-volume hydraulic fracturing (or “fracking”) of the Utica and Marcellus shales for the first time. The Forest Service consented to this lease sale, pursuant to 30 U.S.C. § 352 and 36 C.F.R. § 228.102(e).

BLM and the Forest Service's approvals of the lease sale rested on several prior approvals and environmental reviews. These prior approvals and reviews, however, did not take into account significant information concerning fracking and horizontal drilling, climate change, and white-nose syndrome.

First, in 2006, the Forest Service approved the Final Revised Land and Resource Management Plan for the Wayne National Forest ("2006 Forest Plan"), which made available 238,000 acres of the Wayne National Forest, including the Marietta Unit, for oil and gas leasing.¹ The BLM was purportedly a cooperating agency in development of the 2006 Forest Plan and its related Final Environmental Impact Statement ("2006 FEIS") prepared under the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.*² To inform the 2006 FEIS's effects analysis of new oil and gas leasing authorized by the 2006 Forest Plan, in 2004 BLM prepared a Reasonably Foreseeable Development Scenario ("2004 RFDS").³ The 2004 RFDS projected that 110 vertical wells would be developed in the Wayne National Forest's Marietta Unit and that hydraulic fracturing in the Wayne National Forest was not economically feasible at that time.⁴ The 2004 RFDS projected that 135 acres of surface disturbance would occur on federal surface overlying federal and private minerals.⁵ The 2006 FEIS's analysis of all impacts resulting from new oil and gas leasing in the Wayne National Forest was based on the 2004 RFDS's projections of total surface disturbance and new wells.⁶

The 2004 RFDS did not estimate surface disturbance from private surface activities within the administrative boundary of the Wayne National Forest, or on private surface adjacent to federal surface within the forest—e.g., the drilling of non-vertical wells, such as horizontal wells, or the development of supporting infrastructure. Private inholdings are scattered throughout the Wayne and make up 76% of the Marietta Unit.⁷ Ohio regulations governing oil and gas development on private lands are weaker than Forest Plan regulations governing federal surface in the Wayne.⁸

To comply with Section 7 of the ESA, the Forest Service prepared a Biological Assessment, issued on August 31, 2005, assessing, among other things, the 2006 Forest Plan's effects on the

¹ U.S. Forest Service, Wayne National Forest Final Environmental Impact Statement for the 2006 Land and Resource Management Plan (2006 Forest Plan) Record of Decision, 5 (Jan. 2006).

² U.S. Bureau of Land Management, Environmental Assessment for Oil and Gas Leasing, Wayne National Forest, Marietta Unit of the Athens Ranger District, Monroe, Noble, and Washington Counties, Ohio, DOI-BLM-Eastern States-0030-2016-0002-EA, 5 (October 2016) ("Final EA"). It is unclear whether BLM has actually adopted the 2006 Forest Plan.

³ 2006 FEIS, Appendix G – Oil and Gas Management.

⁴ *Id.*, at G-1, G-5.

⁵ *Id.*

⁶ Final Environmental Impact Statement for the Wayne National Forest 2006 Land and Resource Management Plan ("2006 FEIS") at 1-10, 3-262 to 3-263.

⁷ Final EA at 57.

⁸ *See, e.g.*, Center for Biological Diversity et al. Protest of the December 2016 Competitive Oil and Gas Lease Sale, Wayne National Forest (November 11, 2016), attached as Ex. A, 8 (comparing Forest Plan protections with state law and regulation, which do not provide the same protections); see also 2012 SIR Appendix B at 12 (noting operators' preference for drilling on private surface and "disdain for the additional paperwork and operating requirements associated with being on Forest Service surface and their unwillingness to wait for the necessary authorization to begin their projects").

Indiana bat, pink mucket pearly mussel, and fanshell.⁹ The Biological Assessment concluded that the 2006 Forest Plan, including new oil and gas leasing authorized thereunder, “may affect, is likely to affect the Indiana bat.”¹⁰ With respect to the pink mucket pearly mussel and fanshell, the Biological Assessment concluded that the 2006 Forest Plan would have “no effects” on the species and was “not likely to adversely affect” the species’ habitat.¹¹

On November 22, 2005 the FWS issued its Biological Opinion (“2005 Biological Opinion”) for the Forest Plan.¹² The 2005 Biological Opinion concluded that the 2006 Forest Plan, including new oil and gas leasing, was “not likely to jeopardize” the continued existence of the Indiana bat, or result in adverse modification of its critical habitat.¹³ FWS also concurred in the Forest Service’s determination that the 2006 Forest Plan was “not likely to adversely affect” the fanshell and pink pearly mussel.¹⁴ Neither the Biological Assessment nor the 2005 Biological Opinion accounted for impacts to these species from oil and gas activities on private surface.

Since 2005 several issues directly relevant to the Forest Plan and its impacts on listed species and critical habitat have arisen, including the significant rise in fracking and horizontal well development, increased scientific knowledge and environmental impacts from climate change, and the outbreak of white-nose syndrome—a bat disease that has killed over 6 million bats in eastern North America.¹⁵ Neither the 2005 Biological Opinion nor Biological Assessment addressed these issues.

In the winter of 2006/2007, white-nose syndrome was first detected at caves and mines in New York.¹⁶ In May 2008, the Forest Service prepared a Review of New Information (RONI) to determine whether the 2006 Forest Plan and FEIS should be updated in light of this new information.¹⁷ The 2008 RONI reviewed the potential for white-nose syndrome to spread to the Wayne National Forest but determined that the discovery of white-nose syndrome in the northeastern United States was not significant new information requiring supplementation of the 2006 FEIS.¹⁸

In 2011, bats infected with white-nose syndrome were discovered in Ohio in the Wayne National Forest for the first time.¹⁹ In May 2011, the Forest Supervisor for the Wayne National Forest

⁹ 2006 FEIS, Appendix F1 Biological Assessment (“Biological Assessment”).

¹⁰ *Id.* at F1-58.

¹¹ *Id.* at F1-123, F1-130.

¹² USFS, Biological Opinion on the Wayne National Forest Land and Resource Management Plan for the Federally-listed Endangered Indiana Bat (*Myotis sodalis*) and Running Buffalo Clover (*Trifolium soloniferum*) (“2005 Biological Opinion”).

¹³ 2005 Biological Opinion at 75.

¹⁴ *Id.* at 6-7.

¹⁵ See Ex. A at 28-29 for more explanation.

¹⁶ Ohio Dept. of Natural Resources, Division of Wildlife. Battle for Bats: Surviving White Nose Syndrome <http://wildlife.ohiodnr.gov/speciesandhabitats/fishandwildliferesearch/whitenosesyndrome>.

¹⁷ Wayne National Forest Review of New Information for White-Nose Syndrome and Bat Populations (May 2008).

¹⁸ *Id.*

¹⁹ Ohio Dept. of Natural Resources, Division of Wildlife. Battle for Bats: Surviving White Nose Syndrome <http://wildlife.ohiodnr.gov/speciesandhabitats/fishandwildliferesearch/whitenosesyndrome>.

issued a Review of the 2008 RONI for White-Nose Syndrome to determine whether this new information warranted supplementation of the 2006 FEIS.²⁰ This follow-up review determined that there was no need to update the 2006 FEIS.²¹ However, since 2011, Ohio has seen a steep decline in its bat populations.²² Bat populations in Ohio's two largest hibernacula (or overwintering sites) have declined by over 90%; summer bat detection rates have dropped by over 50%.²³ In addition, a 2013 study projects that climate change will result in a northeast-ward shift in the Indiana bat's population range-wide, reducing its overall range.²⁴ The temperature-sensitive bat's summer range in Ohio and other Midwestern states are likely to become unsuitably warm for the species.²⁵

In 2011, BLM proposed the sale of over 3,300 acres of oil and gas minerals in the Wayne nominated for leasing by oil and gas operators.²⁶ Increasing interest in the Utica shale and reports that large-scale, high-volume fracking and horizontal drilling could make exploitation of this shale play profitable led to "an outpouring of public concern" about the lease sale.²⁷

Among the public's many concerns were increased risks to water resources and fragmentation of the forest. Fracking—a dangerous practice in which operators inject millions of gallons of toxic fluid underground under extreme pressure to produce fractures that release oil and gas—can involve the transport of thousands of pounds of chemicals to a single well site and the production of millions of gallons of wastewater from a single well. This includes highly toxic frack fluid that returns to the surface after it is injected (known as "flowback") and brine water that discharges from the fractured formation (known as "produced water"). These wastewaters may be laced with naturally occurring radionuclides, heavy metals, and hydrocarbons that are carried to the surface from the underground formation.

Horizontal drilling—or drilling down and then sideways along the shale formation—enables economic extraction of thin layers of shale that are not profitable to extract via vertical drilling and hydraulic fracturing alone.²⁸ In the Utica and Marcellus shales, fracking occurs in multiple

²⁰ Letter from Forest Supervisor Jo Reyer to Wayne National Forest Leadership Team Review of 2008 RONI for White-Nose Syndrome (May 5, 2011).

²¹ *Id.*

²² Lyttle, E., Hikers spreading fungus that's killing Ohio bats, *The Columbus Dispatch* (June 15, 2016) ("Lyttle 2016"), available at <http://www.dispatch.com/content/stories/local/2015/06/15/humans-have-role-in-spread-of-bat-ills.html>.

²³ *Id.*; see also Ohio Dept. of Natural Resources, <http://wildlife.ohiodnr.gov/speciesandhabitats/fishandwildliferesearch/whitenosesyndrome> (data showing declines in bat detection).

²⁴ Loeb, Susan C. & Eric A. Winters, Indiana bat summer maternity distribution: effects of current and future climates, *Ecology and Evolution* 2013; 3(1):103–114, available at <http://onlinelibrary.wiley.com/doi/10.1002/ece3.440/abstract>

²⁵ *Id.*

²⁶ Supplemental Information Report Horizontal Drilling Using High Volume Hydraulic Fracturing Wayne National Forest (August 2012) ("2012 SIR") at 2.

²⁷ *Id.*

²⁸ CITI, Resurging North American Oil Production and the Death of the Peak Oil Hypothesis, 9 (Feb. 15, 2012); United States Energy Information Administration, Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays, 4 (Jul. 2011); Orszag, Peter, Fracking Boom Could Finally Cap Myth of Peak Oil (Jan. 31, 2011).

stages every 300 to 500 feet along a horizontal borehole that can be over two miles long;²⁹ a single frack job can therefore contaminate and pump into the ground several millions of gallons of fluid.³⁰ Moreover, given the high volumes of chemicals and water involved, and the high volumes of oil and gas produced, fracking requires larger-scale infrastructure—e.g., larger pipelines, tanks, and pits—to support these operations than conventional vertical drilling. These activities may also occur over two miles away from leased minerals given that horizontal drilling can occur over such large areas, and may not necessarily occur on federal surface in the highly fragmented private-federal patchwork of the Wayne.

Before the scheduled date of the lease sale, in response to the public's concerns, the Forest Service withdrew consent to new leasing and BLM canceled the lease sale, pending a review of the new information about fracking and "the effects analysis in the 2006 FEIS and associated planning documents."³¹ To inform its review, the Forest Service requested BLM to review the 2004 RFDS in light of the new potential for fracking and horizontal drilling activities not considered in the 2006 EIS.³²

In 2012, BLM reviewed the 2004 RFDS and determined that horizontal drilling was now economically viable within the Wayne National Forest, and that 10 horizontal well sites could potentially be developed in the Forest's Marietta Unit.³³ BLM found, however, that new surface disturbance and other impacts from these activities "is still well within the levels forecast in the 2006 RFDS," and concluded "the 2006 RFDS is still applicable and does not need to be revised."³⁴ BLM's review underestimated surface disturbance from horizontal well pads, new pipelines, and other infrastructure associated with large-scale fracking activities.³⁵ It also ignored the potential for these activities to be located on private surface.

The Forest Service prepared a Supplemental Information Report ("2012 SIR") based on BLM's updated oil and gas surface disturbance analysis to assess whether a supplemental NEPA review or update to the 2006 Forest Plan was warranted.³⁶ The 2012 SIR is not a NEPA document that was subject to public review and comment.³⁷ The report concluded that "[n]o additional analysis or protections are needed at the Forest Plan level" with respect to all Forest resources, including water and wildlife.³⁸ The 2012 SIR did not analyze the potential for increased private surface activities. It also assumed that the 2006 Forest Plan's requirements, which only govern federal

²⁹ New York Department of Environmental Conservation, Final Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program, 5-87 (2015).

³⁰ *Id.*; 2012 SIR at 4.

³¹ 2012 SIR at 2.

³² *Id.* at 3.

³³ 2012 SIR, Appendix C, Letter from BLM Field Manager Mark Storzer to Forest Supervisor Anne G. Carey, 1 (May 3, 2012).

³⁴ *Id.* at 3.

³⁵ See discussion in Section III(B)(1) below.

³⁶ 2012 SIR at 3.

³⁷ 2012 SIR at 6 ("The SIR itself is not a NEPA analysis or approval, nor is it a discrete or circumscribed agency action. It is interlocutory in nature and does not mark the consummation of a decision-making process or determine any legal rights. It simply is a review of available information, akin to a memorandum to the file, documenting assessment of the significance of new information.").

³⁸ See, e.g., 2012 SIR at 30, 35, 38, 41, 45, 47, 49-51, 56, and 58.

surface activities, would mitigate the effects of new leasing.³⁹ Moreover, the 2012 SIR failed to consider climate change effects on the forest or listed species.

In 2012, the Forest Service sent a letter to FWS that reviewed the information on horizontal drilling and hydraulic fracturing, and concluded that the effects of horizontal drilling and hydraulic fracturing activities on wildlife and botany resources do not differ from those addressed in the 2006 Forest Plan.⁴⁰ In response, on June 18, 2012 (“2012 FWS Letter”), FWS concluded that horizontal drilling and fracking activities are “consistent with the activities presented during the Forest planning process and associated with the existing [Biological Opinion] issued in 2005.”⁴¹ The FWS cited several standards and guidelines to dismiss concerns regarding impacts to water resources and wildlife from fracking. For example, the FWS assumed that the Forest Service’s approval requirements that apply to water withdrawal are sufficient to prevent excessive water removal, and that restrictions on storing wastewaters in open pits or retention ponds would apply to all fracking operations.⁴² However, these measures do not apply to private surface activities in the Wayne, even if associated drilling would access federal minerals.⁴³ FWS concluded that reinitiation of formal consultation was not required.⁴⁴

In 2012 the FWS listed the sheepnose mussel and snuffbox mussel as endangered species under the ESA.⁴⁵ Sheepnose and snuffbox may be present on waterways within the Wayne and were not addressed in the 2005 Biological Opinion. Regardless, FWS agreed with the Forest Service that the 2006 Forest Plan, including new leasing authorized thereunder, would have “no effect” on these species.⁴⁶ The Northern long-eared bat was listed as “threatened” in 2015 due to severe population declines resulting from white-nose syndrome.⁴⁷

In 2015, BLM began preparing a programmatic Environmental Assessment (“EA”) for oil and gas leasing in the Marietta Unit. By that time, approximately 18,000 acres in the Wayne’s Marietta Unit—or nearly half of all the Marietta Unit’s acreage in federal minerals—had been nominated by oil and gas operators for leasing. During the scoping period on the EA, proponents of federal leasing urged that new federal leasing in the Wayne was necessary to “provide private landowners the opportunity to develop their minerals,” while “withholding leasing the federal minerals will pose an obstacle to development of private minerals.”⁴⁸ This is because private mineral owners would not be able to profitably develop their shale resources in the Wayne without the ability to “pool” and horizontally drill through large contiguous areas of shale resources, including federal minerals scattered throughout the forest.⁴⁹

³⁹ See, e.g., 2012 SIR at 47.

⁴⁰ Letter from U.S. Fish and Wildlife Service Field Supervisor Mary Knapp to Forest Supervisor Anne Carey re incorporation of horizontal drilling and hydraulic fracturing under oil and gas activities in the Forest Plan, Wayne National Forest (June 18, 2012).

⁴¹ Id. at 2.

⁴² Id.

⁴³ See fns. 90-92, below & accompanying text.

⁴⁴ 2012 FWS Letter at 2.

⁴⁵ 77 Fed. Reg. 49 (Mar. 13, 2012); 77 Fed. Reg. 30 (Feb. 14, 2012).

⁴⁶ 2012 SIR at 58.

⁴⁷ 80 Fed. Reg. 17,973 (Apr. 27, 2015).

⁴⁸ Final EA at 21.

⁴⁹ See Ex. D at 4-5 for further explanation.

BLM released the draft programmatic EA (“Draft EA”) for public comment on April 28, 2016.⁵⁰ The Draft EA discussed the general leasing of the entire federal mineral estate underlying National Forest System lands “within the proclamation boundary of the Wayne National Forest (WNF), Athens Ranger District, Marietta Unit,” approximately 40,000 acres of federal mineral estate.⁵¹ The Draft EA referred to the 2012 SIR and 2006 FEIS for its analysis of the effects of leasing.⁵²

The Environmental Groups commented on the Draft EA, raising concerns that the EA failed to consider, among other things: (1) the impacts of fracking on various resources, including increased surface disturbance associated with Marcellus and Utica shale drilling and oil and gas infrastructure; (2) the potential for new leasing to open up private minerals and related private surface development; (3) impacts from private land development, including increased surface disturbance, water pollution, water depletion, and wastewater pits (allowed under Ohio law) and mitigation for these impacts; (4) habitat fragmentation and habitat degradation effects of fracking and private surface activities on the Indiana bat and listed mussels; and (5) in connection with these effects, the impacts of white-nose syndrome and climate change on the Indiana bat.

In response to these concerns, in the Final EA the BLM admitted the potential for new leasing to result in private surface activities,⁵³ but still failed to analyze or quantify total private surface disturbance and associated impacts, or to adequately analyze mitigation for these impacts. BLM dismissed all other concerns raised by the Environmental Groups. On October 14, 2016, BLM signed a Finding of No Significant Impact (“FONSI”), which found that, based on the analysis in the Final EA, the action of leasing federal mineral estate within the Marietta Unit “is not a major Federal action” and “will not significantly affect the quality of the human environment.”⁵⁴ The Forest Service did not adopt the Final EA or FONSI. Indeed, the Forest Service has never performed an environmental review of the impacts of fracking, including private surface activities, in a NEPA document subject to public review and comment.

On October 17, 2016, BLM posted an oil and gas lease sale notice for 33 parcels, 1,600.69 acres, in the Wayne National Forest, scheduled to take place on December 13, 2016. Sixteen of those parcels were later deferred from the auction for technical reasons.

On November 11, 2016, the Environmental Groups filed a formal protest against the December 13, 2016 sale.⁵⁵ BLM denied and dismissed the protest, and issued its Decision Record on December 12, 2016.⁵⁶ The sale took place on December 13, 2016. All 17 parcels were sold.⁵⁷

⁵⁰ U.S. BLM, Draft Environmental Assessment, NEPA #: DOI-BLM-Eastern States-0030-2016-0002-EA, Oil and Gas Leasing, Wayne National Forest, Marietta Unit of the Athens Ranger District, Monroe, Noble, and Washington Counties, Ohio (April 2016) (“Draft EA”).

⁵¹ Draft EA at 13.

⁵² Draft EA at 4.

⁵³ Final EA at 21.

⁵⁴ U.S. BLM, Finding of No Significant Impact for the Programmatic EA (October 2016).

⁵⁵ See Ex. A.

⁵⁶ U.S. BLM, Decision re Center for Biological Diversity et al. Protest of All Parcels in the December 13, 2016 Competitive Oil and Gas Lease Sale (December 12, 2016).

Neither BLM nor the Forest Service ever consulted the FWS over the December 2016 lease sale's effects on the listed species in the action area, or reinitiated consultation with FWS over the 2006 Forest Plan, despite the Environmental Groups' concerns and new information regarding white nose-syndrome and associated bat population declines, climate change, fracking, and the potential for private land disturbance.

II. Legal Background

A. The Duty to Ensure Against Jeopardy and Adverse Modification of Critical Habitat Under Section 7 of the ESA

Congress enacted the ESA in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants and their natural habitats. 16 U.S.C. §§ 1531, 1532. The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats. See id. §§ 1536(a)(1), (a)(2) and (a)(4) and § 1538(a); 50 C.F.R. § 402.

Under Section 7 of the ESA, federal agencies must “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 or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical.” 16 U.S.C. § 1536(a)(2).

The definition of agency “action” is broad and includes “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies,” including programmatic actions. 50 C.F.R. § 402.02. Likewise, the “action area” includes “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” Id.

The duties in ESA Section 7 are only fulfilled by an agency's satisfaction of the consultation requirements that are set forth in the implementing regulations for Section 7 of the ESA, and only after the agency lawfully complies with these requirements may an action that “may affect” a protected species go forward. Pac. Rivers Council v. Thomas, 30 F.3d 1050, 1055-57 (9th Cir. 1994).

The action agency must initially prepare a biological assessment to “evaluate the potential effects of the proposed action” on listed species. 50 C.F.R. § 402.12. If the action agency concludes that the proposed action is “not likely to adversely affect” a listed species that occurs in the action area, the Service must concur in writing with this determination. Id. §§ 402.13(a) and 402.14(b). If the Service concurs in this determination, then formal consultation is not required. Id. § 402.13(a). If the Service's concurrence in a “not likely to adversely affect” finding is inconsistent with the best available data, however, any such concurrence must be set aside. Id. § 402.14(g)(8); 5 U.S.C. § 706(2).

If the action agency concludes that an action is “likely to adversely affect” listed species or critical habitat, it must enter into “formal consultation” with the Service. 50 C.F.R. §§ 402.12(k),

⁵⁷ U.S. BLM, *Parcels Sold: Results of the Competitive Oil and Gas Lease Sale for December 13, 2016*.

402.14(a). The threshold for triggering the formal consultation requirement is “very low”; indeed, “any possible effect ... triggers formal consultation requirements.”⁵⁸

Formal consultation commences with the action agency’s written request for consultation and concludes with the Service’s issuance of a “biological opinion.” 50 C.F.R. § 402.02. The biological opinion states the Service’s opinion as to whether the effects of the action are “likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.”⁵⁹ Id. § 402.14(g)(4). When conducting formal consultation, the Service and the action agency must evaluate the “effects of the action,” including all direct and indirect effects of the proposed action, plus the effects of actions that are interrelated or interdependent, added to all existing environmental conditions – that is, the “environmental baseline.” Id. §§ 402.14 and 402.02. The environmental baseline includes the past and present impacts of all Federal, state, and private actions and other human activities in the action area....” Id. The effects of the action must be considered together with “cumulative effects,” which are “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” Id.

If the Service concludes in a biological opinion that jeopardy is likely to occur, it must prescribe “reasonable and prudent alternatives” to avoid jeopardy. Id. § 402.14(h)(3). If the Service concludes that a project is not likely to jeopardize listed species, it must nevertheless provide an incidental take statement with the biological opinion, specifying the amount or extent of take that is incidental to the action (but which would otherwise be prohibited under Section 9 of the ESA), “reasonable and prudent measures” necessary or appropriate to minimize such take, and the “terms and conditions” that must be complied with by the action agency to implement any reasonable and prudent measures. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

The ESA requires federal agencies to use the best scientific and commercial data available when consulting about whether federal actions may jeopardize listed species or adversely modify critical habitat. 16 U.S.C. § 1536(a)(2). Accordingly, an action agency must “provide the Service with the best scientific and commercial data available or which can be obtained during the consultation for an adequate review of the effects that an action may have upon listed species of critical habitat.” 50 C.F.R. § 402.14(d). Likewise, “[i]n formulating its biological opinion...the Service will use the best scientific and commercial data available.” Id. § 402.14(g)(8). However, if the action agency failed “to discuss information that would undercut the opinion’s conclusions,” the biological opinion is legally flawed, and the incidental take statement will not insulate the agency from ESA Section 9 liability. See Ctr. for Biological Diversity v. BLM, 698 F.3d 1101, 1127-28 (9th Cir. 2012).

⁵⁸ See Interagency Cooperation Under the Endangered Species Act, 51 Fed. Reg. 19,926 (June 3 1996).

⁵⁹ 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.” Id. § 402.02.

After the issuance of a biological opinion and “where discretionary Federal involvement or control over the action has been retained or is authorized by law,” the agency must reinitiate consultation if:

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

50 C.F.R. § 402.16.

Section 7(d) of the ESA provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.” 16 U.S.C. § 1536(d). The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to listed species or adverse modification of critical habitat.

III. Notice of Violations

A. The Forest Service and BLM Failed to Consult with FWS and Insure Against Jeopardy and Destruction or Adverse Modification of Critical Habitat, in Violation of ESA Section 7

BLM’s oil and gas leasing proposal for the Wayne National Forest and the Forest Service’s consent to new leasing are both agency actions under the ESA, for which Section 7 consultation was required, but neither agency consulted with FWS over the December 2016 lease sale.

“Action” is broadly defined under the ESA to include all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies, including the granting of leases, and actions that will directly or indirectly cause modifications to the land, water, or air. 50 C.F.R. § 402.02. BLM and the Forest Service, however, failed to request from FWS whether any listed or proposed species may be present in the action area. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12.

Moreover, there are listed species in the action area, and thus BLM and the Forest Service further violated the ESA by failing to prepare a biological assessment. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. As BLM admits in the Final EA, the Indiana bat is “well-documented on all units” of

the Wayne National Forest, the Marietta Unit “contains ample suitable foraging and roosting habitat” for the northern long-eared bat, and sheepnose and snuffbox mussels “may be present on waterways within the [Wayne National Forest].”⁶⁰ Additionally, the fanshell is found immediately downstream of the Marietta Unit, and the pink mucket has been found in the Belleville, Racine, Gallipolis, and Greenup pools of the Ohio River and potentially still exists in the lower Muskingum River in the Belleville and Racine pools of the Ohio River in Wood County, West Virginia and in the lower Muskingum River.⁶¹ Host fish for the fanshell and pink mucket pearly mussel are also found within the Marietta Unit of the Wayne National Forest, and could travel downstream and play a role in the life cycle of downstream mussels in the Ohio River.⁶²

Because the December 2016 Lease Sale and any resulting oil and gas development “may affect” the threatened and endangered species in the action area, and downstream from the action area, BLM and the Forest Service were required to consult with FWS over these effects. As stated in the Final EA, the Forest Service has already determined that “oil and gas activities are likely to adversely affect Indiana bat,” and “tree removal may result in impacts to individual northern long-eared bats.”⁶³ Additionally, the water depletions, increased surface disturbance, and toxic spills from hydraulic fracturing and horizontal drilling throughout the Marietta Unit may affect the sheepnose and snuffbox mussels, as well as fanshell and pink mucket pearly mussels and their host fish found downstream from the proposed areas for lease. The 2012 SIR acknowledges that the fanshell and pink mucket pearly mussel are threatened by reduced water flows, runoff from oil and gas exploration, and toxic spills.⁶⁴ BLM and the Forest Service violated the ESA by failing to consult with FWS concerning the impacts of new oil and gas leasing proposal on these listed species. 16 U.S.C. § 1536(a)(2). And because BLM and the Forest Service have failed to comply with the Section 7 consultation procedures, the agencies cannot insure that the proposed oil and gas leasing will not jeopardize any listed species, or destroy or adversely modify any critical habitat, in further violation of Section 7 of the ESA. Id.

BLM asserts in the Final EA that it can wait to engage in ESA consultation with FWS until it receives an application for a permit to drill.⁶⁵ This position, however, violates the ESA and has been rejected by the courts. For instance, in Conner v. Burford, the Forest Service issued oil and gas leases on national forests in Montana, without preparing an EIS, and without consulting on all phases of the oil and gas leases. 848 F.2d 1441 (9th Cir. 1988). The United States Court of Appeals for the Ninth Circuit held that the sale of a non-NSO (or “no surface occupancy”) oil and gas lease constitutes an irreversible commitment of resources. Id. at 1451. For BLM’s oil and gas leasing proposal on the Wayne National Forest, NSO leases are proposed for only a small portion of the overall lease sale, with non-NSO leases proposed for the majority of the national forest.⁶⁶

⁶⁰ Final EA at 48-49.

⁶¹ 2006 FEIS, Appendix F1, Biological Assessment at F1-112, F1-126 – F1-127.

⁶² Id. at F1-116, F1-122, F1-129.

⁶³ Final EA at 99-100.

⁶⁴ 2012 SIR at 49.

⁶⁵ Final EA at 20.

⁶⁶ Id. at 43.

The federal agency defendants in Conner v. Burford did not even dispute that the agencies were required to consult under Section 7 of the ESA, and that FWS was required to prepare a biological opinion, before any of the leases could be sold. Conner, 848 F.2d at 1453. The Ninth Circuit further held that FWS was required to consider all phases of the oil and gas leases within the biological opinion, including all post-leasing activities. Id. “Therefore the FWS was required to prepare, at the leasing stage, a comprehensive biological opinion assessing whether or not the agency action was likely to jeopardize the continued existence of protected species.” Id.

In the EA, BLM relies extensively on the 2005 Biological Opinion prepared by FWS for the 2006 Forest Plan for the Wayne National Forest.⁶⁷ BLM acknowledges, however, that this 2005 Biological Opinion is programmatic and “non-site-specific.”⁶⁸ This 2005 Biological Opinion for the Forest Plan does not excuse BLM’s and the Forest Service’s obligation under the ESA to consult with FWS regarding the December 2016 lease sale. See Conner, 848 F.2d at 1453.

BLM’s and the Forest Service’s failure to consult with FWS on the December 2016 lease sale for the Wayne National Forest plainly violates Section 7 of the ESA. 16 U.S.C. 1536(a)(2).

B. BLM’s and the Forest Service’s Reliance on the 2005 Forest Plan Biological Opinion and Failure to Reinitiate Consultation Violates ESA Section 7 and the APA

To the extent that BLM and the Forest Service rely on the 2005 Biological Opinion for compliance with their Section 7 duties, that reliance is also misplaced because it is out of date. Agencies are required to reinitiate ESA consultation if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, or a new species is listed or critical habitat designated that may be affected by the identified action. 50 C.F.R. § 402.16. Despite extensive new information, and newly listed species, the Forest Service and FWS have failed to reinitiate consultation on the 2005 Biological Opinion.

The 2005 Biological Opinion for the 2006 Forest Plan does not address three issues where there has been significant new information over the past decade that are directly relevant to the Forest Plan and its impacts on listed species and critical habitat: new drilling techniques, white-nose syndrome, and climate change. This failure to reinitiate consultation on the 2005 Biological Opinion to address significant new information that has arisen over the last decade violates the ESA. 50 C.F.R. § 402.16. In addition, the misplaced reliance on the 2005 Biological Opinion violates Section 7 of the ESA, 16 U.S.C. § 1536(a)(2).

1. New Information Concerning Horizontal Well Development

The 2005 Biological Opinion for the Forest Plan is woefully outdated, failing to address the grave impacts of hydraulic fracturing and horizontal drilling on the Indiana bat, fanshell, pink mucket pearly mussel, snuffbox mussel, and sheepnose mussel. In the EIS for the 2006 Forest

⁶⁷ Id. at 19.

⁶⁸ Id.

Plan, the Forest Service only analyzed the effects of vertical well development on the federal surface, and did not take into account fracking or horizontal wells. FWS's 2012 Letter determination that reinitiation of consultation was unnecessary in light of new information about fracking is also flawed. BLM and the Forest Service's 2012 analyses of fracking and horizontal drilling, on which this determination was based, underestimated the surface disturbance impacts of fracking, ignored the potential for disturbance of private surface, and failed to take into account numerous studies regarding effects of fracking on water and wildlife. The recent, significant rise in fracking and horizontal drilling and recent data regarding surface disturbance from horizontal well pads, new pipelines, and other infrastructure associated with large-scale fracking activities, plus a host of other fracking effects on wildlife and the water resources they depend on, constitutes new information revealing effects of the action that may affect listed species in a manner or to an extent not previously considered. This triggers the duty of the BLM, Forest Service, and FWS to reinitiate consultation on the 2005 Biological Opinion. 50 C.F.R. § 402.16(b).

For example, many of the lease parcels are near the Ohio River and its tributaries, which will be at risk of contamination from increased transport of fracking chemicals and wastewater via trucks and pipelines, and runoff pollution from new roads and well pads.⁶⁹ The threat of harm to water and wildlife is not hypothetical. For example, in June 2014, the Eisenbarth well pad located in Monroe County, close to the proclamation boundary of the Marietta Unit, experienced a fire followed by more than 30 explosions, which sent shrapnel flying around the well pad.⁷⁰ The well was owned by Norwegian driller Statoil and was being fracked by Halliburton. Given the risk of catastrophic chain reaction explosions if the wells themselves caught fire, local authorities evacuated 25 families living within a mile radius of the well site.⁷¹ "As a result of fire-fighting efforts and flow back [sic] from the well head, significant quantities of water and unknown quantities of products on the well pad left the Site and entered an unnamed tributary of Opossum Creek that ultimately discharges to the Ohio River."⁷² One report estimated "54,000 gallons of 16 hazardous fracking chemicals were lost from the pad, along with 300,000 gallons of water and foam used to control the blaze."⁷³ Everything washed down into a tributary of the Ohio River; the runoff killed approximately 70,000 fish in a 5-mile long fish kill.⁷⁴ Opossum Creek, the location of the Eisenbarth fish kill, is partially located within the proclamation boundary of the Marietta Unit.

⁶⁹ See Map of Auctioned Parcels, attached hereto as Ex. B.

⁷⁰ Rutz, N., et al. Ohio Citizen Action Education Fund: The Eisenbarth well fire: Ohio fails in a fracking emergency (October 2014), available at <http://www.theoec.org/sites/default/files/OhioCitizenAction.Eisenbarth%20Report.pdf>.

⁷¹ Id.

⁷² See, e.g., U.S. Environmental Protection Agency Pollution/Situation Report, Statoil Eisenbarth Well Response, POLREP #1, available at <http://www.theoec.org/sites/default/files/Eisenbarth%20well%20pad%20fire.pdf>; Junkins, Casey, EPA: 70K Fish, Aquatic Life Killed, Wheeling Intelligencer, July 22, 2014, available at <http://www.theintelligencer.net/page/content.detail/id/607167.html>; Ohio Environmental Protection Agency, Directors Final Findings & Orders NPDES In the Matter of Statoil USA Onshore Properties, Inc. (November 6, 2015).

⁷³ Rutz, N., et al. Ohio Citizen Action Education Fund: The Eisenbarth well fire: Ohio fails in a fracking emergency (October 2014), available at <http://www.theoec.org/sites/default/files/OhioCitizenAction.Eisenbarth%20Report.pdf>.

⁷⁴ Id.

Another incident earlier that year, in May 2014, involved a 100 barrel spill of drilling mud into an unnamed creek near Beverly, Ohio “heavily” contaminating the areas with the drilling mud, crude oil, and condensate.⁷⁵ The unnamed creek flows into Cow Run Creek, which leads to Olive Creek, which then meets with the Muskingum River a tributary of the Ohio River.⁷⁶ In addition to the drilling mud, an unknown amount of wet gas was also released, causing an explosive atmosphere leading to dangerous working conditions and the evacuation of seven residents from three homes adjacent to the site.⁷⁷ The spill was a result of a mechanical failure of a well head during a horizontal drilling operation intended for hydraulic fracturing in the Utica Shale formation to extract wet gas.⁷⁸ As a result of the well head failure, drilling fluid discharged out of the well boring and onto the well pad, into storm-water control drainage ditches, and eventually into the unnamed creek.

More recently, in March 2016, a truck hauling drilling wastewater overturned in eastern Ohio, sending thousands of gallons of toxic water into a nearby creek and contaminating a drinking water reservoir in Barnesville in Belmont County.⁷⁹ The wastewater came from a well in Monroe County, where almost all the auctioned lease parcels are located, and the spill occurred close to the Wayne’s Marietta Unit.⁸⁰

More detailed information on potential impacts to water resources and wildlife from fracking, not considered in the 2005 Biological Opinion or 2012 FWS Letter, is provided in the letter to BLM, regarding the Draft Environmental Assessment for Oil and Gas Leasing on Wayne National Forest, attached hereto as Exhibit C, on pp. 8-12, 21-35, and 55-63.⁸¹

This increased risk of water contamination may harm listed mussels (and their host fish) and the Indiana bat. Moreover, habitat destruction and fragmentation from new surface disturbance poses increased risks to the Indiana bat. BLM, however, severely underestimated surface disturbance from new fracking activities in its 2012 review of the 2004 RFDS for the Wayne, underlying FWS’s 2012 determination not to re-consult. This data and new information is extensively detailed in the attached letter to the Forest Service, attached hereto as Exhibit D, on pp. 3-9 (discussing empirical data on surface disturbance).

The likelihood that new federal leasing will open up private minerals for development and entail the development of horizontal well pads on private surface also triggers reinitiation. Opening up private minerals and overlying private lands to new shale gas development is an obvious and necessary consequence of federal leasing in the Wayne National Forest. As leasing proponents

⁷⁵ USEPA, POLREP #1, PDC Energy Oil Spill (May 4, 2014).

⁷⁶ Id.

⁷⁷ Id.

⁷⁸ Id.

⁷⁹ Arenschiold, Laura, “Truck overturns, spills drilling wastewater that taints reservoir” Columbia Dispatch (March 9, 2016) (“About 5,000 gallons of drilling wastewater spilled into a field, then a creek and finally into one of Barnesville’s three reservoirs[;] [...] the truck was hauling waste from a well in Monroe County[.]”) (“Arenschiold 2016”).

⁸⁰ See Arenschiold 2016.

⁸¹ See also USEPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (2016) (finding water contamination has resulted from fracking).

have insisted, private mineral deposits, which are scattered throughout the Wayne, are exploitable only if BLM and the Forest Service make available adjacent federal minerals.⁸² Likewise, many of the parcels offered for lease are too small to be exploited via costly horizontal drilling techniques unless they are “pooled” with adjacent private minerals.⁸³ Further, to avoid the Forest Service’s costlier and stricter regulations and lengthier approval process, operators are likely to choose to site horizontal drilling operations on private surface, which could have significant impacts on the national forest, even if conducted on private lands.⁸⁴

The 2005 Biological Opinion and 2012 FWS Letter, however, never accounted for the impacts of private mineral and private surface development that would very likely result from opening up the parcels in the Wayne National Forest for oil and gas leasing. Indeed, the 2006 Forest Plan FEIS did not take into account private surface disturbance, nor did the 2004 RFDS include any projections of disturbance on private lands.⁸⁵ The 2005 Biological Opinion and 2012 FWS Letter thus wrongly assume that measures specified in the 2006 Forest Plan would mitigate all of the potential effects from new leasing, despite the Forest Plan limiting its regulatory reach to federal surface activities.⁸⁶

For example, wastewater pits from fracking operations could pose a serious threat to the Indiana bat: insects that become trapped on the surface of these pits attract bats, which may then become exposed to toxic chemicals or entangled in netting covering the pit’s surface.⁸⁷ While the Forest Plan requires “closed systems” for storing wastewater instead of wastewater pits and prohibits netting,⁸⁸ wastewater ponds and netting are allowed under Ohio law, *see* OAC § 1501:9-3-08, ORC 1509.22(C)(4). Federal leasing could therefore lead to these hazards for bats on private lands.⁸⁹

⁸² Downing, B. Strong support in southern Ohio for Wayne NF drilling, Akron Beacon Journal, Ohio.com. (Jan. 22, 2016), available at <http://www.ohio.com/blogs/drilling/ohio-utica-shale-1.291290/strong-support-in-southern-ohio-for-wayne-nf-drilling-1.656368> (accessed November 4, 2016); Chenetski, Hannah. Washington Co. Commissioners support drilling in Wayne National Forest, The News Center (May 26, 2016), available at <http://www.thenewscenter.tv/content/news/Washington-Co-Commissioners-support-drilling-in-Wayne-National-Forest-381011331.html> (accessed November 4, 2016).

⁸³ *See* Ex. D at 4-5.

⁸⁴ *See* Ex. D at 5.

⁸⁵ *See, e.g.*, 2006 FEIS at 3-262 (RFDS for Oil and Gas indicates that BLM only analyzed surface disturbance likely to occur on Federal surface over the next 10 years); *see also* 2006 FEIS Appendix G 2004 RFDS at G-1.

⁸⁶ *Compare, e.g.*, Letter from FWS Field Supervisor Mary Knapp to Forest Supervisor Anne Carey re Incorporation of horizontal drilling and hydraulic fracturing under oil and gas activities in the Forest Plan, Wayne National Forest, 2 (June 18, 2012) (noting 2006 Forest Plan protections) *with* 2006 FEIS at 3-115 (“Management of non-Federal lands are under the discretion of the landowner and conservation measures applied on NFS lands may not be used on these other ownerships.”).

⁸⁷ *See* Ramirez, Pedro, U.S. Fish and Wildlife Service, Reserve Pit Management: Risks to Migratory Birds, 9 (Sept. 2009), available at <https://www.fws.gov/migratorybirds/pdf/management/reservepitmanagementriskstomigbirds.pdf> (noting bats can be attracted to wastewater pits) (“Ramirez 2009”); 2012 SIR at 45, 47 (“netting could cause entanglement and thus could be lethal”).

⁸⁸ 2012 SIR at 47.

⁸⁹ Ramirez 2009; *see also* Ohio Department of Natural Resources, Wastewater (Flowback) from Hydraulic Fracturing, available at <https://oilandgas.ohiodnr.gov/portals/oilgas/pdf/Wastewater-flowback.pdf> (noting wastewater can be stored in pits).

In addition, the 2006 Forest Plan restricts water depletions that would “adversely affect stream processes, aquatic and riparian habitats and communities, or recreation and aesthetic values.”⁹⁰ Purportedly, this restriction would mitigate the tremendous water depletion impacts of fracking—over 64 million gallons for a single horizontal well pad (up to eight million gallons per well and up to 8 wells per well pad).⁹¹ But this restriction would not apply to depletions on private surface or outside the Wayne. Because “[t]here is no agency (federal or state) that regulates water withdrawals from streams and rivers in the State of Ohio,” the only limits on an operator’s ability to withdraw water from private surface would be the private landowner’s consent.⁹² FWS’s 2012 Letter concluding that new information regarding fracking does not trigger reinitiation, however, erroneously assumes that existing regulations would limit water withdrawals.

The effects of new federal oil and gas leasing must be evaluated “together” with these “interdependent” private surface activities in a reinitiated consultation, regardless of whether BLM or the Forest Service directly authorizes the private surface activities. 50 C.F.R. §§ 402.02, 402.16; *Sierra Club v. U.S. DOE*, 255 F. Supp. 2d 1177, 1188 (D. Col. 2002) (agency that granted easement to mine required to analyze mine’s impacts on listed species, even though another agency authorized mine). While the number of new horizontal well pads on private surface that federal leasing could lead to has never been analyzed, significant habitat loss (e.g., fragmentation of maternal summer roost areas) that is not accounted for in the 2005 Biological Opinion and hazardous conditions further endangering listed species could result from these activities. Moreover, weaker state regulations, such as those permitting wastewater ponds, would govern these private activities.

The same holds true for effects of horizontal drilling on federal surface overlying private minerals (which could also be opened up with new federal leasing)—in these split estate situations, the Forest Service can only request operators to voluntarily comply with Standards and Guidelines set forth in the Forest Plan. Indeed, if well development on private and federal surface were proportionate to the Marietta Unit’s private and federal surface acreages, a significant portion of wells within the Forest (75%) would escape mandatory federal controls. The resulting take could be cumulatively significant and lead to forest-wide, population-level effects on the Indiana bat and listed mussels.

BLM’s implicit determination in the Final EA that existing regulatory mechanisms will reduce or avoid effects on the Indiana bat and other listed species from private surface and mineral development activities is not a proper basis for failing to consult with FWS regarding these impacts. Because it is clear that private surface and mineral development adjacent to federal surface in the WNF “may” affect listed species—issues that have never been considered in a prior Section 7 consultation—BLM and the Forest Service must reinitiate consultation with FWS on the 2005 Biological Opinion to insure that oil and gas leasing does not jeopardize the Indiana bat or others species before these leases can proceed. 50 C.F.R. § 402.16.

⁹⁰ 2012 SIR at 41.

⁹¹ Final EA at 105; 2012 SIR at 4; *see also, id.*, at 29-30 (similar reasoning with respect to groundwater).

⁹² *See, id.*, at 29.

2. White-Nose Syndrome

White-nose syndrome (or “WNS”) is a fatal disease affecting hibernating bats that is named for a white fungus that appears on the muzzle and other parts of bats. The disease has spread rapidly across the eastern and Midwestern United States, and is estimated to have killed more than 6 million bats in the Northeast and Canada.⁹³ Bats with white-nose syndrome “act strangely during cold winter months, including flying outside during the day and clustering near the entrances of caves and other hibernation areas.”⁹⁴ These abnormal behaviors “may contribute to the untimely consumption of stored fat reserves causing emaciation, a characteristic documented in a portion of the bats that die from WNS.”⁹⁵ Given the severe toll white-nose syndrome has taken on the Indiana bat and the risk of region-wide extirpation from this disease, oil and gas development in the Wayne poses a greater threat to the species than previously considered.

White nose syndrome was first detected in Ohio in the Wayne National Forest in Lawrence County in 2011.⁹⁶ Since then, bat populations across Ohio have crashed.

In a February 19, 2015 letter initiating formal conferencing for the northern long-eared bat, the Forest Service cited data showing the rapid declines of the bats likely from white-nose syndrome:

In Ohio, hibernaculum surveys from pre-2011 (before WNS) to 2014 (post-WNS) suggest an 85% decline in the winter bat population (Norris 2014). A 2014 mid-winter bat census at the Lawrence County mine indicated the collapse (99% decline) of the hibernating bat population. Statewide summer acoustic surveys in Ohio indicate a declining trend in the number of overall bat detections (all species) recorded. For instance, a comparison of the number of calls detected in 2014 to 2011 suggests 47% fewer bats detected overall (Norris 2014). Preliminary bat capture data collected on the WNF during the summer of 2014 suggest relative declines in several previously common species that are now WNS-affected, including little brown bats and NLEBs. The averaged pre-WNS (1997-2008) bat capture rate for all species (6.6 bats per net-night) declined by 75% to 1.64 bats per net-night in 2014 (post-WNS). While there is evidence that there may be some persistence of WNS -affected bats on the landscape in the longest affected areas of the northeastern USA (unpublished data, 7th Annual White-Nose

⁹³ USFWS, White-nose syndrome: The devastating disease of hibernating bats in North America (May 2016), available at https://www.whitenosesyndrome.org/sites/default/files/resource/white-nose_fact_sheet_5-2016_2.pdf.

⁹⁴ *Id.*

⁹⁵ USGS, National Wildlife Health Center, White-Nose Syndrome, available at http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/.

⁹⁶ USFS, White-nose Syndrome Detected in Ohio (Mar. 30, 2011), available at http://www.fs.usda.gov/wps/portal/fsinternet!/ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gjAwhwtDDw9_AI8zPyhQoY6BdkOyoCAGixyPg!/?ss=110914&navtype=BROWSEBYSUBJECT&cid=STELPRDB5288711&navid=1800000000000000&pnavid=null&position=News&tttype=detail&pname=Wayne%20National%20Forest-%20News%20&%20Events; see also Ohio Dept. of Natural Resources, White-noseSyndrome.org, available at <https://www.whitenosesyndrome.org/partner/ohio-department-natural-resources>; White-nose Syndrome.org, Updated white-nose syndrome map (May 10, 2016), available at <https://www.whitenosesyndrome.org/resource/updated-white-nose-syndrome-map-may-10-2016>.

Syndrome Workshop, 8-12 Sept 2014, St. Louis, MO), and bats can and do survive and heal from the disease (Fuller et al. 2011), long-term survivorship is difficult to predict due to the newness of the disease.⁹⁷

Since these 2015 findings, the impacts of white-nose syndrome have worsened. As of 2016, white-nose syndrome has spread to 19 counties in Ohio,⁹⁸ but according to Ohio state officials, the disease is probably much more widespread. Since the outbreak of white-nose syndrome in Ohio in 2011, researchers have now recorded a 90 percent decline in hibernating bat populations at the state's two largest hibernacula — a closed limestone mine in Preble County near the Indiana border west of Dayton, where nearly 40,000 bats had once been observed, and the Lawrence County mine.⁹⁹ Bat-detection rates in the summer have fallen by more than 50 percent since 2011.¹⁰⁰

Neither the 2005 Biological Opinion, the Forest Service's 2008 RONI, nor the 2011 Review of the 2008 RONI take into account these steep declines in bat populations caused by white-nose syndrome.

A 2013 study determined that white-nose syndrome threatens the Indiana bat with a high risk of extirpation throughout large parts of its range.¹⁰¹ The study noted the need to reduce other threats to the Indiana bat to maximize the species' chances of survival:

Our sensitivity analyses indicated that management actions devoted to increasing, in order, winter, summer, and fall survival of breeding adult females would have the greatest potential for mitigating impacts of WNS on Indiana bat populations. Management actions for improving survival, however, may be difficult to achieve because these parameters are quite high (95% seasonal survival) in the absence of WNS. Alternatively, increasing reproduction, while less efficient at addressing a declining population trajectory, has more room for improvement; further, if management actions on the breeding grounds to improve reproduction also improve adult female summer survival, our global sensitivity analyses suggest improved performance in the other parameters may occur as well. *Because of the heightened risk faced by small, range-restricted populations* (Terborgh and Winter, 1980; Gilpin and Soulé, 1986; Schoener and Spiller, 1987), *it is also prudent in the face of this potential extinction agent to limit additive sources of*

⁹⁷ USFS, Wayne National Forest Supervisor's Office Letter to Dan Everson U.S. Fish and Wildlife Service initiating formal conferencing for the northern long-eared bat (February 19, 2015).

⁹⁸ Lyttle, E., Hikers spreading fungus that's killing Ohio bats, The Columbus Dispatch (June 15, 2016) ("Lyttle 2016"), available at <http://www.dispatch.com/content/stories/local/2015/06/15/humans-have-role-in-spread-of-bat-ills.html>.

⁹⁹ Lyttle 2016.

¹⁰⁰ *Id.*; see also Ohio Dept. of Natural Resources, <http://wildlife.ohiodnr.gov/speciesandhabitats/fishandwildliferesearch/whitenosesyndrome> (data showing declines in bat detection).

¹⁰¹ Thogmartin, Wayne E. et al., White-nose syndrome is likely to extirpate the endangered Indiana bat over large parts of its range, *Biological Conservation*, Vol. 160, 162-172 (April 2013), available at <http://www.sciencedirect.com/science/article/pii/S0006320713000207>.

mortality. Our model suggests a timeframe for action, for the species is expected to reach its lowest level of abundance by the early 2020s, no more than a decade hence.¹⁰²

The potential for white-nose syndrome to wipe out the Indiana bat in large parts of its range makes the bat's population much more sensitive to other threats, including oil and gas development. It is therefore crucial to reduce these threats. New information concerning this devastating disease reveals effects of the lease sale that "may affect [the Indiana bat]...in a manner or to an extent not previously considered," and compels reinitiation over the 2006 Forest Plan." 50 C.F.R. § 402.16.

3. *Climate Change*

In the past ten years, there has been a major increase in the scientific knowledge and understanding of the anticipated and already occurring environmental impacts resulting from global climate change, including for Ohio and the surrounding region. For example, climate change is projected to shift the Indiana bat's range, because the species' reproductive cycles, hibernation patterns, and migration are closely linked to temperature.

Warming summer temperatures will cause maternity colonies in the western portion of the range, including Ohio, to begin to decline and possibly disappear in the next 10-20 years, causing the range to shift northeast-ward.¹⁰³ Researchers note that "the effects of climate change should be considered in future threats analyses and conservation strategies for the Indiana bat," and that "management actions which foster high reproductive success and survival...will be critical for the conservation and recovery of the species."¹⁰⁴ The 2005 Biological Opinion and 2012 FWS Letter do not account for climate change effects. BLM and the Forest Service must reinitiate consultation with FWS regarding these effects on the Indiana bat. 50 C.F.R. § 402.16.

4. *Newly Listed Species*

In addition to the significant new information described above, there have been species listed since the 2005 Biological Opinion that may be affected by the Forest Plan and by the oil and gas leasing proposal. The agencies, however, have failed to reinitiate consultation, in ongoing violation of the ESA. 50 C.F.R. § 402.16. At least the following species have been designated by FWS as threatened or endangered under the ESA subsequent to the 2006 Forest Plan, and may be impacted by the projects and activities authorized by the Plan: (1) the sheepnose mussel, designated as endangered on April 12, 2012; (2) the snuffbox mussel, designated as endangered on March 15, 2012; and (3) the Northern long-eared bat, designated as threatened on May 4,

¹⁰² *Id.* (emphasis added).

¹⁰³ Loeb, Susan C. & Eric A. Winters, Indiana bat summer maternity distribution: effects of current and future climates, *Ecology and Evolution* 2013; 3(1):103–114 ("Loeb 2013"), available at <http://onlinelibrary.wiley.com/doi/10.1002/ece3.440/abstract>; see also Pryor, S. C., et al., Ch. 18: Midwest. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 418-440 (2014), doi:10.7930/J0J1012N (projecting increasing temperatures in Ohio due to climate change).

¹⁰⁴ Loeb 2013.

2015. The agencies, however, have not reinitiated consultation on the Forest Plan to address the potential impacts on these listed species.

C. BLM and the Forest Service Have Failed to Insure Against No Jeopardy and No Adverse Modification

Despite the glaring need for a number of years to reinitiate consultation with FWS concerning oil and gas development in the Wayne National Forest authorized under the 2006 Forest Plan, and consult over the December 2016 lease sale, BLM and the Forest Service have proceeded with new oil and gas leasing, and the authorization and allowance of oil and gas exploration and development activities in the Wayne National Forest. By failing to comply with their Section 7 consultation requirements, BLM and the Forest Service are in ongoing violation of their substantive duties to insure that their authorization of oil and gas leasing and exploration and development in the Wayne National Forest is not likely to jeopardize the continued existence of the Indiana bat, fanshell, pink mucket pearly mussel, sheepnose mussel, snuffbox mussel, Northern long-eared bat, and other listed species found within the action area, or result in the destruction or adverse modification of their critical habitat. 16 U.S.C. § 1536(a)(2).

D. Allowing New Leasing and Oil and Gas Development Before Renewed Consultation is Completed Would Violate Section 7(d)

Section 7(d) of the ESA, 16 U.S.C. § 1536(d), provides that once a federal agency initiates consultation on an action under the ESA, the agency “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.” The purpose of Section 7(d) is to maintain the status quo pending the completion of interagency consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to the species or adverse modification of its critical habitat.

As discussed above, both inadequacies in the 2005 Biological Opinion and new information require reinitiation of consultation, and consultation over the December 2016 lease sale. Accordingly, when the Forest Service, BLM, and FWS reinitiate consultation on the 2005 Biological Opinion, and/or BLM and the Forest Service consult with FWS over the December 2016 lease sale, as they must, the prohibitions of Section 7(d) will apply and no commitment of resources can be made until such valid consultations are completed.

If the Forest Service, BLM, and FWS do not correct the violations described above within sixty days, we intend to pursue legal action on the claims identified above after the 60-day period expires. An appropriate remedy to address these violation would be for BLM and the Forest Service to: (1) immediately revoke or suspend authorization for any lease sales and any oil and gas operations pursuant to the Decision Record for the December 2016 Lease Sale or pursuant to

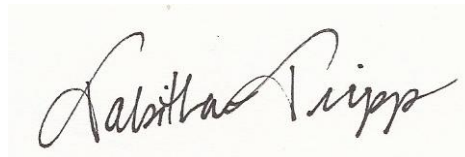
the 2006 Forest Plan, (2) promptly reinstate consultation with the FWS on the 2005 Biological Opinion, and (3) consult with FWS over the impacts of the December 2016 lease sale on threatened and endangered species.

Please do not hesitate to contact me if I can provide additional information on this topic or otherwise assist in this matter. We look forward to your prompt response.

Sincerely,



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