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July 7, 2011

The Honorable Glenn Thompson, Chairman, Subcommittee on Conservation, Energy, and Forestry 1301 Longworth House Office Building Washington, D.C. 20515

The Honorable Doug Lamborn, Chairman, Subcommittee on Energy and Mineral Resources
1324 Longworth House Office Building Washington, D.C. 20515

The Honorable Tim Holden, Ranking Member, Subcommittee on Conservation, Energy, and Forestry 1305 Longworth House Office Building Washington, D.C. 20515

The Honorable Rush Holt, Ranking Member, Subcommittee on Energy and Mineral Resources 1329 Longworth House Office Building Washington, D.C. 20515

Re: Support for prohibition on horizontal drilling on future federal oil and gas leases in George Washington National Forest, as proposed in draft revised forest plan.

Dear Chairmen and Ranking Members:

On Friday, July 8, your subcommittees will hold a joint hearing which will include a review of the U.S. Forest Service's proposal, in a draft revised forest plan, to prohibit horizontal drilling on future federal oil and gas leases in the George Washington National Forest ("GW"). We write to express our strong support for the Forest Service's proposal.

The GW contains about 1.06 million acres, primarily in Virginia, with some in West Virginia. The GW is a direct source of drinking water for about 262,600 people in local communities in and around the Shenandoah Valley, including Staunton and Harrisonburg. Further, the GW is located entirely within the watershed of the James and Potomac Rivers, which supply drinking water to Richmond, VA, and Washington, D.C., among other cities, and ultimately flow into the Chesapeake Bay. The GW is the largest federal landholding in the Bay watershed.

This forest plays a key role in the local and regional culture and economy. The rugged national forest lands in the Allegheny and the Blue Ridge Mountains set the recreational and scenic backdrop for the Valley's farms and communities, and its waters sustain them. The GW is very popular for all forms of outdoor recreation, such as hunting, fishing, hiking, camping, mountain biking, bird-watching, and more. More than 9.2 million people live within a couple of hours' drive of the forest,⁴ and millions of people visit the GW annually.

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Wild Virginia, State of Our Water, at 3 (2008).

Draft Revised Forest Plan at 1-5.

³ <u>Id.</u>

⁴ Draft EIS for Revised Forest Plan at 3-280 (2011).

The GW also shelters cold mountain streams, which support some of the strongest brook trout populations in the southeast.⁵ Its forests provide important habitat for game and non-game wildlife, including black bear and migratory songbirds. The GW supports eight federally-listed threatened and endangered species and dozens of other rare fish, wildlife and plants.⁶ The GW's forests and watersheds are perhaps the most intact of any national forest in the eastern U.S., as the GW has more land with few or no roads than any other eastern national forest.

Gas and oil development in and around the GW is minimal. There are no active, producing natural gas wells on the GW and there never have been (exploratory wells drilled in the 1970s and 1980s were dry holes). Moreover, there is little history of gas production on private lands surrounding the GW in Virginia. The federal government owns the mineral rights to the vast majority (84%) of the GW, and most of those rights have <u>not</u> been leased for gas development. Currently, only 12,412 acres (1.4% of GW's federal mineral ownership) are subject to federal oil and gas leases.

There are as yet no Marcellus Shale gas wells in Virginia, so the Forest Service and the state agencies lack experience with the horizontal drilling and hydraulic fracturing used in the Marcellus. About half of the GW is underlain by Marcellus. However, as the Forest Service noted, the GW is located in the Ridge and Valley region, where the Marcellus "is folded and fractured, so the ability to develop it using horizontal drilling is questionable." ¹²

Horizontal drilling in the Marcellus Shale involves large-volume hydraulic fracturing. which poses a number of risks to environmental and public health. This type of hydraulic fracturing requires about 4-5 million gallons of water per well (figures vary). Water mixed with chemicals, including known toxics, is pumped down wells at high pressure to fracture rock and release natural gas. There are concerns about adequacy of water supplies and instream flow, particularly if fracturing water is withdrawn from small headwater streams. Natural gas drilling using hydraulic fracturing has been linked to contamination of drinking water wells with methane gas. There also is concern about potential contamination of groundwater with fracturing fluid, which is being studied. Roughly 1/3 of the fracturing fluid (again, figures vary) returns to the surface as flowback, often mixed with naturally occurring brines and/or radioactive materials, and must be disposed of. Millions of gallons of flowback, which public wastewater treatment plants often cannot adequately treat, have been discharged to rivers and streams, and flowback has been accidentally spilled into waterways as well. Land application of flowback has killed trees and other vegetation. Drilling also produces other wastes, such as tons of drilling cuttings which must be dealt with. Finally, this type of gas development is a major industrial activity with a large footprint. It fragments forests and wildlife habitat and industrializes rural

⁵ Trout Unlimited for Eastern Brook Trout Joint Venture, Eastern Brook Trout: Status and Threats, at 10 (2006).

⁶ DEIS at 1-2, and at Appendix F-52 to 54.

⁷ DEIS, Appendix K, BLM, RFD Scenario, at K-6 to 7 (2010).

⁸ <u>Id.</u> The Thornwood-Horton Field in Pocahontas County, WV, is a conventional gas field adjacent to a small portion of the GW in Highland County, VA. One well, not located on the GW, in that field drains gas from beneath some GW land. BLM RFD at K-7.

⁹ DEIS at 3-312.

¹⁰ DEIS at 3-313.

¹¹ DEIS at 3-317.

¹² USFS, FAQ re Draft Revised Plan, at 10 (2011).

areas with well-pads and associated brine and flowback pits, compression tanks, access roads, traffic by hundreds of trucks, pipelines and compressor stations. It also can adversely affect air quality.

This type of gas development would harm the GW's many natural values, including: drinking water supplies; high-quality rivers and streams; brook trout and other aquatic species; wildlife and their habitats; outdoor recreation experiences; scenic views; air quality; and the forest's contribution to the existing local economy, which is based on tourism and agriculture. Further, it likely would seriously interfere with the Forest Service's ability to meet its obligations under the National Forest Management Act and other authorities to provide for fish, wildlife, watersheds, outdoor recreation, and conservation of soil and water resources on the GW.¹³

In fall 2010, three counties (Augusta, Rockingham, and Shenandoah) and two cities (Staunton and Harrisonburg) in the Shenandoah Valley requested that the Forest Service prohibit or adopt a moratorium on horizontal drilling and/or hydraulic fracturing on the GW, citing concerns about water quality, recreation and other resources, as well as the industrialization of public national forest lands. Many local citizens, as well as conservation organizations, made the same request.

In its draft revised forest plan, the Forest Service proposed to prohibit horizontal drilling on future federal oil and gas leases. This proposal is not a ban on gas development in the region, nor is it permanent. The proposed prohibition would apply only to federal oil and gas leases on the GW, not to the potential exercise of private mineral rights on about 16% the forest. Moreover, under this proposal, roughly 993,200 acres (about 93%) of the GW would be available for federal leasing for vertical drilling. Additionally, the GW is surrounded by and interspersed with private lands with potential Marcellus gas resources, the availability of which would not be affected by this proposal. Finally, the proposed limit on horizontal drilling would be part of a 10-15 year management plan, and the draft plan clearly states that the agency could reconsider if production in nearby areas demonstrates the gas is developable without impact to water quality.

Therefore, our organizations feel strongly that the Forest Service would be well justified in prohibiting, in the revised plan, horizontal drilling on future federal oil and gas leases in the GW. This proposal responds to local requests and concerns about impacts of gas development on these public national forest lands, and it is necessary to protect the GW's sensitive and unique resources, not least of which are the considerable public water supply resources.

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¹³ See, e.g., 16 U.S.C. § 1604(g)(3)(A).

¹⁴ DEIS at 3-305. Some of the undersigned organizations believe that the proposal to allow vertical drilling on nearly the entire forest warrants additional analysis.

Thank you for your consideration. Please contact Sarah Francisco at the Southern Environmental Law Center if you have any questions.

Sincerely,

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cc: Members of the Subcommittee on Conservation, Energy, and Forestry; Members of the Subcommittee on Energy and Mineral Resources; Tom Tidwell, Chief of U.S. Forest Service; Joel Holtrop, Deputy Chief for National Forest System; Tony Ferguson, Director of Minerals and Geology Management; Elizabeth Agpaoa, Southern Regional Forester; Maureen Hyzer, George Washington and Jefferson National Forests Supervisor.