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BUREAU OF LAND MANAGEMENT
EASTERN STATES OFFICE

Via Fax and Overnight Mail

United States Department of the Interior
Bureau of Land Management – Eastern States
7450 Boston Boulevard
Springfield, VA 22153

**RE: Protest for March 18, 2010 Pendleton County, WV, Monongahela National Forest
BLM Competitive Oil & Gas Lease Sale**

Specific Protest to Parcel Numbers: ES-080-03/10 (WVES 56279 ACQ)

**Streams Potentially Impacted: Vance Run; Middle Ridge Hollow; Bud Hollow; Teeter
Camp Run; Little Low Place Hollow; Elk Run; Big Run; Laurel Fork of North Fork**

To Whom It May Concern:

Please accept the following protest on behalf of Trout Unlimited's Potomac Headwaters Home River Initiative pursuant to the Bureau of Land Management's oil and gas lease sale offerings of certain parcels within the Monongahela National Forest in West Virginia, scheduled to be offered at the March 18, 2010 BLM Competitive Oil and Gas Lease Sale. Trout Unlimited's Potomac Headwaters Home River Initiative (referred to in the remaining document as "TUPHHRI") specifically protests the individual parcels identified above for the following reasons, with detailed discussion of these reasons further in the document:

- The proposed parcels for lease are located within crucial fisheries and wildlife habitats, and include populations of native brook trout which are recognized as a Management Indicator Species (MIS) in the 2006 Monongahela Forest Plan (MFP) with the specific goal of maintaining existing brook trout stream mileage.
- The process has failed to follow Forest Plan Implementation guidelines, particularly pertaining to site-specific planning as described within the MFP.
- The BLM and the Forest Service consider areas within and surrounding these lease parcels to be of high value to the outdoor recreation industry, which includes fishing, hunting, tourism, local communities, and economic benefits to the state of West Virginia. The BLM should not offer these lease parcels for sale until a full economic impact analysis be completed that addresses these impacts.
- There is no indication, primarily due to the lack of a recognized NEPA process, that consideration of the Clean Water Act provisions relating to Antidegradation, particularly the Tier 3 designation for native brook trout streams, have been recognized or addressed.
- The BLM and Forest Service have not completed a thorough analysis on the potential groundwater impacts and its associated relationship with surface water resources that can occur from drilling within these proposed lease parcels.

- There is no evident consideration of the close proximity of the proposed lease parcels to MP 6.2 and MP 8.1 areas which possess high recreational and wildlife values, specifically for impairments to viewshed and disturbance factors.
- The BLM has not adequately or thoroughly addressed the human health effects from oil and gas drilling in the proposed parcels being offered for sale.
- Due to the significant impacts to air quality and visibility associated with oil and gas development, the BLM and Forest Service must include an air quality analysis assessment with the areas these lease parcels are being offered.
- The lack of evaluation of analysis of climate change and its risk factors to fisheries and wildlife habitat should be assessed prior to this lease sale.

Interests of the Protesting Party

Trout Unlimited is a private, non-profit conservation organization that has more than 140,000 members nationwide dedicated to conserving, protecting and restoring North America's trout and salmon fisheries and their watersheds. Since 1959, TU has dedicated staff and volunteers toward the protection of sensitive ecological systems necessary to support robust native and wild trout and salmon populations in their respective range. TU recognizes that the value of public lands is unparalleled in providing habitat to coldwater fisheries, drinking water and wildlife habitat. TU's expanding conservation program includes a sportsmen's conservation project that recognizes the importance of protecting public lands for the survival and restoration of wildlife and fisheries. TU's sportsmen's conservation project is not limited to anglers; TU recognizes that many people who fish on public lands also hunt. TU believes that actions taken on public lands are ultimately reflected in the quality of fish and wildlife habitat and populations, and the quality of the outdoor experiences of TU members.

Trout Unlimited has invested time and funding to restore Potomac headwater streams since the inception of the Potomac Headwaters Home River Initiative in 2005. Projects have been completed on private and public lands, and include work for the Monongahela National Forest in concert with USDA-MNF management team. Our initiative works to maintain and expand (native) brook trout habitat and populations in the face of diminishing trends for both. The watershed that this lease is proposed is the foundation of our work. It is among the highest rated brook trout habitat in the Potomac drainage, and has survived logging, development, and other anthropogenic disturbances, but none would compare to the devastation that the introduction of millions of gallons of toxic hydraulic fracturing fluids could impose on one of the last bastions of brook trout habitat in the mid-Atlantic region.

In mid-Atlantic region, TU has over 27,000 members in 126 state chapters with many of those members actively utilizing and enjoying the resources of the many rivers and watersheds located on West Virginia's U.S. Forest Service lands. Attributes of these lands and watersheds include clean water, clean air, fishing, hunting, and wildlife viewing opportunities. TU members are active participants in a variety of outdoor recreational and business pursuits within and near the lease sale parcels. TU believes the impacts from the development and production of these oil and gas leases will adversely affect coldwater fisheries highly valued by our members, as well as other non-members who hunt, fish, recreate, and do business in and around these lease sale areas.

Potential Impacts and Influences not Duly Considered, Protests to Lease

There is no indication that economic and recreational impacts from development operations related to the leased areas have been considered. Recreational fishing opportunities provided by brook trout and other game fish on the Monongahela National Forest (MNF) have an economic impact of nearly \$38 million/year (American Sportfishing Association, 2006). The related watersheds are highly desirable destinations for brook trout fishing, and other forms of outdoor recreation, due to the seclusion and near pristine conditions that can be experienced in the majority of these areas. The aesthetics and solitude of these areas would be negatively impacted by vast road networks, site development, drilling operations, truck traffic, pipelines and all other activities involved with gas exploration. The proposed lease areas share common borders with a MP 6.2 Semi-Primitive Area, and a MP 8.1 National Recreation Area. Development activities would prove to be detrimental to the designated management prescriptive in these surrounding areas, and should bar any proposed leases on those grounds alone.

Headwater areas such as the streams involved are critical from a protection standpoint to downstream water supplies and overall watershed health. An important part of aquatic ecosystem management is the link between aquatic habitat conditions and watershed conditions. Even slight disturbances in areas as sensitive as these watersheds can create compounded impacts further downstream, with accidental fluid discharge and increased sediment loading being primary concerns. Other concerns associated with land management activities are increased water temperatures, decreased habitat and habitat fragmentation. Additional roads and site disturbances could result in detrimentally modified drainage patterns including flashiness increased peak runoff, decreased critical base flows, increased erosion, and stream sedimentation. Eighty-four percent of MNF lands in the North Fork of the South Branch Potomac, which is a fifth-level watershed containing all of the streams listed in the lease offering, is classified as being highly erosive due to soil types and topography. Soil disturbances at the proposed lease areas have a potential to degrade the aquatic system and suppress the resident brook trout population. Headwater species, such as brook trout, are naturally in closer proximity to management actions and more susceptible to those actions resulting in a far greater influence on population viability. Current management of NFS lands has the greatest potential to influence native and wild trout populations by directly altering in-stream habitat conditions, by affecting natural watershed processes that indirectly influence in-stream habitat conditions, and by limiting connectivity within a system. These factors must be taken into consideration, but we see no indication that these issues have been addressed in any of the prescribed stipulations.

An additional influence affecting the resident brook trout populations is the fact that these specific populations are isolated from the mainstems of North Fork of the South Branch of the Potomac and Big Run for the largest part of the year due to downstream impairments. Illegal, and ill-advised, dredging of the North Fork and lower Big Run occurred after major flood events in 1985, and again during three flood events in 1996. A review by MNF fisheries biologists in 2008 concurs with TU project management that a majority of the lower stream segments were rendered both uninhabitable and impassable except under certain higher flow conditions, in addition to the devastating destruction of the aquatic and riparian habitat. Any further stress factors on the remaining populations could easily lead to the loss of the brook trout in these watersheds.

There is no evidence that buffer zone requirements within the MFP have been considered in the lease sale. The existing roads into the lease area are degraded forest logging roads that cross and closely parallel many of the streams involved, with many portions of the roads running within the 100' buffer zone exclusion area. Any attempts to upgrade these roads to a level that could be used by large trucks would cause serious levels of disturbance and riparian vegetation removal to meet necessary standards. These types of activities would assuredly result in undesirable impacts to the aquatic and riparian habitat and cause increased sediment and temperature impairments to the stream. The road network required would also result in a long-term source of impairment due to the need to leave the road systems in place and maintained for 30 to 50 years for ongoing well-site servicing. There are no mitigation alternatives available for these impacts due to the already existing high quality of these streams.

There is a failure in any information made available addressing the withdrawal and disposal of water needed for the drilling operations. Water withdrawal from any of the listed streams would be unacceptable due to flow conditions too low to significantly draw upon, and the strong possibility of pump failure and back flushing which could result in fish kills and water quality impairments in high quality streams. The closest location for acceptable water withdrawal would be Buffalo Lake near Bartow, WV or the Tygart River backpool near Elkins, WV which would require travel of up to two hours each way across high mountain roads.

TU is additionally concerned with the handling of fluids related to the hydro-fracturing process in the Marcellus formation. In the past, hydro-fracturing in formations such as the Oriskany primarily used a soap and water mixture. In the Marcellus fields being developed today we are seeing the use of a mixture containing up to 54 assorted additives, with many of them being toxic and/or known carcinogens, and the use of at least one of four herbicides. A spill of soap and water, which could result in short-term impacts to a stream, cannot be compared to the expected stream annihilation that would result from a spill of the currently preferred concoction. This is an unacceptable risk that should not be considered under present operating procedures being observed where drilling is actively occurring. One only needs to look at the incident on Dunkard Creek, on the PA/WV border, where life forms including fish and endangered mussels were erased from a 35-mile stretch of stream to understand the level of destruction that would occur in the event of a spill or release.

Discussion with MNF staff indicates a reliance on state law and enforcement actions to provide confidence the activities of well site operators cause no harm to the trust resources managed by MNF. However, no state laws exist today specific to Marcellus shale operations and enforcement of minimal drilling rules are not adequately enforced by state inspection infrastructure, according to comments by Oil and Gas Chief Martin in comments made at a presentation in marlington in 2008. Guidance documents provide 'rule of thumb' suggestions to drilling operators, but lack direct and causative actionable enforcement. It is incumbent upon the National Forest and its agents (Bureau of Land Management) to provide a higher level of respect and responsibility for public trust resources such as found in this watershed. It is this lack of due diligence which makes the proposed lease questionable to the point of misfeasance. Prior experience with drilling on sensitive areas within the Forest provide robust evidence of the need for more stringent control, especially in sensitive and diminishing rare habitats such as the Vance Run area.

Applicable Requirements and Guidelines

A) NEPA Process

TU believes the BLM and Forest Service have failed to consider important aspects of protecting the immediate vicinities of river and stream segments with the above identified parcels and requests that these parcels be withdrawn from the lease sale. TU has identified these parcels as occurring in Eastern brook trout habitat that contain viable populations. Recent studies on impacts to fish and wildlife populations further support the negative impacts that oil and gas drilling is having on critical habitat which supports fish and wildlife. When compared to other BLM and Forest Service leasing decisions that provide more protective stipulations, the lease specifications on the contested leases demonstrate a lack of adequate protection measures for fish and wildlife that further justify TU's concerns.

The 2006 MFP was created and approved under a very broad NEPA process with the intention of implementing the Plan on a broad, landscape scale. The understanding, as clearly expressed within the Plan, was that more specific NEPA processes and implementation plans would be carried out at more site specific levels as land management activities were presented for consideration and evaluation. There seems to be a failure to comply with that process in this case. There has been no indication of a NEPA process to consider these proposed leases.

Additionally, the 2006 MFP speaks directly to site specific planning involving Watershed Assessment, Inventory of Watershed Condition, NEPA Analysis, and planning for Monitoring and Evaluation. We can find no evidence that any of these requirements have been addressed or included in the decision to make these leases available for development. These actions should occur prior to a lease sale presented as an opportunity for development.

B) Clean Water Act Compliance

The portions of the streams identified located on MNF lands contain native brook trout populations, which results in these streams being defined as a Tier 3 designation under Antidegradation Rules of West Virginia, as required and described under the Federal Clean Water Act. The WV Rule clearly states that, "Tier 3 waters, or Outstanding Natural Resource Waters (ONRW), are to be maintained, protected and improved where necessary. Any proposed new or expanded regulated activity that would degrade (result in a lowering of water quality) a water body that has been designated an ONRW, other than temporary, lowering of water quality, is prohibited." This designation has clearly not been taken into consideration in preparation of making the proposed leases available. The review of all activities that may affect the existing water quality must be evaluated to determine no significant impact prior to any further movement toward sale or development.

C) Air Quality Impacts

New information concerning air quality impacts from oil and gas development should also be included in BLM's analysis prior to offering parcels for lease. A recent study on ozone pollution conducted by the National Oceanic and Atmospheric Administration (NOAA) in Boulder, Colorado suggested the hazards of ozone pollution from oil and gas fields is more widespread than originally thought (NOAA January 2009; Rocky Mountain News article, January 19, 2009) and consideration of this impact must be addressed (EPA, Denver Regional Office, 2009). Consideration of the implications of ozone production in areas where oil and gas production is increasing must be a part of BLM's responsibilities in offering lease parcels.

D) Executive Order 13443 Mandates Consideration of Wildlife and Outdoor Recreation

On August 16, 2007, President Bush signed Executive Order 13443, which directs federal agencies to "[m]anage wildlife habitats on public lands in a manner that expands and enhances hunting opportunities, including through the use of hunting in wildlife management planning." Executive Order 13443, *Facilitation of Hunting Heritage and Wildlife Conservation*, § 2(c) (Aug. 16, 2007). The Executive Order further requires that agencies "[e]valuate the effect of agency actions on trends in hunting participation and, where appropriate to address declining trends, implement actions that expand and enhance hunting opportunities for the public." *Id.* § 2(a).

We cannot emphasize enough the importance of the impacts that are being felt and will be felt if the parcels being offered at the March 18, 2010 lease sale are ultimately explored or developed for fluid mineral production. As a reminder, the Executive Order specifically requests that the agencies "...evaluate the effect of agency actions on trends in hunting..." Further, TU does not understand how the BLM can offer leases in prime wildlife habitat while being asked to "*facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat.*" *Id.* § 1. The record is absent of any evidence that the BLM considered the mandates of Executive Order 13443 in deciding to offer parcels for this lease sale. Although Executive Order 13443 states that it does not create any substantive right enforceable at law, the BLM should nonetheless consider the requirements of the order and perform all review necessary to comply with its mandates prior to offering the parcels at the March 18, 2010 lease sale.

Irretrievable Commitment of Resources at Leasing Phase

TU's leasing concerns discussed above are amplified by the BLM's practice of vesting development rights at the time of lease issuance, regardless of specific resource concerns that might arise between the time of leasing and the time of actual development. This practice can lead to situations where the agency is precluded from imposing necessary stipulations for protection of resources because such stipulations are perceived to infringe on the vested rights of the lessee.

Because of the practice of vesting development rights at the time of lease issuance, though, TU is concerned that should a site-by-site analysis reveal that a particular parcel is not appropriate for surface occupancy, or other types of impacts, that the BLM's hands would be tied, and the agency would be unable to effectively protect the resource. This process should not be allowed to move forward to that level of commitment at this time due to the total lack of a NEPA process and other required and necessary information that is lacking or missing altogether.

B. New Significant Information Exists Concerning Impacts to Eastern Brook Trout

The Eastern Brook Trout Joint Venture (EBTJV) was formed in 2005 and consists of fisheries and other resource professionals from 17 Eastern states as well as the U.S. Fish & Wildlife, U.S. Geological Service, and U.S. Forest Service. The establishment of the EBTJV has led to a more complete assessment of the Eastern brook trout's population status, abundance and distribution. The Big Run watershed is only one of three remaining Eastern brook trout populations in WV considered to be a healthy, intact population. The Laurel Fork watershed in Virginia, and recipient of Vance Run's flow, is another designated healthy and Intact by the EBTJV. It should be noted that less than 10% of all the historic brook trout watersheds are deemed Intact, across the entire historic range of native eastern brook trout. Placing, not one but two, of these watersheds in peril appears reckless and shows inadequate knowledge of local conditions and the resources within.

Recent scientific findings regarding climate change also amounts to new significant information that the BLM must consider prior to offering public lands for lease. TU has conducted several different analyses for vulnerability scenarios for Eastern brook trout based on current data availability and is able to provide local extirpation estimates of populations for Eastern brook trout. TU's analysis is based on the combined threat of climate change-induced environmental impacts and the current likelihood of population persistence.

TU's climate change analysis models three future conditions expected to have the greatest impact on trout – warmer summer temperatures, increased winter flooding, and increased wildfires. The analysis is conducted at the subwatershed scale (10,000 – 40,000 acres). The population persistence analysis is grounded in conservation biology principles on the relationship between patch size and population viability. Specifically, TU's analysis integrates data on population size (abundance), occupied stream habitat, and watershed patch size.

TU has completed these analyses across the entire range of Eastern brook trout and has found that more than 50 percent of the remaining habitat does not meet minimum supporting requirements for persistence. Of the habitat that does meet these minimum requirements, over 70 percent are at high or moderate risk from climate change impacts. When taken in light of the fact that less than 55 percent of the historic range is currently occupied, every remaining population is critical to the survival of the species.

These findings also make clear that if interested parties, including the BLM and Forest Service, are to maintain the Eastern brook trout as a viable native species, populations will need more habitat options than are currently available. One of the key points in the 2006 MFP Forest Plan Direction is to maintain or improve habitat for native brook trout. In other words, we not only need to protect existing habitat, but we also need to restore other areas that have already been lost both in terms of populations and habitat. Given current habitat degradation and climate change-induced environmental impacts, sites that offer potential habitat for the future should not be further degraded or lost because connectivity between isolated populations of Eastern brook trout will be critical to future survival of the species. It will also be necessary for all Eastern brook trout populations to have access to thermal refugia and new habitats after fires and floods.

C. Lack of thorough Recognition of Groundwater Analysis and Relationship to Parcels being Offered

Springs from aquifers occur within these resource management areas where the BLM has parcels for sale. These springs supply important water to Eastern brook trout streams. The lack of groundwater analysis and understanding of the relationship between surface and groundwater systems by the BLM and the Forest Service is a significant challenge to the maintenance and long-term survival of Eastern brook trout populations. Within the Forest Service, little research has been allocated toward better understanding the groundwater and surface water relationships that supply water downstream to millions of Americans. There is also a lack of information for the relationship of groundwater spring systems in Pendleton County, WV, but what is known is that the limestone system is vast, and can be easily degraded by uninformed land management decisions. However, that relationship is vital to the survival of fisheries and wildlife, and sustaining groundwater systems must be considered when federal agencies allow projects that require use of, or affect, these groundwater systems.

In summary, TU and our members are extremely concerned with the prospect of oil and gas development in watersheds containing Eastern brook trout because of the outdated and inadequate groundwater analysis contained in the outdated FEIS's. Significant new information exists requiring the BLM to undertake supplemental environmental analysis.

D. New Information Regarding Climate Change Requires Additional NEPA Analysis

As applicable federal law, implementing regulations and memoranda, and court precedent make clear; the BLM must analyze the impacts arising out of new information not previously available when original NEPA documents were drafted. With respect to this lease sale, new information has become available regarding the impacts of climate change on fish and wildlife and their habitats that was not included in the BLM's previous analyses of impacts from oil and gas development on the sale parcels. The BLM's reliance on upon land use plans that authorize leasing but do not analyze the cumulative impacts of climate change represents a NEPA violation and additional NEPA analysis is required before the irretrievable commitment of leasing is made.

G. New Information Regarding Air Quality Impacts Requires Additional NEPA Analysis

The Clean Air Act, 42 U.S.C. § 7475(d)(2)(B), requires both the BLM and the Forest Service to “protect the air quality related values (including visibility)” of lands within “Class I” airsheds. The FS and the BLM have acknowledged that air quality impacts are a potential concern and with the pace and extent of oil and gas lease sales and drilling activity that could occur with further lease sales and expected development, the level of concern for West Virginia’s air quality should remain high. As mentioned earlier, the most recent study by NOAA implicates oil and gas development as a main cause of increased winter ozone pollution in remote areas. This new information, coupled with the increasing concerns the public has with health issues and oil and gas development, is compelling evidence for the BLM and the FS to further analyze the potential impacts that could be associated with leasing these parcels for oil and gas development.

Conclusion

The NEPA documents related to the 2006 MFP upon which the BLM has relied upon to offer public land for mineral development are not sufficient for site specific application. TU feels that the agencies’ assessments and findings fail to acknowledge the significant commitment to development and production that arises upon issuance of a federal oil and gas lease. Absent comprehensive and complete analysis, the BLM will make irretrievable commitments of resources that are likely to harm fish and wildlife populations in West Virginia, air quality and water quality sources, as well as the members of the public who enjoy recreational and business opportunities on and around public lands.

TU respectfully requests the withdrawal of the Vance Run identified lease parcels until adequate analysis of potential impacts associated with water quality, recreation, Eastern brook trout populations, air quality, climate change/drought, and the resource management plans are completed and the risks associated with the activities are avoided.

Sincerely,

Gary Berti
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Trout Unlimited
Potomac Headwaters Home River Initiative

Cc: Clyde Thompson
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