



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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June 18, 2012

Ms. Anne Carey
Forest Supervisor
13700 US Hwy 33
Nelsonville, OH 45764-9880

TAILS: 03E15000-2012-TA-0951
03E15000-2012-CPA-0563

Re: Incorporation of horizontal drilling and hydraulic fracturing under oil and gas activities in the Forest Plan, Wayne National Forest,

Dear Ms. Carey:

This is in response to your May 21, 2012 letter which reviewed the information presented at the meeting on April 19, 2012 between the U.S. Fish and Wildlife Service and personnel from the U.S. Forest Service. We discussed information on horizontal drilling and hydraulic fracturing in reference to the oil and gas activities already approved under the 2006 Land and Resource Management Plan. Your letter also included both a Wildlife Resource and Botany Resource Report.

On November 22, 2005, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) for the Wayne National Forest's Revised Land and Resource Management Plan (Forest Plan). Conventional (vertical methods) oil and gas activities are approved under the 2006 Land and Resource Management Plan. Horizontal drilling and hydraulic fracturing can have significant disturbance to surface resources as well as impacts to aquatic systems from the withdrawal of water. The fracturing fluids often contain hazardous chemicals that must be properly handled to avoid spills and contamination of wildlife. The Forest Plan addresses these issues under existing guidelines for oil and gas extraction.

The total acreage of surface disturbance will not change if horizontal drilling and hydraulic fracturing are implemented as methods of resource extraction. Any surface disturbance caused by horizontal drilling and hydraulic fracturing will be included in the acreage permitted under oil and gas well development. As stated in Appendix G of the FEIS well development will not disturb more than 272 total acres and/or 121 acres of disturbed land. The amount of acres that will be disturbed will not increase with the incorporation of horizontal drilling and hydraulic fracturing under the Forest Plan. The acreage limits include the drilling pad and road needed during the production phase. Due to the placement of multiple wells on a single pad the amount of habitat fragmentation may be reduced with the incorporation of horizontal drilling. However, the total area of development will remain the same. By clustering well site construction there are reduced impacts to forest interior species as there is a reduction in the edge effect.

In addition Appendix H, Notification 3, requires surveys for threatened and endangered species which limits the impacts from surface disturbance. The Forest Service is required to examine the

site before permitting any surface disturbance that would be incorporated into a lease. If there are any concerns the operator's plans may be denied. Therefore no additional disturbance is expected by incorporating horizontal drilling and hydraulic fracturing.

Hydraulic fracturing requires a significant amount of water to complete the well. Water on National Forest Service land is controlled by the Forest Service which requires approval for when and how any water will be withdrawn. In addition, various federal and state laws may also apply to water withdrawal. Therefore no excessive water removal is expected to occur with this method of resources extraction.

Due to the large amount of water and fluids required for hydraulic fracturing there is potential for a significant spill to occur. Concerns about spills and runoff have been identified in various aspects of the forest plan. Appendix F1 identifies that operators are required to construct berms around wells to contain any spills. Standards and guidelines require control valves on all pipelines that cross streams so that the flow of oil or gas can be shut down if a leak is detected. In addition, any spill is to be reported to the Ohio EPA.

A large amount of fracturing fluids are required for well development. Most of this liquid then flows back from the well. In your May 21, 2012 letter you indicate that you will require all fracturing fluids, flowback, and retention ponds to be contained within a closed system. In a closed system none of the fluids are available for contact with wildlife. The fluids will instead be contained within a truck, tank, or other structure before being disposed of. You have indicated that hydraulic fracturing fluids and flowback from well stimulation must be contained within a closed system while on Wayne National Forest Lands, or handled in some other manner consistent with new technologies as they are developed which would not expose wildlife species and habitat to significant quantities of environmental contaminants. Open pits or retention ponds for flowback from well stimulation or hydraulic fracturing fluids would not be permitted.

You have concluded that the effects of horizontal drilling and hydraulic fracturing activities on wildlife and botany resources do not differ from those addressed in the Forest Plan. Forest Plan standards and guidelines have been developed to eliminate or minimize effects from oil and gas development on wildlife and botany resources.

Based on the review of information on horizontal drilling and hydraulic fracturing and the standards and guidelines in place, incorporation of this method of resource extraction is consistent with the activities presented during the Forest planning process and associated with the existing PBO issued in 2005. Therefore reinitiation of formal consultation is not required.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C.661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969, and the U.S. Fish and Wildlife Service's Mitigation Policy

We appreciate your continued efforts to ensure that all projects are consistent with all provisions outlined in the Forest Plan and PBO. If you have any questions regarding our response or if you need additional information, please contact Jennifer Finfera at extension 13.

Sincerely,

A handwritten signature in black ink that reads "Mary Knapp". The signature is written in a cursive style with a large, prominent "M" and "K".

Mary Knapp, Ph.D.
Field Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, OH