



NATURAL RESOURCES DEFENSE COUNCIL

July 19, 2012

VIA FACSIMILE: (703) 440-1551

Dr. John Lyon
Director
Bureau of Land Management Eastern States Office
United States Department of the Interior
7450 Boston Boulevard
Springfield, Virginia 22153

RE: Protest of Parcels Included in the Bureau of Land Management, Eastern States Office Notice of Competitive Oil and Gas Lease Sale, September 13, 2012

Dear Dr. Lyon:

The Natural Resources Defense Council (“NRDC”) hereby submits this protest letter on behalf of Atchafalaya Basinkeeper, Gulf Restoration Network, Louisiana Audubon Council, Louisiana Environmental Action Network, Lower Mississippi Riverkeeper, NRDC, Ouachita Riverkeeper, Rapides Wildlife Association, the Delta Chapter of the Sierra Club, and Wild South (“**protesting parties**”) in accordance with 43 C.F.R. § 3120.1-3.¹ These parties protest the Bureau of Land Management’s (“BLM”) planned offering of sixty-six lease parcels at the September 13, 2012 oil and gas lease sale. The parcels are publicly owned lands of the Kisatchie National Forest in Louisiana, and areas where the federal government owns minerals beneath private lands (“**split estate lands**”) within the proclamation boundaries of the Bienville and Homochitto National Forests in Mississippi, and will hereinafter be referred to as “the parcels” or “the leases.”²

¹ All materials cited herein, the majority of which are readily available online, are incorporated in full herein by reference. The protesting parties have included some materials are not readily available online as exhibits.

² The contested leases are: ES-001-09/12 LAES 057522 ACQ, ES-002-09/12 LAES 057523 ACQ, ES-003-09/12 LAES 057524 ACQ, ES-004-09/12 LAES 057525 ACQ, ES-005-09/12 LAES 057526 ACQ, ES-006-09/12 LAES 057527 ACQ, ES-007-09/12 LAES 057528 ACQ, ES-008-09/12 LAES 057529 ACQ, ES-009-09/12 LAES 057530 ACQ, ES-010-09/12 LAES 057531 ACQ, ES-011-09/12 LAES 057532 ACQ, ES-012-09/12 LAES 057533 ACQ,

Should BLM proceed with the planned sale of these leases, it will violate federal law and BLM policies. For the reasons stated below, the parcels should be withdrawn from this lease sale by BLM.

I. PROTESTING PARTIES AND THEIR INTERESTS

Atchafalaya Basinkeeper

Atchafalaya Basinkeeper is a non-profit organization dedicated to preserving the ecosystems within the Atchafalaya Basin. It is a Waterkeeper under the Waterkeeper Alliance, which is a grass roots advocacy organization consisting of 170 local Waterkeeper programs and dedicated to preserving and protecting water from polluters.

Gulf Restoration Network

Gulf Restoration Network is a non-profit corporation committed to uniting and empowering people to protect and restore the natural resources of the Gulf Region. To this end, the GRN works to provide technical support and mentoring to grassroots groups, to connect our members to developments on national and regional issues of importance to their work, and to provide coordination, when needed, of member activities across the region.

Louisiana Audubon Council

Louisiana Audubon Council is a statewide conservation non-profit corporation composed of representatives from various Audubon Society chapters and at-large delegates from across the

ES-013-09/12 LAES 057534 ACQ, ES-014-09/12 LAES 057535 ACQ, ES-015-09/12 LAES 057536 ACQ, ES-016-09/12 LAES 057537 ACQ, ES-017-09/12 LAES 057538 ACQ, ES-018-09/12 LAES 057539 ACQ, ES-019-09/12 LAES 057540 ACQ, ES-020-09/12 LAES 057541 ACQ, ES-021-09/12 LAES 057542 ACQ, ES-022-09/12 LAES 057543 ACQ, ES-023-09/12 LAES 057544 ACQ, ES-024-09/12 LAES 057545 ACQ, ES-025-09/12 LAES 057546 ACQ, ES-026-09/12 LAES 057547 ACQ, ES-027-09/12 LAES 057548 ACQ, ES-028-09/12 LAES 057549 ACQ, ES-029-09/12 LAES 057550 ACQ, ES-030-09/12 LAES 057551 ACQ, ES-031-09/12 LAES 057552 ACQ, ES-032-09/12 LAES 057553 ACQ, ES-033-09/12 LAES 057554 ACQ, ES-034-09/12 LAES 057555 ACQ, ES-035-09/12 LAES 057556 ACQ, ES-036-09/12 LAES 057557 ACQ, ES-037-09/12 LAES 057558 ACQ, ES-038-09/12 LAES 057559 ACQ, ES-039-09/12 LAES 057560 ACQ, ES-040-09/12 LAES 057561 ACQ, ES-041-09/12 LAES 057562 ACQ, ES-042-09/12 LAES 057563 ACQ, ES-043-09/12 LAES 057564 ACQ, ES-044-09/12 LAES 057565 ACQ, ES-045-09/12 LAES 057566 ACQ, ES-046-09/12 LAES 057567 ACQ, ES-047-09/12 LAES 057568 ACQ, ES-048-09/12 LAES 057569 ACQ, ES-049-09/12 LAES 057570 ACQ, ES-050-09/12 LAES 057571 ACQ, ES-051-09/12 LAES 057572 ACQ, ES-052-09/12 LAES 057573 ACQ, ES-053-09/12 LAES 057574 ACQ, ES-054-09/12 LAES 057575 ACQ, ES-055-09/12 MSES 057576 PD, ES-056-09/12 MSES 057577 ACQ, ES-057-09/12 MSES 057578 ACQ, ES-058-09/12 MSES 057579 ACQ, ES-059-09/12 MSES 057580 ACQ, ES-060-09/12 MSES 057581 ACQ, ES-061-09/12 MSES 057582 ACQ, ES-062-09/12 MSES 057583 ACQ, ES-063-09/12 MSES 057584 ACQ, ES-064-09/12 MSES 057585 ACQ, ES-065-09/12 MSES 057586 ACQ, ES-066-09/12 MSES 057587 ACQ.

state. A major Council goal is maintaining a healthy human environment by protecting the diverse habitats in which birds and other wildlife flourish.

Louisiana Environmental Action Network

Louisiana Environmental Action Network's Mission is to foster communication and cooperation among individuals and organizations to address the environmental problems of Louisiana. Our goal is to create, maintain and preserve a cleaner and healthier Louisiana.

Lower Mississippi Riverkeeper

Lower Mississippi Riverkeeper's mission is to protect, preserve and restore the ecological integrity of the Mississippi River Basin, for current users and future generations, through advocacy and citizen action.

Natural Resources Defense Council

NRDC is a non-profit environmental membership organization with more than 565,000 members throughout the United States. Over 4,500 NRDC members and activists reside in Louisiana and about 2,000 reside in Mississippi. NRDC members use and enjoy national forest lands in Louisiana and Mississippi, including specific lands at issue in this protest. NRDC members use these public lands for a variety of purposes, including: recreation, solitude, scientific study, and conservation of natural resources. NRDC has had a longstanding and active interest in the protection of the nation's public lands. For many years, NRDC has worked with both the Bureau of Land Management and the Forest Service to enhance public participation in government decision making and to protect important lands and wildlife.

Ouachita Riverkeeper

Ouachita Riverkeeper is a non-profit corporation which monitors the Ouachita watershed in both Arkansas and Louisiana. Our goal is to return the river to its original condition and restore its reputation as one of the 10 most beautiful rivers in the world. If necessary we will take legal action to protect the river and its watershed from pollution. Communicating with and educating the public on the importance of the watershed and how they can help will be a priority.

Rapides Wildlife Association

Rapides Wildlife Association has been in the forefront of protecting central Louisiana's wildlife and water resources for over half century. From going to court to keep agricultural runoff out of the productive Saline Lake overflow fishery to maintaining the integrity of seasonal draining and reflooding in Catahoula Lake, one of the 10 most important wetlands in North America, the group has risen to the occasion time and again. The Bayou Boeuf watershed in Rapides Parish is one of only two known habitats for the Louisiana pearlshell mussel, an excellent indicator of water quality.

Sierra Club, Delta Chapter

The Delta Chapter is the Statewide Chapter of the Sierra Club in Louisiana. The Sierra Club is a non-profit corporation organized under California law, with more than 700,000 members nationwide. Sierra Club's mission is to explore, enjoy, and protect the wild places of the Earth; to practice and promote the responsible use of the Earth's resources and ecosystems; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.

Wild South

Wild South is regional non-profit organization that has worked throughout the South for over twenty years to inspire people to value, protect, and enjoy the wild character and natural legacy of the South. Our work involves thousands of people working together to protect and restore national forest ecosystems, maintain biodiversity, and promote responsible recreation. Our members routinely use and enjoy the national forests of Mississippi and Louisiana for recreation, solitude, and to connect with their heritage. We are actively engaged in efforts all across the Southeast to preserve the integrity of our last wild places and ensure that our lands, air, water, and wildlife are protected today and for future generations.

II. STATEMENT OF REASONS

Were the BLM to offer the leases for sale, the agency would violate the Federal Onshore Oil and Gas Leasing Reform Act, 30 U.S.C. §§ 181 *et seq.* (“**FOOGLRA**”); the National Environmental Policy Act, 42 U.S.C. §§ 4321 *et seq.* (“**NEPA**”); the National Forest Management Act, 16 U.S.C. §§ 1600 *et seq.* (“**NFMA**”), the Federal Land Policy and Management Act, 43 U.S.C. §§ 1701 *et seq.* (“**FLPMA**”), the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq.* (“**ESA**”), and the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, because the BLM has (1) Failed to provide adequate information in violation of the Federal Onshore Oil and Gas Leasing Reform Act and BLM policies; (2) Failed to provide an adequate environmental analyses in violation of NEPA; (3) Violated NFMA by failing to conform the lease sale to the Kisatchie National Forest Plan; (4) Violated FLPMA by failing to show compliance with an applicable Resource Management Plan; (5) Violated the ESA by failing to properly consult and/or to reinitiate consultation with the Fish and Wildlife Service; and (6) Violated the Clean Water Act by failing to ensure compliance with state water quality standards. Accordingly, BLM should withdraw the parcels from the lease sale until the BLM and the Forest Service have fully complied with federal law.

A. BLM has Failed to Provide Adequate Information to the Public Regarding the Proposed Leasing, in Violation of BLM Policies and Federal Law.

BLM has not provided sufficient information to the public regarding the parcels involved in this lease sale. As a result, it is extremely difficult for concerned members of the public to

understand the impacts of oil and gas leasing and development here and how it would affect them. The failure to provide this information prevents members of the public from exercising their right to file a well-informed, meaningful protest founded on information about potential environmental and public health impacts, the locations of the parcels, and the resources which leasing might impact.

1. *BLM has not provided documents demonstrating compliance with the National Environmental Policy Act.*

BLM policies require that each lease sale notice must contain a link to the NEPA documentation for that sale.³ Without BLM providing such a link, the public cannot readily determine what documents might provide relevant environmental analysis or gauge whether the agency is in compliance with the law. However, no such link was provided in the September 2012 Lease Sale Notice and the BLM has not otherwise furnished NEPA documentation or indicated its reliance on any documents.

On June 29, 2012, NRDC sent a letter to BLM Eastern States Office requesting that the agency provide NEPA documentation, including any Determinations of NEPA Adequacy, upon which BLM relied in making its determination to include the leases in the Lease Sale Notice.⁴ On July 7, 2012 NRDC sent another letter to BLM Eastern States Office reiterating the request.⁵ To date, no response has been received.

2. *BLM will violate the Federal Onshore Oil and Gas Leasing Reform Act if it proceeds with leasing the parcels because it has not provided adequate maps.*

The BLM has not provided maps of “the location of all lands to be leased, and of all leases already issued in the general area,” a requirement of the Federal Onshore Oil and Gas Leasing Reform Act.⁶ In connection with the lease sale, BLM provided 13 separate maps in Portable Document Format (PDF) file. The maps in this file encompass the lands containing the parcels the BLM proposes to lease. However, the majority of the 66 parcels offered in the September 2012 lease sale are not actually depicted on these maps, and no lease sale parcels are labeled by parcel number.

The maps provided by BLM for the areas in the Bienville and Homochitto National Forests show lease boundaries as blue outlines. The lease parcels are not labeled with lease numbers, and two

³ See Instruction Memorandum No. 2010-117 Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews part III.G (5/17/2010) available at http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2010/IM_2010-117.html.

⁴ Attached as exhibit 1.

⁵ Attached as exhibit 2.

⁶ See 30 U.S.C. § 226(f).

of the maps contain multiple lease parcels. But including boundaries does allow a precise determination of the location of these parcels. The maps provided by the BLM for the areas of the Kisatchie National Forest, however, provide no lease boundaries. Those maps show the Public Land Survey System (PLSS) Townships that contain the leases, as well as land ownership, mineral ownership and surface use restrictions. Because most of the leases are defined by aliquot part or lot, which are finer land divisions than a PLSS section, precise lease boundaries are not, in fact, shown in these maps, and no parcel number labels are provided. This makes it difficult or impossible to precisely determine the exact locations and borders of proposed parcels in some cases.⁷ None of the maps indicate whether and where land in the general area is already under lease.

The maps provided by BLM for the September 2012 lease sale do not reasonably provide sufficient information for the public to understand where specific lease sale parcels are located. Nor do the maps inform the public about the potential cumulative effects that might be implicated by existing leasing in the area. An NRDC expert used Geographic Information Systems (GIS) software in conjunction with the PLSS definitions of the lease sale parcels and the maps in order to understand more precisely where federal mineral rights are being sold in Louisiana and Mississippi. Yet even this expert was unable to precisely determine the lease parcel boundaries in all cases.

The letters sent by NRDC to BLM Eastern States Office on June 29, 2012 and on July 7, 2012 (discussed above) also included requests for maps that met the standards of the Federal Onshore Oil and Gas Leasing Reform Act.⁸ No further maps or response was provided by BLM. Without adequate maps, the public is unable to determine the specific or cumulative impacts of leasing on human health, important forest resources, and the environment. BLM also cannot realistically comply with its obligations under NEPA to conduct a site-specific environmental analysis or provide sufficient information to allow surface management agencies such as the Forest Service to do so. Moreover, neither the Forest Service nor BLM can meet their legal obligations under the National Forest Management Act to ensure the proposed leasing is consistent with the applicable forest plans without adequate maps indicating the exact boundaries of the parcels to be leased. If BLM does not have sufficient resources to map all parcels itself, BLM should require that a map is included with expressions of interest for leasing as a pre-requisite for moving forward with a proposed sale of a parcel.

Without the required NEPA documentation and mapping of the lease parcels, the public cannot adequately participate in the BLM Lease Protest process, nor can BLM or other agencies comply

⁷ For example, lease parcel ES-030-09/12 LAES 057551 ACQ includes "Tract K-178 in the N2SE" of T6N, R6W, Section 22, but no explanation is provided as to what the boundaries of tract K-178 are. Lease parcel ES-018-09/12 LAES 057539 ACQ includes "part of W2NW" in Section 32, but it is not made clear which part.

⁸ See exhibits 1 & 2.

with federal legal requirements. Therefore, at minimum, BLM must postpone leasing of the parcels until the legal requirements can be met and the public is given an adequate time to review the necessary information.

B. BLM will Violate NEPA if the Parcels are Included in the Lease Sale.

NEPA requires that where an agency proposes a “major Federal action[] significantly affecting the quality of the human environment,” it must prepare an environmental impact statement (EIS) in which the agency considers the potential impacts of the proposed action on the environment and considers the impact of reasonable alternatives. *See* 42 U.S.C. § 4332(2)(C). To comply with NEPA, an EIS must provide a “full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. The agency must take a “hard look” at the environmental consequences of its proposed action. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *Strycker’s Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 231 (1980).

This analysis must be performed prior to any irreversible or irretrievable commitment of resources in order to ensure that agencies and the public are informed about the “disruptive environmental effects that may flow from their decisions at a time when they “retain [] a maximum range of options.” *Conner v. Burford*, 848 F.2d 1441, 1446 (9th Cir. 1998) *quoting* *Sierra Club v. Peterson*, 717 F.2d 1409, 1414 (D.C.Cir.1983). Leasing represents that critical stage of agency decisionmaking which results in an irreversible and irretrievable commitment of resources. *See* *Sierra Club v. Peterson*, 717 F.2d at 1414. BLM may defer a full NEPA analysis only if it disallows all surface disturbing activities by placing a “No Surface Occupancy” (NSO) stipulation on all parcels. However, without an NSO requirement, BLM relinquishes the absolute right to preclude all surface-disturbing activities by leasing a parcel. Therefore, unless the BLM proceeds to lease the contested parcels with complete NSO stipulations, a NEPA review must be undertaken before leasing.⁹

1. BLM will violate NEPA if it proceeds with leasing because a site-specific analysis has not been performed.

⁹ *See* *Southern Utah Wilderness Alliance*, IBLA No. 2000-358, 159 IBLA 220, 241 (Jun. 16, 2003) (“BLM regulations, the courts and our precedent proceed under the notion that the issuance of a lease without an NSO stipulation conveys to the lessee an interest and a right so secure that full NEPA review must be conducted prior to the decision to lease.”). *See also* *Pennaco Energy, Inc. v. U.S. Dep’t of the Interior*, 377 F.3d 1147 (10th Cir. 2004); *Conner v. Burford*, 848 F.2d 1441 (9th Cir. 1988); *Sierra Club v. Peterson*, 717 F.2d 1409 (D.C. Cir. 1983).

A site-specific environmental analysis must be performed before parcels are leased by the BLM. *See Sierra Club v. Peterson*, 717 F.2d at 1415. This is necessary to ensure that assessment of all reasonably foreseeable impacts occurs at the earliest practicable point.¹⁰

The BLM's own NEPA Handbook states that NEPA is triggered by proposals to develop subsurface minerals where, as here, BLM manages the subsurface rights and another agency manages the surface or the surface is privately held. *See BLM, National Environmental Policy Act Handbook H-1790-1* at 16 (2008). BLM may "tier" to an existing environmental analysis, if the existing analysis provides the requisite "hard look" at site-specific impacts. *See Id.* at 22. However, if BLM relies on past analyses, it must, at minimum, develop a Determination of NEPA Adequacy (DNA) which identifies the relevant documents provide this information to the public for review. *See Id.* As noted above, no such documentation has been provided.

When NRDC participated in protesting certain parcels included in the BLM Eastern States Office June 2012 Lease Sale Notice, NRDC was provided with information which indicated that maps of certain parcels may never have been created by either BLM or the Forest Service. If no such maps exist for parcels in the September 2012 Lease Sale Notice (as appeared to be the case with respect to some parcels in the June 2012 Lease Sale Notice) it is difficult to imagine how the BLM or the Forest Service could possibly have undertaken an adequate site-specific analysis.

- a. The Kisatchie National Forest Plan and EIS do not provide a site-specific analysis upon which BLM can rely to lease the Louisiana parcels.

The Kisatchie National Forest Plan and Environmental Impact Statement¹¹ do not contain a site-specific analysis of leasing the Louisiana parcels. While the EIS provides some analysis of the effects of oil and gas development, the analysis does not consider the effects of leasing the parcels at issue, but provides only a general discussion of potential impacts from oil and gas development forest-wide. This analysis does not meet the "site-specific" requirement.

In fact, the EIS specifically states at the outset of the chapter on "Environmental Consequences" that "The effects disclosed . . . are at the programmatic forest plan level. The analysis is presented for comparison and evaluation of alternatives forestwide. Future site-specific environmental analyses and decisionmaking will determine the location, design, extent, and impacts of project-level activities." *See* Kisatchie Forest Plan EIS at 4-1 (emphasis added). The EIS itself recognizes that it does not provide the requisite site-specific analysis, but that such

¹⁰ *See New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 717-20 (10th Cir. 2009) (holding that where "any environmental impacts [are] reasonably foreseeable at the leasing stage," NEPA requires an analysis of the site-specific impacts of leasing).

¹¹ U.S. Forest Service, *Revised Land and Resource Management Plan, Kisatchie National Forest* (Aug. 1999) ("Kisatchie Forest Plan"); U.S. Forest Service, *Final Environmental Impact Statement for the Revised Land and Resource Management Plan, Kisatchie National Forest* (Aug. 1999) ("Kisatchie EIS").

analysis must be performed at a later date. Therefore, BLM or the Forest Service must perform such an analysis before leasing can proceed.

Forest Service regulations also require that such a site-specific analysis be performed. Specifically, the regulations require that the Forest Service determine that “operations and development could be allowed somewhere on each proposed lease, except where stipulations will prohibit all surface occupancy.” 36 C.F.R. § 228.102. There is no evidence that such a determination was made in this case, and the lack of adequate maps and NEPA documentation call into question the Forest Service’s compliance with this regulation. BLM should not go forward with leasing until the requirements of Forest Service regulations and the National Environmental Policy Act are satisfied and a site-specific analysis has been performed.

- b. The Mississippi National Forests Plan and EIS do not provide the requisite site-specific analysis for leasing the Mississippi parcels.

The Mississippi Plan and EIS¹² do not provide a site-specific analysis on which BLM can rely to lease the parcels in Mississippi.

- i. *The Mississippi Forests Plan and EIS do not apply.*

The Mississippi Forests Plan and EIS do not analyze the effects of leasing where the surface is privately-owned. The maps, which accompany the Mississippi Plan demonstrate this fact clearly by providing an “Analysis Area Boundary” which is different from the forest proclamation boundaries shown on the maps and surrounds only those lands managed by the Forest Service. The text of the Mississippi EIS emphasizes this fact. When discussing the planning area, the EIS refers to the “land comprising the National Forests in Mississippi.” *Mississippi EIS* at 1-4. It then goes on to discuss the lands that lie within the proclamation boundaries, noting that “[a]pproximately half of the land within the Forest proclamation boundaries is private land;” while the “other half makes up the 1,140,215 acres of the National Forests in Mississippi.” *Id.* Because the Mississippi Forests Plan and EIS do not analyze the effects of leasing mineral rights under the private lands within the proclamation boundaries, they cannot fulfill any NEPA requirements with respect to the Mississippi parcels.

- ii. *The Mississippi Forests Oil and Gas Leasing EA does not apply.*

The Mississippi EIS, originally drafted in 1985, was supplemented with an Environmental Assessment related to Oil and Gas Leasing in 2010.¹³ It is clear that the scope of the Mississippi

¹² U.S. Forest Service, *Land and Resource Management Plan, National Forests in Mississippi* (Sept. 1985) (“**Mississippi Forests Plan**”); U.S. Forest Service, *Final Environmental Impact Statement, National Forests in Mississippi Land and Resource Management Plant* (Sept. 1985) (“**Mississippi EIS**”).

EA does not include private lands within the forest boundary. Under the heading “Geographic Scope,” the EA states that the area covered by the document “includes the [National Forest System] lands with Federally-owned mineral rights within the proclamation boundaries” of the Mississippi forests. *Mississippi EA* at 3. The EA then notes that “[a]pproximately 1.2 million acres of [National Forest System] lands are located within the [] proclamation boundaries” while “[t]he rest of the land, about 1.15 million acres, within the proclamation boundaries is non-Federal land, mainly private land.” *Id.* Therefore, it is clear that the EA does not apply to private lands within the proclamation boundaries of the forests, which are at issue in this instance. Because the EA does not analyze the effects of leasing the oil and gas under private lands within the proclamation boundaries, it cannot fulfill any NEPA requirements with respect to these parcels.

- iii. *Even if the Mississippi Plan, EIS, or EA were deemed to apply, they do not contain the requisite site-specific analysis.*

If the analysis in any of the Mississippi documents discussed above were held to apply to the parcels within the Mississippi forest proclamation boundaries, NEPA would still mandate the completion of a site-specific analysis before the leasing can go forward. Each of the documents at issue provides only a general discussion of the impacts of oil and gas development at the forest-wide level without considering the impacts from leasing the particular parcels at issue here. Thus, a site-specific analysis must be performed before leasing can proceed.

- c. BLM has provided no other documents which include a site-specific analysis.

BLM has furnished no other documents which could be deemed to fulfill the legal requirement for site-specific analysis. Because BLM has not provided documentation to indicate that it has fulfilled the legal requirements of the National Environmental Policy Act, we assume that no such documentation exists. However, even if it is BLM’s position that such documentation does exist, the public has not been provided with the documents nor given an opportunity to review them during the protest period. Therefore, BLM should withdraw the parcels from the September 2012 Lease Sale until such time as the legal requirements of NEPA can be fulfilled and the public is given an adequate opportunity to review the documentation indicating compliance with the law.

2. ***BLM must supplement existing NEPA documentation to take a “hard look” at the effects of unconventional oil and gas development.***

¹³ U.S. Forest Service, *Lands Available for Oil and Gas Leasing, Environmental Assessment* (Aug, 2010) (“Mississippi EA”).

NEPA requires that an agency supplement its original analysis when “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” See 40 C.F.R. § 1502.9(c)(1)(ii). “The standard for determining when [a supplemental EIS (SEIS)] is required is essentially the same as the standard for determining when an EIS is required.” *Sierra Club v. U.S. Army Corps of Eng’rs*, 295 F.3d 1209, 1215-16 (11th Cir. 2002) (quotation marks and citation omitted). A supplemental EIS must be prepared if there remains major federal action to occur, and if the new information is sufficient to show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered. *Sierra Club v. Bosworth*, 465 F. Supp. 2d 931, 937 (N.D. Cal. 2006) (citations and quotations omitted).

The agency must “take a ‘hard look’ at the new information to assess whether supplementation might be necessary.” *Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 72-73 (2004). Whether new circumstances are significant depends on a number of factors, including “[t]he degree to which the proposed action affects public health or safety,” “[u]nique characteristics of the geographic area,” such as proximity to historic or cultural resources, park lands, wild and scenic rivers, or ecologically critical areas, “[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial,” “[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks,” “[t]he degree to which the action . . . may cause loss or destruction” of significant resources, “[t]he degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act,” and “[w]hether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.” 40 C.F.R. § 1508.27(b). As is discussed below, an analysis of these factors demonstrates that supplementation under NEPA is warranted here. The emergence of commercially economical shale gas drilling is exactly the sort of new circumstance that requires supplementation under NEPA. The BLM and the Forest Service have not considered the environmental and health impacts that may arise from the drilling and hydraulic fracturing of a large number of potential new wells within the boundaries of the National Forests in Louisiana and Mississippi. A hard look at the impacts from unconventional oil and gas development and high volume hydraulic fracturing is required by NEPA before BLM proceeds with leasing these parcels.

a. Overview of the existing environmental analysis in relevant documents

As noted above, the Mississippi Forests Plan EIS, and EA do not analyze the effects of leasing the Mississippi parcels. Therefore the analysis in these documents cannot satisfy the requirements of NEPA for BLM’s proposed leasing.

The Kisatchie National Forest Plan and EIS, drafted in 1999, do apply to the parcels BLM proposes to lease in Louisiana. But while the 1999 EIS provided a brief discussion of the potential impacts of oil and gas development, this analysis did not and likely could not have anticipated the significant changes in the oil and natural gas industry that have emerged in the ensuing years. Therefore, the Kisatchie EIS does not satisfy the requirements of NEPA and must be supplemented.

The 1999 EIS briefly mentions horizontal drilling in the “Austin Chalk” formation, stating that “past drilling [in the formation]. . . had been considered less than successful until recently.” *Kisatchie EIS* at 3-107. The analysis goes on to caution that despite positive results in two wells “it is too early to predict long-term success,” noting that “a geological review of the [formation] concluded that . . . only selected ‘sweet spots’ will yield commercial production.” *Id.* At the time the plan and EIS were developed, there were 42 producing oil and gas wells on the Kisatchie National Forest. *Id.* at 3-108.

Based on the relatively low level of existing and predicted development activities, the Kisatchie National Forest Plan EIS briefly describes potential environmental impacts on air quality, soil and water quality, vegetation, wildlife, scenery, recreation, and wilderness. Overall, the EIS predicted that between 23 and 137 wells would be drilled on the forest over the subsequent 10 years, with the moderate scenario estimate being 60, for an average of 6 wells drilled per year. *Kisatchie EIS* at 3-108. BLM has provided no other documentation that analyzes the effects of oil and gas drilling on the relevant parcels.

b. Failure to analyze the effects of unconventional oil and gas development

A full analysis of unconventional oil and gas development must now be done in order to comply with NEPA. This analysis must take a hard look at the effects of unconventional oil and gas extraction techniques, especially horizontal drilling and hydraulic fracturing or “fracking”.

Hydraulic fracturing, which was not widely used in the United States until around 2005, involves the extraction of natural gas from shale formations deep below the surface, and is one of the fastest growing trends in American on-shore domestic oil and gas production.¹⁴ Large scale production of shale gas has become widespread in the past several years due to these advances in horizontal drilling and hydraulic fracturing, which have significantly improved the industry’s

¹⁴ Ground Water Protection Council and ALL Consulting, *Modern Shale Gas Development in the United States: A Primer*. Prepared for U.S. Dep’t of Energy, Office of Fossil Energy and National Energy Technology Laboratory (Apr. 2009), available at http://www.rrc.state.tx.us/does shale/Shale_Gas_Primer_2009.pdf. See also Energy Information Administration, Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays (July 2011), available at <http://www.eia.gov/analysis/studies/usshalegas/pdf/usshaleplays.pdf>; Secretary of Energy Advisory Board Shale Gas Production Subcommittee, 90-Day Report (Aug. 18, 2011), available at http://www.shalegas.energy.gov/resources/081811_90_day_report_final.pdf (noting that “it was only around 2008 that the significance of shale gas began to be widely recognized”).

ability to produce natural gas in shale basins around the country, including the Barnett, Hayesville, Fayetteville, Woodford, Utica, and Marcellus shale formations.¹⁵ In 2009, 63 billion cubic meters of gas were produced from deep shale formations. In 2012, this production doubled to 137.8 billion cubic meters, and the U.S. Energy Information Administration projects that by 2035, production will increase to 340 billion cubic meters per year.¹⁶

This process of natural gas drilling differs significantly from conventional oil and gas drilling. Fracking typically involves millions of gallons of fluid that are pumped into a well at high pressure to create fractures in shale or other rock containing hydrocarbon deposits.¹⁷ This pressure exceeds the rock strength, and the fluid enlarges fractures in the rock, allowing gas to flow from the fractures and up into the wellbore.¹⁸ Wells may extend to depths greater than 8,000 feet, and horizontal drilling may extend several thousand feet away from the location of the drill pad on the surface.¹⁹

It is now clear that unconventional oil and gas development, using horizontal drilling and hydraulic fracturing is undergoing a boom in relevant areas of Louisiana and Mississippi. *See, e.g.,* Ted Griggs, *Industry Lighting Up Third La. Oil Shale Site*, Baton Rouge Advocate, Sept. 1, 2011, at A1 (noting that companies were exploring three separate shale formations in Louisiana with unconventional drilling, including one considered the nation's "top-producing" shale play); *Series on Fracking to Begin Sunday*, McComb Enterprise-Journal (May 17, 2012) (describing the "apparent fracking boom" beginning in southwest Mississippi). *See also* exhibits 3, 4, and 5 (showing data from the Energy Information Administration, which has determined that the Texas-Louisiana-Mississippi Salt Basin, a significant shale resource, lies under all three National Forests at issue in this protest, and that specific accumulations of interest to the industry overlap parts of the Kisatchie and Homochitto National Forests).

i. *Changes to the level of reasonably foreseeable development within the forests*

The development of horizontal drilling and high-volume hydraulic fracturing have allowed economic oil and gas extraction in many areas where it was not previously feasible. In Louisiana where there was already significant development, there was a 10.4% increase in the number of

¹⁵ Robert B. Jackson *et al.*, Duke University, Research and Policy Recommendations for Hydraulic Fracturing and Shale-Gas Extraction, Center on Global Change (2011), available at <http://www.nicholas.duke.edu/cgc/HydraulicFracturingWhitepaper2011.pdf>.

¹⁶ U.S. Energy Information Administration, Annual Energy Outlook 2011 with Projections to 2035 (Dec. 2010), available at <http://www.eia.doe.gov/oiaf/aeo/electricity.html>.

¹⁷ Jackson *et al.*, *supra* note 15, at 1.

¹⁸ U.S. Env'tl. Prot. Agency, Office of Research and Development, *Hydraulic Fracturing Research Study* (June 2010), available at <http://www.epa.gov/safewater/uic/pdfs/hfresearchstudyfs.pdf>.

¹⁹ *Id.*

producing oil and gas wells from 1999-2009, while in Mississippi the increase was 61.9%.²⁰ Thus it is reasonably foreseeable that significant new drilling will occur on the parcels at issue if leasing goes forward, beyond the level of development contemplated by previous analyses. BLM must supplement existing analyses to take account of the increased number of wells likely to occur from leasing because of new techniques like horizontal drilling and hydraulic fracturing and the presence of relevant resources, like the shale basins, under the forests.

- ii. *No hard look at the impacts of unconventional oil and gas development on water resources*

Hydraulic fracturing entails the use of large quantities of water. Estimates vary depending on the size and depth of the well, but two to four million gallons of water per well is an often-used figure, and water use can be as high as five million gallons or more.²¹ In addition, wells are often “fracked” multiple times in order to maximize the resources extracted. The vast amount of water needed to drill these wells must come from somewhere, likely either from the streams and rivers of the National Forests or from local groundwater resources. Water withdrawals in other parts of the country for hydraulic fracturing have had significant effects on lakes, streams, rivers and reservoirs, impacting aquatic life and local residents.²² The lowering of water levels can also impact water quality, depleting aquifers and causing chemical changes in the water, affecting solubility and mobility; stimulating bacterial growth; and lowering surface water resources, causing changes in flow depth, velocity, and temperature and reducing the dilution effect on contaminants.²³ The BLM has provided no analysis of the local area-specific impacts of such water withdrawals on the National Forests or on the nearby communities that rely on these forests as drinking water sources, making it unclear how large volume water withdrawals may impact this region.

These huge volumes of water are mixed with large amounts of chemicals and sand and then forced under high pressure down a well in order to blow out underground seams and increase the volume of gas extracted. The volume of chemicals can differ, but for a well that uses 3 million gallons of fracturing fluids, there will potentially be up to 60,000 gallons of chemicals used.²⁴

²⁰ Data from: Energy Information Administration, *Distribution and Production of Oil and Gas Wells by State*, available at http://205.254.135.7/pub/oil_gas/petrosystem/petrosysog.html.

²¹ See U.S. Env'tl. Prot. Agency, Office of Research and Development, *Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources*, pp. 19 (Feb. 7, 2011), available at http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/HFStudyPlanDraft_SAB_020711-08.pdf. See also 2011 Draft Environmental Impact Statement for the Revised Land and Resource Management Plan, George Washington National Forest (Apr. 2011) at 3-311, available at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5297825.pdf.

²² Donald Gilliland, *The Patriot-News*, *SRBC suspends water withdrawal permits for drilling due to low stream flows* (July 19, 2011), available at http://www.pennlive.com/midstate/index.ssf/2011/07/srbc_suspends_water_withdrawal.html.

²³ See *Drinking Water Study Draft Plan*, *supra* at note 21, at 21.

²⁴ See *Id.* at 24.

These chemicals are typically stored in tanks on-site and blended with water and proppant prior to injection.²⁵ Due to a loophole in the federal Safe Drinking Water Act, the exact chemicals, amounts, and combinations are not required to be disclosed, despite reports that many of these chemicals are harmful and potentially cancer-causing. For example, the EPA has found that chronic toxicity has been associated with some identified “fracking” chemicals, such as ethylene glycol, glutaraldehyde, and n,n-dimethyl formamide.²⁶

After fracturing, the pressure is decreased and the direction of fluid flow is reversed, allowing the fracturing fluid and naturally occurring substances to return to the surface.²⁷ These returning fluids, known as *flowback* or *process* wastewater, may be highly contaminated with heavy metals, carcinogens, and naturally occurring radioactive materials.²⁸ These have been known to include brine, mercury, lead, arsenic, radium, uranium, and volatile and semi-volatile organic compounds.²⁹

This flowback water, which comprises as much as 60-80 percent of the fracturing fluid injected into the well, can be contaminated with tens of thousands of pounds of chemicals, salt, and sand, posing difficulties for disposal.³⁰ Initially, flowback fluids can amount to as much as 100,000 gallons per day for several days, which is generally stored on-site in storage tanks and waste impoundment pits prior to treatment or disposal.³¹ The lease sale stipulations do not appear to regulate the storage of these fluids. One method of disposal is to discharge water into surface waters after treatment at a wastewater treatment facility. However, flowback water can pose challenges for treatment facilities that are generally unable to remove radioactive and other harmful materials found deep underground, as well as large amounts of sodium, chloride and bromide.³² As an alternative, flowback water is sometimes disposed through land application,

²⁵ *Id.*

²⁶ *Id.* at 25.

²⁷ *Id.* at 35.

²⁸ For example, the West Virginia Department of Environmental Protection found arsenic, lead and hexavalent chromium in wastewaters. See Letter from West Virginia Department of Environmental Protection to William Goodwin, Superintendent, Clarksburg Sanitary Board (July 23, 2009). New York State’s Department of Environmental Conservation has reported levels of radium 226 in flowback water from the Marcellus Shale in amounts over 250 times the limit for safe drinking water. See N.Y. Dep’t of Env’tl. Conservation, Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program 13 (2009), available at <ftp://ftp.dec.state.ny.us/dmn/download/OGdSGEISFull.pdf>. The known carcinogen benzene has also been found in flowback waters from Pennsylvania and West Virginia at average concentrations nearly 100 times the maximum acceptable contaminant levels. *Id.* at 5-104.

²⁹ See Drinking Water Draft Plan, *supra* note 21, at 30.

³⁰ See *Hydraulic Fracturing Research Study*, *supra* note 18. See also Rebecca Hammer & Jeanne VanBriesen, *In Fracking’s Wake: New Rules are Needed to Protect Our Health and Environment from Contaminated Wastewater* (May 2012) available at <http://www.nrdc.org/energy/fracking-wastewater.asp>.

³¹ See Drinking Water Study Draft Plan, *supra* note 21, at 36.

³² See Ian Urbina, N.Y. Times, *Regulation Lax As Gas Wells’ Tainted Water Hits Rivers* (Feb. 26, 2011), at A1 (“Yet sewage treatment plant operators say they are far less capable of removing radioactive contaminants than most other toxic substances. Indeed, most of these facilities cannot remove enough of the radioactive material to meet federal drinking-water standards before discharging the wastewater into rivers, sometimes just miles upstream from drinking-water intake plants.”) It is unclear whether local wastewater treatment facilities in the vicinity of the Kisatchie, Homochitto, and Bienville National Forests have the capacity to treat flowback waters.

which involves spraying of the wastewater onto the forest floor. This method has been known to kill trees and foliage in the area, and deposit high levels of chloride, calcium and sodium in the soil.³³ Flowback water may be returned underground using a permitted underground injection well.³⁴ Research has shown that currently available methods of wastewater disposal are inadequate and that improper handling, treatment, and disposal of shale gas wastewater can expose people, fish, and wildlife to toxic, radioactive, or carcinogenic chemicals.³⁵

It is unclear what the potential impacts would be to the waters of Louisiana and Mississippi from releases of fracturing fluids or wastewater through accidental spills, land application, surface water discharges and groundwater contamination, or whether such releases could violate state and federal water quality standards. The Kisatchie EIS does briefly discuss the risk of spills, but contains no analysis of the effects on local water sources other than stating that during periods of low stream flow the material could be concentrated, while a flowing stream would allow the material “to enter a body of water fed by the stream.” *Kisatchie EIS* at 4-10. The EIS does not assess the ability of local wastewater treatment facilities to treat flowback water or analyze land application’s impacts on the parcels. Nor do the lease stipulations require disclosure of fracking chemicals, limit land application, or speak to whether flowback water can be discharged into surface waters of the National Forests or injected into underground wells.

Those fracturing fluids that remain (or are later injected) underground have the potential to impact groundwater resources. For example, there have been numerous reports from homeowners of contamination of drinking water wells in areas of extensive shale gas drilling.³⁶ These fluids also have the potential to migrate into aquifers, as appears to be the case in Pavilion, Wyoming, where EPA has made a preliminary determination that hydraulic fracturing fluids have contaminated groundwater.³⁷ Contamination of groundwater may also originate from spills or leaks of fracturing fluids at the surface.

³³ See Adams *et al.*, U.S.D.A., *Effects of Development of a Natural Gas Well and Associated Pipeline on the Natural and Scientific Resources of the Fernow Experimental Forest* (June 2010), available at http://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs76.pdf. See also Nicholas Kusnetz, ProPublica, *Anatomy of a Gas Well: What Happened When a Well Was Drilled in a National Forest* (Feb. 4, 2011), available at <http://www.propublica.org/article/anatomy-of-a-gas-well-what-happened-when-a-well-was-drilled-in-a-national-f>.

³⁴ See Hydraulic Fracturing Study, *supra* at note 19. A new study performed by scientists at the U.S. Geological Survey concluded that the increased rate of earthquakes in the mid-continental U.S. is almost certainly manmade, and potentially is linked to oil and gas extraction, particularly to deep waste disposal injection wells. See W.L. Ellsworth, US Geological Survey, *et al.*, *Abstract: Are Seismicity Rate Changes in the Midcontinent Natural or Manmade?*, to be presented at Seismological Society of America 2012 Annual Meeting, available at <http://www.seismosoc.org/meetings/2012/app/#12-137> (April 2012).

³⁵ See Hammer & VanBriesen, *supra* note 30. <http://www.nrdc.org/energy/fracking-wastewater.asp>

³⁶ See Jackson *et al.*, *supra* note 15, at 2.

³⁷ Natural Resources Defense Council, *Comments on Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program* (Dec. 31, 2009) (submitted to the New York State DEC); see also U.S. Env'tl. Prot. Agency, Office of Research and Development, *Draft Investigation of Ground Water Contamination near Pavilion, Wyoming* (2011), available at www.epa.gov/region8/superfund/wy/EPA_ReportOnPavilion_Dec-8-2011.pdf.

Gas may also migrate up through fractures in the overlying rock layers into groundwater. This shale gas is typically comprised of over 90 percent methane.³⁸ This form of methane contamination of drinking water wells is another clear and well documented potential risk of hydraulic fracturing, as demonstrated by a recent Duke University study. The study found that methane concentrations were on average 17 times higher in drinking water wells located near natural gas drilling and fracking sites in Pennsylvania and New York than in drinking water wells not located within 1 km of a gas well.³⁹ The average concentration in gas areas was high enough to be a potential explosion hazard. This migration can occur through corroded well casings, failures in the integrity of cement surrounding the casing, or even potentially through direct movement of methane or flowback water upwards from underground following hydraulic fracturing.⁴⁰ State environmental agencies also have reported incidents of drinking water contamination resulting from methane leaks from fracked gas wells.⁴¹

But the EIS and other documents provide no analysis of the potential impacts on surface or groundwater, private water wells, or other drinking water supplies. Yet the National Forests provide the source of water for many communities in or near the forests. Before leasing goes forward, the BLM must take a hard look at the environmental and health consequences of potential impacts on nearby drinking water resources, including possible contamination of aquifers, private drinking wells, groundwater and surface waters, from such drilling practices.

The re-evaluation of oil and gas development's impacts on aquatic resources is particularly critical due to the important National Forest resources that stand to be harmed by these activities. For instance, it appears that leasing on the Kisatchie National Forest is proposed in the watersheds of multiple state scenic streams, including the Kisatchie Bayou on the Kisatchie District, Fish Creek and Big Creek on the Catahoula Ranger District, and Whiskey Chitto and Six Mile Creek on the Calcasieu district. *See, e.g.*, exhibit 6, showing proposed leases that could affect Kisatchie Bayou; *see also Kisatchie EIS* at 3-8 to 3-9. It is also noteworthy that groundwater in the Kisatchie National Forest is used for municipal water supplies. *Kisatchie EIS*. at 3-12.

³⁸ *See Jackson et al., supra* note 15, at 2.

³⁹ Stephen G. Osborn, *et al.*, *Methane Contamination of Drinking Water Accompanying Gas-Well Drilling and Hydraulic Fracturing*, 108 PNAS 8172 (2011), available at <http://www.nicholas.duke.edu/cgc/pnas2011.pdf>.

⁴⁰ Pennsylvania State College of Agricultural Sciences Cooperative Extension, *Water Facts 28: Gas Well Drilling and Your Private Water Supply* at 2 (Mar. 2010), available at http://www.eesi.psu.edu/news_events/EarthTalks/2009Spring/materials2009spr/gasdrilling.pdf.

⁴¹ For example, the Pennsylvania DEP has brought a series of enforcement actions against Cabot Oil & Gas for drinking water well contamination. *See* Abraham Lustgarten, ProPublica, *Cabot Oil & Gas's Marcellus Drilling to Slow After PA Environment Officials Order Wells Closed* (Apr. 16, 2010), available at <http://www.propublica.org/article/cabotoil-and-gas-ordered-to-shut-down-problem-wells-and-pay-massive-fine-a>. *See also* Ohio Dept. of Natural Resources, Report on the Investigation of the Natural Gas Invasion of Aquifers in Bainbridge Township of Geauga County, Ohio (2008), available at http://s3.amazonaws.com/propublica/assets/natural_gas/ohio_methane_report_080901.pdf.

While the analysis in the Mississippi Oil and Gas Leasing EA cannot satisfy NEPA in this case, the EA makes clear that oil and gas development can increase sedimentation in surface waters, affect local drinking water supplies, and affect aquatic life. *See Mississippi EA* at 10.

A number of “impaired” waters could also be affected by the proposed leasing. Under the Clean Water Act, each state is required to identify and list those waters which have not met the applicable water quality standard. *See Clean Water Act § 303(d), 33 U.S.C. § 1313*. For instance, some leasing within the Catahoula Ranger District appears to be within the Little River watershed. Forty-five miles of the Little River are listed as impaired for sedimentation / siltation.⁴² This sedimentation could be exacerbated significantly by oil and gas development within the watershed.

BLM has not provided an environmental analysis of the full lifecycle of the horizontal drilling and high volume hydraulic fracturing process, from the impact on water sources from sedimentation, to the potential contamination from “fracking” fluids used to extract natural gas, to the proper treatment and disposal of these fluids at the end of the process. Therefore, without providing such an analysis, leasing of the parcels at issue violates NEPA.

iii. No hard look at the surface impacts of unconventional oil and gas development

During site preparation for a shale well, an area must be cleared to provide space for one or more wellheads, pits or tanks for holding water, used drilling fluids, and other materials; and space for trucks and other large equipment. The average size of a single high-volume hydraulic fracturing operation is significantly larger than that of a conventional drill pad. The Kisatchie EIS assumed that a total of 315 - 2,555 acres would be disturbed by well pads, roads, and pipelines over a ten-year period, with a medium estimate of 927 acres, or about 93 acres per year. *Kisatchie EIS* at 4-123 to 4-124. However, an analysis of surface impacts of unconventional wells in the Marcellus shale found that approximately 30 acres of surface disturbance could be expected for each well. This surface disturbance destroys and indirectly degrades forests and forest habitat, and this level of ground disturbance can increase sedimentation in streams, such as those discussed above, adversely affecting water quality. Because unconventional wells may lead to an average disturbance of about 30 acres, only three wells drilled each year could lead to impacts on a level approximately the same as the “moderate” estimate of 93 acres of disturbance each year in the Kisatchie EIS. Yet, the cumulative leasing in the Kisatchie National Forest could easily lead to many times the level of development that was anticipated when the Forest Plan and EIS were prepared. Unfortunately, no analysis related to the level of oil and gas activity and the associated

⁴² *See* U.S. Env'tl. Prot. Agency, Watershed Assessment, Tracking and Environmental Results, <http://www.epa.gov/waters/ir/index.html>.

surface disturbance on the lands in the Mississippi forests is available. BLM must provide such an analysis for all proposed leasing before offering these parcels.

Truck traffic associated with horizontal natural gas wells is also significantly heavier than traffic associated with conventional drilling operations. For example, the National Park Service estimates that in Marcellus Shale production areas, between 300 and 1,300 truck trips would occur per well.⁴³ Other documents have estimated that between 2,920 and 4,445 truck trips are necessary for a three well multi-well pad.⁴⁴ Narrow dirt roads may need to be widened or paved to accommodate this high volume of traffic, increasing surface impacts and stormwater runoff. Additionally, the increase in the number of truck trips required for each well also increases the risk of chemical transportation accidents.⁴⁵

Additionally, many horizontal hydraulic fracturing operations use open storage pits to hold brine and flowback. These pits can have impacts on bird and bat species, which can mistake the pits for bodies of water.⁴⁶ These pits can also impact the environment from leaks and spills. For example, in Ohio, a fracturing flowback storage pit was cut with a track hoe in 2010, causing more than 1.5 million gallons of fluid to spill into the environment.⁴⁷

There is also no substantive environmental analysis related to the potential impacts of solids disposal. The total volume of drill cuttings from drilling a horizontal well may be one-third greater than from the drilling of a conventional well.⁴⁸ This may necessitate the use of a larger reserve pit, and increase the amount of heavy metals and naturally occurring radioactive materials on the site. Prior to offering the parcels for lease, BLM or the Forest Service must supplement the NEPA analysis to consider the potential effects from all these surface impacts.

Additionally, there is no discussion of the impact of oil and gas development on areas of old growth forest. The preferred alternative in the Kisatchie EIS states that “81,000 acres of the forest will be designated and managed as old-growth forest patches” with an additional 215,000 acres containing old-growth attributes. *See Kisatchie EIS* at 2-28. However, no analysis of oil and gas development on old-growth forests is provided. (Since BLM has provided no NEPA documentation for the Mississippi parcels, there is also no analysis of the effects on old growth there.) BLM must comply with NEPA by evaluating the potential site-specific impacts of leasing individual parcels on old-growth within the forests.

⁴³ See Drinking Water Draft Plan, *supra* note 21, at 55.

⁴⁴ See George Washington DEIS, *supra* note 21, at 3-338.

⁴⁵ See Drinking Water Draft Plan, *supra* note 21, at 14.

⁴⁶ See U.S. Fish and Wildlife Service, Region 6, Env'tl. Contaminants Program, *Reserve Pit Management: Risks to Migratory Birds*, at i (2009), available at <http://westernenergyalliance.org/wp-content/uploads/2009/09/Reserve-Pits.pdf>.

⁴⁷ Ohio Dep't of Natural Resources, Notice of Violation No. 1278508985 (June 21, 2010).

⁴⁸ See N.Y. D.E.C. Draft Supplemental GEIS, *supra* note 28, at 6-63.

iv. *No hard look at the impacts of unconventional oil and gas development on recreation*

The Kisatchie EIS provides virtually no analysis of the effects of oil and gas development on recreation. The EIS states only that “Recreational settings would be disturbed through increased activity, noise, and use of heavy equipment associated with minerals activities. Recreation use of active mineral extraction sites would be temporarily eliminated.” *Kisatchie EIS* at 4-70. The EIS also states that No Surface Occupancy stipulations are required in “developed recreation areas,” but provides no other analysis. *See Kisatchie EIS* at 3-108.

A site-specific analysis of the effects of leasing is crucial in this case, because it appears that oil and gas leasing could have very significant impacts on recreational uses of the Kisatchie National Forest. For instance it appears that many of the parcels for lease in Grant Parish, Township 6 North, Range 1 East, contain hiking trails. *See* exhibit 7. Due to the small size of these parcels, development on a parcel would have to occur in close proximity to these trails. A site-specific analysis is designed to anticipate these conflicts and to allow the BLM and Forest Service to make an informed decision regarding leasing. Unfortunately, no such analysis appears to have been undertaken.

No analysis was provided of the effects of leasing the Mississippi parcels on recreational opportunities. While the leasing itself is on private surface, BLM is not excused from its obligations to analyze the effects under NEPA. Leasing of the private tracts within the forest boundaries could have significant effects on recreation within the Mississippi forests via noise and light pollution from 24-hour drilling operations, air emissions from truck traffic, drilling equipment and the wells themselves, and the closures of certain areas of the forest near drilling activity.

BLM must provide a site-specific analysis of the effects of leasing on recreational opportunities before proceeding with leasing.

v. *No hard look at the impacts of unconventional oil and gas development on human health*

Oil and gas drilling and hydraulic fracturing have the potential to affect human health in multiple ways. Potential impacts to drinking water supplies, discussed above, could lead to exposure to toxic substances. Additionally, air emissions from natural gas development have been found at levels that pose increased risks of cancer and other health threats to those living near gas wells.⁴⁹ Noise and light produced by round-the-clock drilling operations also have the potential to affect

⁴⁹ *See, e.g.,* Lisa M. McKenzie et al., *Human Health Risk Assessment of Air Emissions from Development of Unconventional Natural Gas Resources* (2012) available at <http://www.ncbi.nlm.nih.gov/pubmed/22444058>.

health, potentially contributing to hypertension, psychological symptoms, loss of sleep, and fatigue.⁵⁰

A number of parcels proposed for lease would allow for oil and gas development to be in extremely close proximity to homes and other structures. For instance, lease ES-056-09/12 MSES 057577 ACQ would lease a very small 4.0 acre parcel consisting of the land under the New Good Hope Church, its parsonage, and cemetery. *See* exhibit 8. Other parcels in the sale also appear to pose similar risks, allowing drilling in close proximity to structures which appear to be people's homes.

BLM has provided no analysis of the potential impacts to human health from oil and gas drilling and hydraulic fracturing. Such an analysis is legally required before leasing the parcels can proceed.

- vi. *No hard look at the impacts of unconventional oil and gas development on wildlife, including threatened and endangered species*

Oil and gas drilling operations can impact wildlife by killing and harming animals that cannot leave habitats affected by construction of access roads, clearing and leveling of drill pad sites, or construction of pipelines and facilities. As noted by the Kisatchie EIS, “[p]ermanent loss of habitat and isolation due to habitat fragmentation” can also occur. Wildlife and their habitat will be affected to a greater extent because of the increased footprint of high volume drilling operations compared to conventional drilling and the greater interest in oil and gas development. There are also potential adverse impacts from the creation of forest edge from construction activities, with research demonstrating that measurable impacts often extend at least 330 feet into the forest area adjacent to the edge.⁵¹

Multiple threatened and endangered species could also be impacted by development of the parcels. The Kisatchie National Forest is home to the endangered Red-cockaded Woodpecker, as well as threatened species including the Louisiana black bear, and the Louisiana pearlshell mussel, as well as a threatened plant, the earth fruit.⁵² According to the 1985 Mississippi Forest Plan EIS, the National Forests in Mississippi are home to the red-cockaded woodpecker, and the endangered Mississippi sandhill crane. *See Mississippi EIS* at 3-22. Unfortunately, it is not clear from the information given which forests these species occur on.

Analysis of the effects on the critical habitat of listed species must also be performed. For instance, the Leaf River and its tributaries occur near leases on the Bienville National Forest.

⁵⁰ *See* Colorado School of Public Health, *Battlement Mesa Health Impact Assessment*, Draft 2 at 52-54 available at <http://www.garfield-county.com/environmental-health/battlement-mesa-health-impact-assessment-draft2.aspx>.

⁵¹ *See* Neal Johnson *et al.*, The Nature Conservancy, *Pennsylvania Energy Impacts Assessment, Report 1: Marcellus Shale Natural Gas and Wind* (Nov. 15, 2010) at 10, available at http://www.nature.org/media/pa/tnc_energy_analysis.pdf.

⁵² *See* U.S. Forest Service, *Kisatchie National Forest Plan Amendment #9: Prohibiting Dog Deer Hunting, Appendix C* (May 2012).

And portions of the Leaf River downstream of the Bienville NF have been designated critical habitat for the gulf sturgeon. *See* exhibit 9.

The existing analysis does not fulfill the requirements of NEPA to assess the impacts of oil and gas leasing on wildlife, including threatened and endangered species, or its habitat. Site-specific analysis is necessary to understand these effects before leasing proceeds.

- vii. *No hard look at the impacts of unconventional oil and gas development on wilderness*

BLM has provided no analysis of the potential effects of leasing on wilderness within the forests. The Kisatchie Hills Wilderness is the only wilderness area within the National Forests of Louisiana. The Kisatchie Hills Wilderness was designated for protection by Congress in 1980. *See* Pub.L. 96- 560, Title II, § 201(i), 94 Stat. 3273 (Dec. 22, 1980). The Wilderness Act requires that wilderness be managed so as to maintain areas “where the earth and its community of life are untrammelled by man” and which “retain[s]its primeval character and influence.” *See* 16 U.S.C. § 1131.

BLM proposes leasing a number of parcels adjacent to the Kisatchie Hills Wilderness. *See* exhibit 10. Yet no analysis of the effects of oil and gas drilling on the character of the wilderness has been performed. Unconventional development often involves round-the-clock drilling, utilizing extremely large rigs capable of directional drilling. Floodlights may be used throughout the night and the noise of heavy machinery can persist 24-hours a day. After drilling is complete, certain gasses may be flared, causing heat, noise, and light pollution. Other times, gasses are vented, contributing to air pollution. All of these activities are likely to affect the extent to which a visitor to the wilderness experiences an environment untrammelled by man and retaining a primeval character or continues to see, hear, and smell industrial oil and gas development bordering the wilderness area. Additionally, development adjacent to the wilderness may affect wildlife living in the area, and water and air quality in the wilderness area. To comply with NEPA, BLM must provide an assessment of these effects on the wilderness before proceeding to lease the contested parcels.

C. Leasing of the Parcels in the Kisatchie National Forest Would Conflict with the Kisatchie National Forest Plan, a Violation of the National Forest Management Act.

The Forest Service and BLM will violate the National Forest Management Act (NFMA) if they offer the parcels in Louisiana for sale. Under the NFMA, the Forest Service’s land management plans must achieve several goals, including: (1) insuring consideration of the economic and environmental aspects of renewable resource management, “including the related systems of

silviculture and protection of forest resources, to provide for outdoor recreation (including wilderness), range, timber, watershed, wildlife, and fish”; (2) providing for diversity of plant and animal communities; and (3) insuring research on and evaluation of the effects of each management system to ensure that it will not produce substantial and permanent impairment of the productivity of the land, among other goals. 16 U.S.C. § 1604(g). In addition, NFMA requires that “[r]esource plans and permits, contracts and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans.” 16 U.S.C. § 1604(i).

Essentially, this means that the Forest Service, in its Plan, must provide for certain resources such as outdoor recreation, watershed integrity, fish and wildlife, plant and animal diversity, and soil productivity, and all oil and gas development activities must be consistent with the Forest Plan. *See Northwoods Wilderness Recovery, Inc. v. U.S. Forest Service*, 323 F.3d 405, 407 (6th Cir. 2003) (“Implementation of the forest plan is achieved through individual site-specific projects, and all projects must be consistent with the forest plan.”); *see also Cherokee Forest Voices v. U.S. Forest Service*, 2006 U.S. App. LEXIS 13214 at *11-12 (6th Cir. May 25, 2006); *Sierra Club v. Martin*, 168 F.3d 1, 4-5 (11th Cir. 1999); *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1068 (9th Cir. 1998); *National Audubon Soc’y v. Hoffman*, 132 F.3d 7, 19 (2nd Cir. 1997).

Both the Forest Service and BLM then have a duty to ensure that the amount of drilling permitted by this lease sale does not conflict with the varying objectives set forth in the Forest Plan. This the agencies have not done. Rather, the leasing appears to violate the NFMA by placing oil and gas development above other management prescriptions and other natural resources and by failing to ensure that lease stipulations for oil and gas development activities are sufficient to enforce all applicable Forest Plan standards.

As just one example, the Kisatchie National Forest Plan states that the desired future condition of the Kisatchie Hills Wilderness is to be “open in aspect, typically with long scenic vistas [] broken only by hardwood-lined slopes and creeks.” *See Kisatchie Plan* at 3-48. Yet BLM proposes to lease most of the area directly adjacent to the Kisatchie Hills Wilderness in this lease sale. However, large drill rigs can rise to 160 feet above the ground’s surface, meaning that such rigs can be seen from significant distances.⁵³

It should be noted that the Forest Service is required by its own regulations to determine that “operations and development could be allowed somewhere on each proposed lease” for any lease offered without a No Surface Occupancy stipulation. *See* 36 CFR § 228.102 (e). Given the wide

⁵³ See U.S. Forest Service, *Specialist Report 1.0 Visual Resources, Oil and Gas Leasing EIS on Lands Administered by the Dixie National Forest* 17 available at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5210565.pdf.

range of potential impacts from unconventional oil and gas development and their potential to frustrate other forest management goals, it is essential that a site-specific analysis be performed. Otherwise, the Forest Service cannot ensure that development could go forward on each parcel, consistent with the forest plan.

The lack of maps for all parcels in the lease sale also prevents the Forest Service and BLM from fulfilling their legal obligations to ensure that leasing on the forest is consistent with the Forest Plan. If neither the BLM nor the Forest Service has created maps of the parcels in the Kisatchie National Forest, the agencies cannot determine exactly what effects leasing might have. They also cannot adequately evaluate whether forest resources or other uses of the forest may be affected. Nor can BLM and the Forest Service ensure that leasing is consistent with the forest management plan, as required by NFMA.

D. BLM has Not Provided Documentation of Compliance with an Applicable Resource Management Plan, in Violation of the Federal Land Policy and Management Act

FLPMA requires that BLM develop Resource Management Plans (“RMP”) for lands and minerals it manages. *See* 43 U.S.C. § 1712 (“The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and, when appropriate, revise land use plans . . .”). Federal law and BLM’s regulations prohibit agency action that is inconsistent with the RMP. 43 U.S.C. § 1732(a) (mandating that the Secretary “shall manage the public lands . . . in accordance with the land use plans”); 43 C.F.R. § 1610.5-3(a) (“resource management authorizations and actions” must conform to the applicable resource management plan). *See also Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 69 (2004) (“The statutory directive that BLM manage ‘in accordance with’ land use plans, and the regulatory requirement that authorizations and actions ‘conform to’ those plans, prevent BLM from taking actions inconsistent with the provisions of a land use plan.”).

BLM’s NEPA Handbook states that “the BLM includes within all its NEPA documents a statement about the conformance of the proposed action and alternatives with the existing land use plan (LUP).” *See* BLM, *National Environmental Policy Act Handbook H-1790-1* at 6 (2008). Yet, BLM has not done so in this case. BLM has not met even the first step of its legal obligations. The agency has not identified an applicable resource management plan for the minerals it proposes to lease. Without such plan, BLM cannot meet its obligation under FLPMA to ensure compliance with its land use plans. BLM must withdraw the leases from the sale, ensure that future leasing is consistent with any existing RMP, and provide documentation to the public of such

consistency before proposing further leasing.⁵⁴ In the event that no applicable RMP exists, BLM must complete one before proceeding with leasing.

E. BLM and the Forest Service Will Violate The ESA If They Offer These Parcels For Sale.

BLM and the Forest Service must consult with the U.S. Fish and Wildlife Service (“FWS”) on the impacts to listed species and critical habitat from oil and gas development prior to issuing oil and gas leases. As noted in section II (B)(2)(b)(vi), above, threatened and endangered species and their critical habitat may be impacted by oil and gas activities on the forest. Some of these impacts, such as surface disturbance, noise, and erosion and sedimentation of waterways are likely to be difficult or impossible to avoid. Oil and gas leasing and development seem likely to adversely affect a number of listed species, particularly the Red-Cockaded Woodpecker and aquatic species, and to adversely modify designated critical habitat in or downstream from the lease parcels, as discussed above.

The ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service regarding the impacts of proposed federal actions on threatened and endangered species. 16 U.S.C. § 1536(a)(2). Agencies, in consultation with FWS, must insure that their actions are not likely to jeopardize the existence of listed species or to destroy or adversely modify any designated critical habitat. *Id.* Further, ESA’s implementing regulations mandate that “[e]ach federal agency shall review its actions at the *earliest possible time*” to determine whether an action may affect protected species and, if so, to engage in the appropriate consultation. 50 C.F.R. § 402.14(a) (emphasis added); *see also Wilderness Soc’y v. Wisely*, 524 F. Supp. 2d 1285, 1301 (D. Colo. 2007) (“[T]he BLM’s duty to confer with the FWS arises as of the time that it was possible for the two agencies to engage in meaningful conference regarding the decision to be made”). If a proposed action “may affect listed species or critical habitat,” then the agency must formally consult with FWS, unless, as a result of informal consultation, the agency determines that the action “is not likely to adversely affect listed species or critical habitat,” and the FWS concurs in writing. 50 C.F.R. §§ 402.13(a), 402.14(a)-(b).

In addition, the ESA’s regulations mandate that federal agencies reinitiate consultation when a new species is listed or critical habitat is designated and those agencies’ actions may affect it. *See* 50 C.F.R. § 402.16(d). Further, these regulations also mandate that federal agencies reinitiate consultation when “new information reveals effects that may affect listed species or critical habitat in a manner or to an extent not previously considered.” *Id.* at 402.16(b).

⁵⁴ Protesting parties reserve the right to challenge any such consistency determination at the time that it is made or that documentation of such a decision is provided. NRDC contacted the BLM Southeastern States Field Office in order to obtain copies of any applicable RMP and accompanying EIS and has received no response.

Contrary to this requirement, there is no indication that either the Forest Service or BLM have consulted with FWS on this lease sale. Consultation on the Forest Plan is not adequate to cover this lease sale. First, new information regarding the extent and type of drilling here require the initiation of consultation prior to any lease sale. Second, the consultation on the Forest Plan did not consider the site-specific impacts of leasing and gas development here. Third, the BLM must determine whether new listings or critical habitat designations have been made that would be affected by leasing. Fourth, such leasing and gas development here obviously are likely to adversely affect listed species and critical habitat, necessitating *formal consultation* prior to the sale of any leases. To the parties' knowledge, formal consultation has never occurred. To the extent that the agencies may contemplate delaying any further consultation until *after* the parcels have already been auctioned off at the lease sale, this would be impermissible, because NEPA analysis and ESA consultation must occur *prior* to the irrevocable commitment of the sale of those leases. The Forest Service and BLM must consult with the Fish and Wildlife Service over impacts to listed species and critical habitat prior to issuing leases. Their failure to initiate consultation violates the ESA.

F. BLM will Violate the Clean Water Act if it Proceeds with Leasing.

The Clean Water Act prohibits federal agencies from taking action that contributes to violations of state water quality standards. *See* 33 U.S.C. § 1323(a). As indicated above, several of the leases proposed for sale are within the watersheds of impaired water bodies. These impaired water bodies have already exceeded water quality standards. At least one, the Little River, exceeds the water quality standard for sedimentation/ siltation – a pollutant discharged from the road construction and other surface disturbance resulting from oil and gas drilling. Given that BLM conveys the right to drill somewhere on each of the protested parcels with the lease sale, BLM must ensure before leasing that steps are in place to prevent the discharge of sediment and other pollutants into water bodies already impaired by these pollutants. BLM has failed to do so in this case.

In addition, the Clean Water Act prohibits degradation of the waters of the United States. 33 U.S.C. §1251(a). The purpose of the CWA is not only to restore polluted waters, but also to “maintain the chemical, physical, and biological integrity of the Nation’s waters.” *Id.* To serve this purpose, EPA has promulgated anti-degradation regulations. 40 C.F.R. §131.12.

EPA’s antidegradation regulations require that states adopt and implement a policy that prohibits the reduction of water quality except in limited circumstances and after the public has had a say in the decision. The federal regulation specifies minimum requirements that a state’s antidegradation policy must contain. First, for all waters, “existing . . . uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” 40 C.F.R. §131.12(a)(1). Second, for high quality waters (those that surpass state water quality

standards), EPA's regulation prohibits a reduction in water quality unless "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 C.F.R. §131.12(a)(2).⁵⁵ The state must find that the reduction is necessary after "full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process." *Id.* Third, for certain waters constituting outstanding national resources, a reduction in water quality is prohibited under all circumstances. 40 C.F.R. §131.12(a)(3). Here, BLM has failed to ensure compliance with Louisiana and Mississippi's anti-degradation policies.

III. REQUEST FOR RELIEF

The protesting parties request that BLM withdraw the protested parcels from the September 2012 Competitive Oil and Gas Lease Sale until such time as BLM and the Forest Service have complied with federal laws and regulations, including NEPA, FOOGLRA, FLPMA, NFMA, ESA, and the Clean Water Act. In conducting its NEPA supplementation, BLM and the Forest Service should consider whether sensitive parcels may be inappropriate for oil and gas development due to the presence of nearby wilderness, aquatic resources, listed or sensitive species, important recreational features, or other characteristics. The protesting parties further request that BLM suspend the offering of the parcels while the agency considers this protest.

Thank you for your consideration of this protest letter. For your records, the names and contact information for each of the protesting parties NRDC is representing (in addition to itself) are:

Atchafalaya Basinkeeper
Dean Wilson, Executive Director
162 Croydon Ave.
Baton Rouge, La 70864
225-692-4114

Gulf Restoration Network (GRN)
Cynthia Sarthou, Executive Director
338 Barone Street, Suite 200
New Orleans, LA 70112
504-525-1528

Louisiana Audubon Council
Barry Kohl, President
1522 Lowerline St.
New Orleans, La 70118
504-861-8465

Louisiana Environmental Action Network
Marylee M. Orr, Executive Director
P.O. Box 66323
Baton Rouge, LA 70896
225-928-1315

Lower Mississippi Riverkeeper
Paul Orr, Director

Ouachita Riverkeeper
Cheryl Slavant, Director

⁵⁵ As EPA itself has said, the antidegradation protection for high-quality waters "is intended to provide relief in only a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for 'fishable/swimmable' water, and both cannot be achieved." USEPA, Water Quality Standards Handbook: Second Edition (August 1994), at 4-7 (emphasis added).

P.O. Box 66323
Baton Rouge, LA 70896
225-928-1315

2610 Washington Street
Monroe, La. 71201
318-381-0996

Rapides Wildlife Association
Richard Bryan, Past President
2405 Evergreen
Pineville, LA 71360
318-640-0198

Sierra Club, Delta Chapter
Haywood Martin, Chair
P.O. Box 52503
Lafayette, LA 70505
337-232-7953

Wild South
Ben Prater, Associate Director
16 Eagle Street, Suite 200
Asheville, NC 28801
828-258-2667

Should you have any questions, please contact Matthew McFeeley or Sharon Buccino at the Natural Resources Defense Council.

Sincerely,



Matthew McFeeley
Legal Fellow
Natural Resources Defense Council
Tel: (202) 513-6250



Sharon Buccino
Senior Attorney & Director, Land and Wildlife Program
Natural Resources Defense Council
Tel: (202) 289-6868

cc: Elizabeth Agpaoa, Regional Forester, U.S. Forest Service Southern Region
Michael Balboni, Kisatchie National Forest Supervisor
Margrett Boley, Mississippi National Forests Supervisor

Exhibit List

- Exhibit 1- NRDC Letter dated June 29, 2012 to Dr. John Lyon, Eastern States Office Director, BLM, regarding the September 13, 2012 Competitive Oil and Gas Lease Sale.
- Exhibit 2- NRDC Letter dated July 9, 2012 to Dr. John Lyon, Eastern States Office Director, BLM, regarding the September 13, 2012 Competitive Oil and Gas Lease Sale.
- Exhibit 3- NRDC map: Shale Resources in the Kisatchie National Forest.
- Exhibit 4- NRDC map: Shale Resources in the Bienville National Forest.
- Exhibit 5- NRDC map: Shale Resources in the Homochitto National Forest.
- Exhibit 6- NRDC map: September 13, 2012 BLM-ES Oil and Gas Lease Sale, Kisatchie National Forest, LA: Kisatchie Bayou area.
- Exhibit 7- NRDC map: September 13, 2012 BLM-ES Oil and Gas Lease Sale, Kisatchie National Forest, LA: Livingston trails area.
- Exhibit 8- NRDC aerial map: September 13, 2012 BLM-ES Oil and Gas Lease Sale, Bienville National Forest, MS: New Good Hope Church area.
- Exhibit 9- NRDC map: September 13, 2012 BLM-ES Oil and Gas Lease Sale, Bienville National Forest, MS: Leaf River area.
- Exhibit 10- NRDC map: September 13, 2012 BLM-ES Oil and Gas Lease Sale, Kisatchie National Forest, LA: Kisatchie Hills Wilderness area.

Exhibit 1



NATURAL RESOURCES DEFENSE COUNCIL

June 29, 2012

Dr. John Lyon
Eastern States Office Director
Bureau of Land Management
7450 Boston Boulevard
Springfield, VA 22153

Re: September 13, 2012 Competitive Oil and Gas Lease Sale

Dear Dr. Lyon,

Thank you for your decision to postpone the leasing in the Alabama National Forests proposed in the June 2012 lease sale. We appreciate your providing additional opportunity for public input concerning that leasing.

As you know, we have an ongoing interest in any leasing in national forests proposed by the Bureau of Land Management (BLM) Eastern States Office. In the notice for the September 13, 2012 lease sale, the BLM has proposed to lease further lands in National Forests. We write to request that you provide all National Environmental Policy Act (NEPA) documentation, or otherwise point us to those documents online, upon which the BLM Eastern States Office relied in making its determination to include those leases in the September 2012 lease sale, including any Determinations of NEPA Adequacy. Note that BLM policies require that each sale notice must contain a link to the NEPA documentation for that sale, and we request that BLM Eastern States Office provide such a link from the sale notice in the future.¹

In addition, please provide maps of all parcels proposed for lease, along with all leases already issued in the general area, in compliance with the Federal Onshore Oil and Gas Leasing Reform Act (FOOGLRA).² To facilitate an understanding of the impacted resources, we ask that Geographic Information Systems (GIS) data of current and proposed leasing be provided,

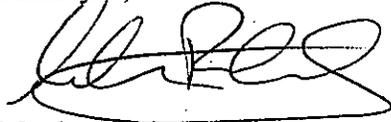
¹ See Instruction Memorandum No. 2010-117 *Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews* part III.G (5/17/2010) available at http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2010/IM_2010-117.html.

² See 30 U.S.C. § 226(f).

along with the maps. The maps which accompany the September 2012 lease sale notice appear to encompass the parcels the BLM proposes to lease. However, these maps do not demonstrate whether and where land in the general area is already under lease. Nor do they provide boundaries of the individual lease parcels, making it impossible to precisely determine the exact locations and borders of proposed parcels in some cases. Without this essential information, the public is unable to determine the environmental and other impacts of the proposed leasing. Boundaries of lease parcels help the public understand potential development and its impacts to recreation areas, wildlands, wildlife habitat, water sources, and other important resources in these forests. To fulfill the requirements and the spirit of NEPA and FOOGLRA, this information should be provided to the public.

We request that the maps and NEPA documentation be provided, as noted above. If they are not available for the public to review, the BLM Eastern States Office should postpone leasing of all parcels until such time as these legal requirements can be fulfilled.

Thank you,

A handwritten signature in black ink, appearing to read 'Matthew McFeeley', written over a horizontal line.

Matthew McFeeley
Legal Fellow

Exhibit 2



NATURAL RESOURCES DEFENSE COUNCIL

July 9, 2012

Dr. John Lyon
Eastern States Office Director
Bureau of Land Management
7450 Boston Boulevard
Springfield, VA 22153

Re: September 13, 2012 Competitive Oil and Gas Lease Sale

Dear Dr. Lyon,

This letter is to follow up on NRDC's request of June 29th, 2012 that the Bureau of Land Management (BLM) Eastern States office provide maps and National Environmental Policy Act (NEPA) documentation related to parcels in National Forests included in the notice of the September 2012 lease sale.¹ To avoid any confusion, please note that the request for maps and NEPA documentation should be taken to include all parcels within National Forest boundaries. A complete list of the relevant parcels is provided, for your convenience, at the conclusion of this letter.³

As you know, the Lease Sale Notice provides the public with 30 days to evaluate the BLM's determination to lease certain lands and to consider whether to file a formal protest. The protest deadline for the September 2012 sale is July 19th, 2012. Maps of the proposed parcels and documentation of compliance with the National Environmental Policy Act are essential to inform the public's review during this period. As noted by our letter of June 29, 2012, federal law and BLM policies also require that this information be made available.²

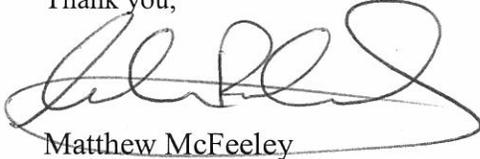
Because of the short time remaining before the protest deadline, I ask that you provide an update as soon as possible regarding the status of our request. Additionally, if BLM Eastern States will

¹ See *Notice of Competitive Oil and Gas Lease Sale, September 13, 2012* available at http://www.blm.gov/es/st/en/prog/minerals/current_sales_and.html.

² The Federal Onshore Oil and Gas Leasing Reform Act mandates that maps be provided which "show the location of all tracts to be leased, and of all leases already issued in the general area." 30 U.S.C. § 226 (f). BLM policies require that NEPA documentation be linked from each oil and gas lease sale notice. See Instruction Memorandum No. 2010-117 *Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews* part III.G (5/17/2010).

not be able to provide the maps and NEPA documentation NRDC has requested by Friday, July 13, 2012, we ask that you extend the current protest deadline to allow the public adequate time to review this information, once it is made available.

Thank you,



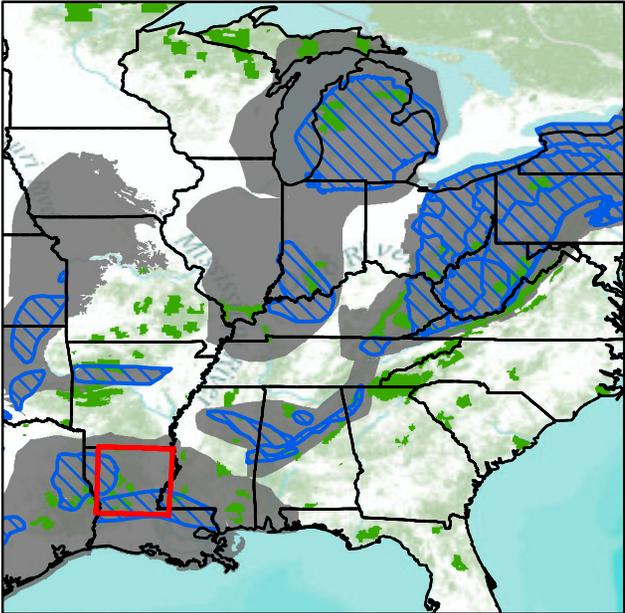
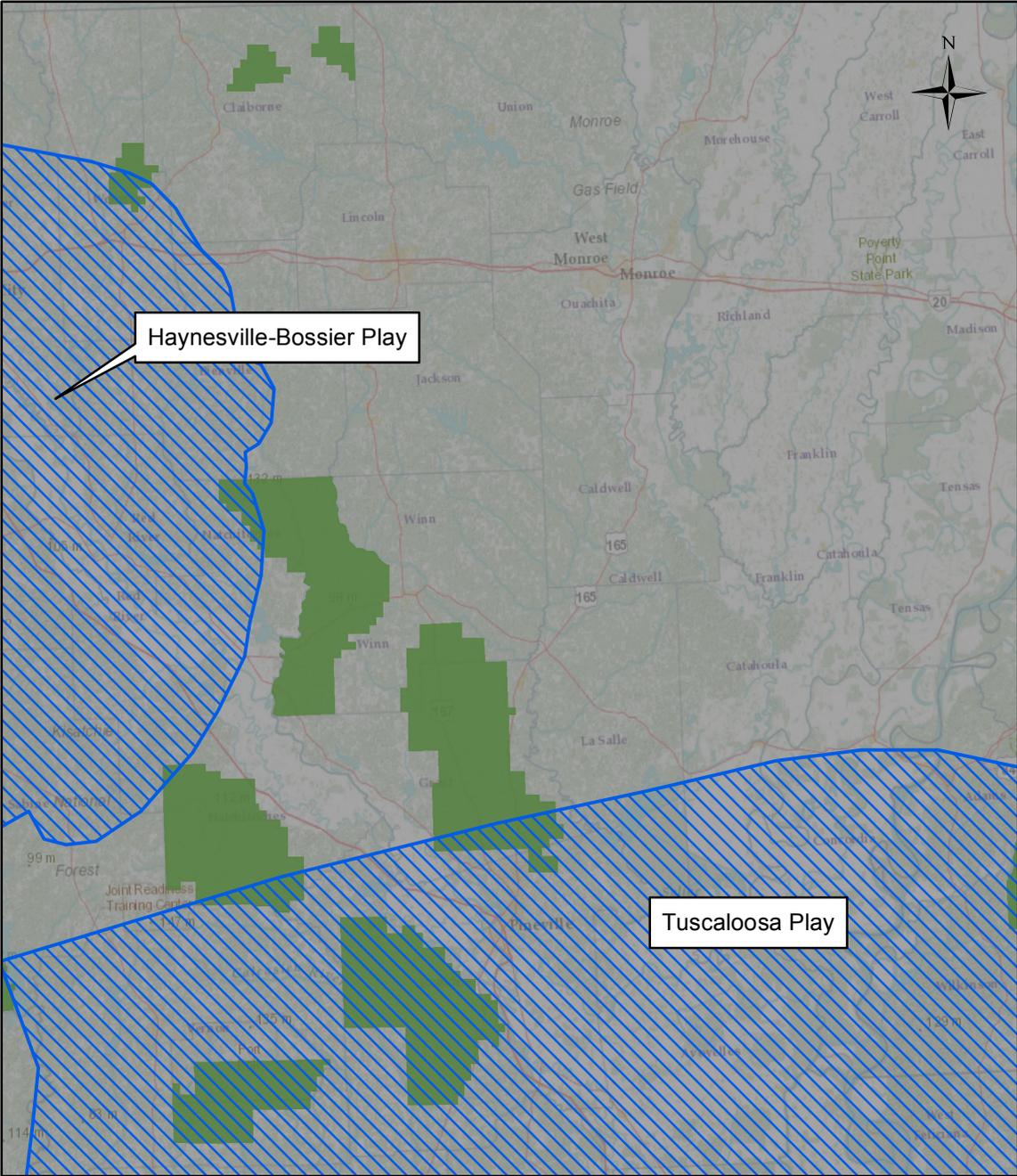
Matthew McFeeley
Legal Fellow

cc: Larry Denny, Deputy State Director, Division of Natural Resources

³ The parcels covered by the June 29, 2012 request are: ES-001-09/12 LAES 057522 ACQ, ES-002-09/12 LAES 057523 ACQ, ES-003-09/12 LAES 057524 ACQ, ES-004-09/12 LAES 057525 ACQ, ES-005-09/12 LAES 057526 ACQ, ES-006-09/12 LAES 057527 ACQ, ES-007-09/12 LAES 057528 ACQ, ES-008-09/12 LAES 057529 ACQ, ES-009-09/12 LAES 057530 ACQ, ES-010-09/12 LAES 057531 ACQ, ES-011-09/12 LAES 057532 ACQ, ES-012-09/12 LAES 057533 ACQ, ES-013-09/12 LAES 057534 ACQ, ES-014-09/12 LAES 057535 ACQ, ES-015-09/12 LAES 057536 ACQ, ES-016-09/12 LAES 057537 ACQ, ES-017-09/12 LAES 057538 ACQ, ES-018-09/12 LAES 057539 ACQ, ES-019-09/12 LAES 057540 ACQ, ES-020-09/12 LAES 057541 ACQ, ES-021-09/12 LAES 057542 ACQ, ES-022-09/12 LAES 057543 ACQ, ES-023-09/12 LAES 057544 ACQ, ES-024-09/12 LAES 057545 ACQ, ES-025-09/12 LAES 057546 ACQ, ES-026-09/12 LAES 057547 ACQ, ES-027-09/12 LAES 057548 ACQ, ES-028-09/12 LAES 057549 ACQ, ES-029-09/12 LAES 057550 ACQ, ES-030-09/12 LAES 057551 ACQ, ES-031-09/12 LAES 057552 ACQ, ES-032-09/12 LAES 057553 ACQ, ES-033-09/12 LAES 057554 ACQ, ES-034-09/12 LAES 057555 ACQ, ES-035-09/12 LAES 057556 ACQ, ES-036-09/12 LAES 057557 ACQ, ES-037-09/12 LAES 057558 ACQ, ES-038-09/12 LAES 057559 ACQ, ES-039-09/12 LAES 057560 ACQ, ES-040-09/12 LAES 057561 ACQ, ES-041-09/12 LAES 057562 ACQ, ES-042-09/12 LAES 057563 ACQ, ES-043-09/12 LAES 057564 ACQ, ES-044-09/12 LAES 057565 ACQ, ES-045-09/12 LAES 057566 ACQ, ES-046-09/12 LAES 057567 ACQ, ES-047-09/12 LAES 057568 ACQ, ES-048-09/12 LAES 057569 ACQ, ES-049-09/12 LAES 057570 ACQ, ES-050-09/12 LAES 057571 ACQ, ES-051-09/12 LAES 057572 ACQ, ES-052-09/12 LAES 057573 ACQ, ES-053-09/12 LAES 057574 ACQ, ES-054-09/12 LAES 057575 ACQ, ES-055-09/12 MSES 057576 PD, ES-056-09/12 MSES 057577 ACQ, ES-057-09/12 MSES 057578 ACQ, ES-058-09/12 MSES 057579 ACQ, ES-059-09/12 MSES 057580 ACQ, ES-060-09/12 MSES 057581 ACQ, ES-061-09/12 MSES 057582 ACQ, ES-062-09/12 MSES 057583 ACQ, ES-063-09/12 MSES 057584 ACQ, ES-064-09/12 MSES 057585 ACQ, ES-065-09/12 MSES 057586 ACQ, ES-066-09/12 MSES 057587 ACQ.

Exhibit 3

Shale Resources in the Kisatchie National Forest



Legend

-  Shale Plays
-  Shale Basins
-  National Forest

Data from U.S. Energy Information Administration (EIA)

* Entire area of inset map is within the TX-LA-MS Salt Basin

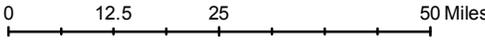
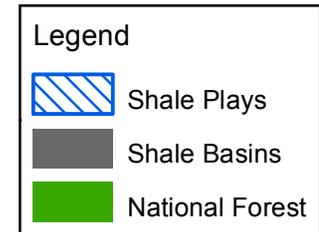
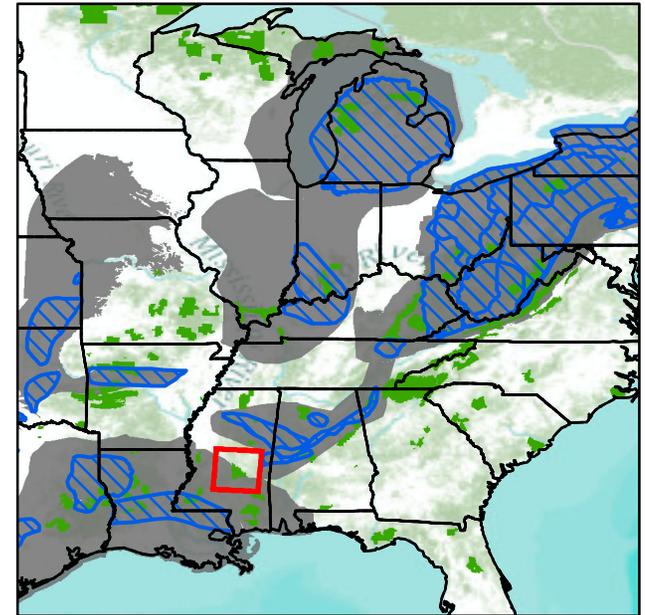
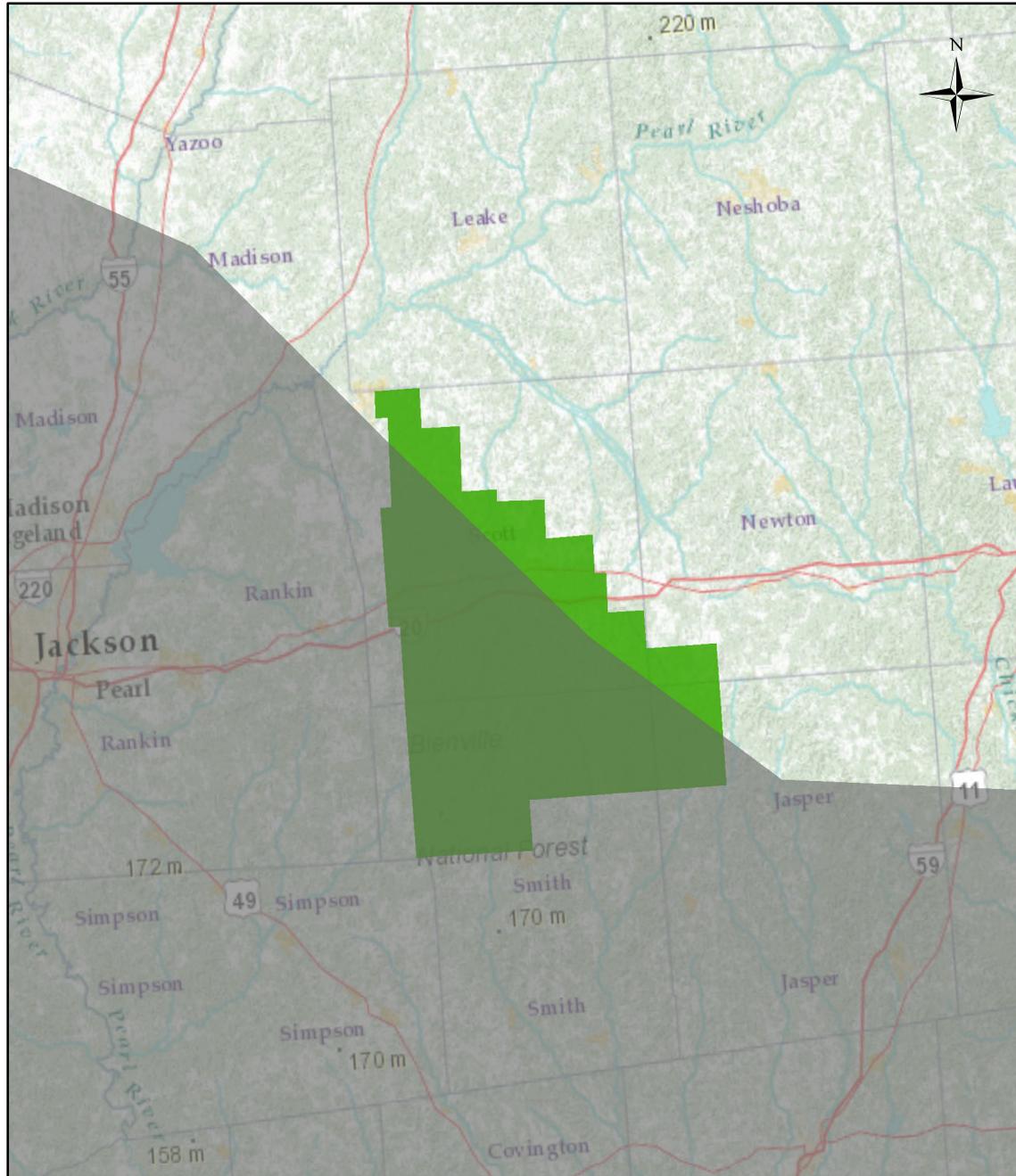


Exhibit 4

Shale Resources in the Bienville National Forest



Data from U.S. Energy Information Administration (EIA)



NATURAL RESOURCES DEFENSE COUNCIL
THE EARTH'S BEST DEFENSE

* Grey portion of inset map represents the TX-LA-MS Salt Basin

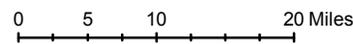
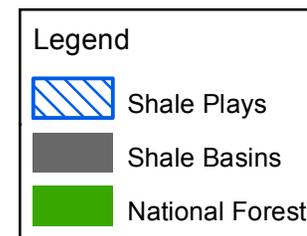
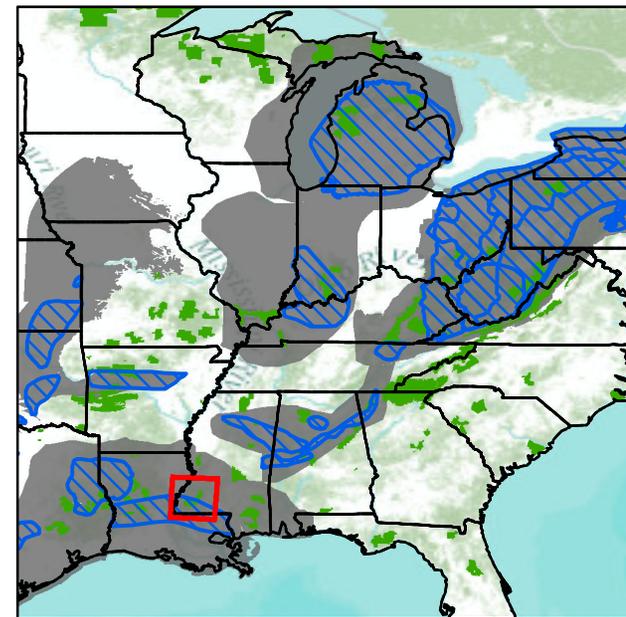
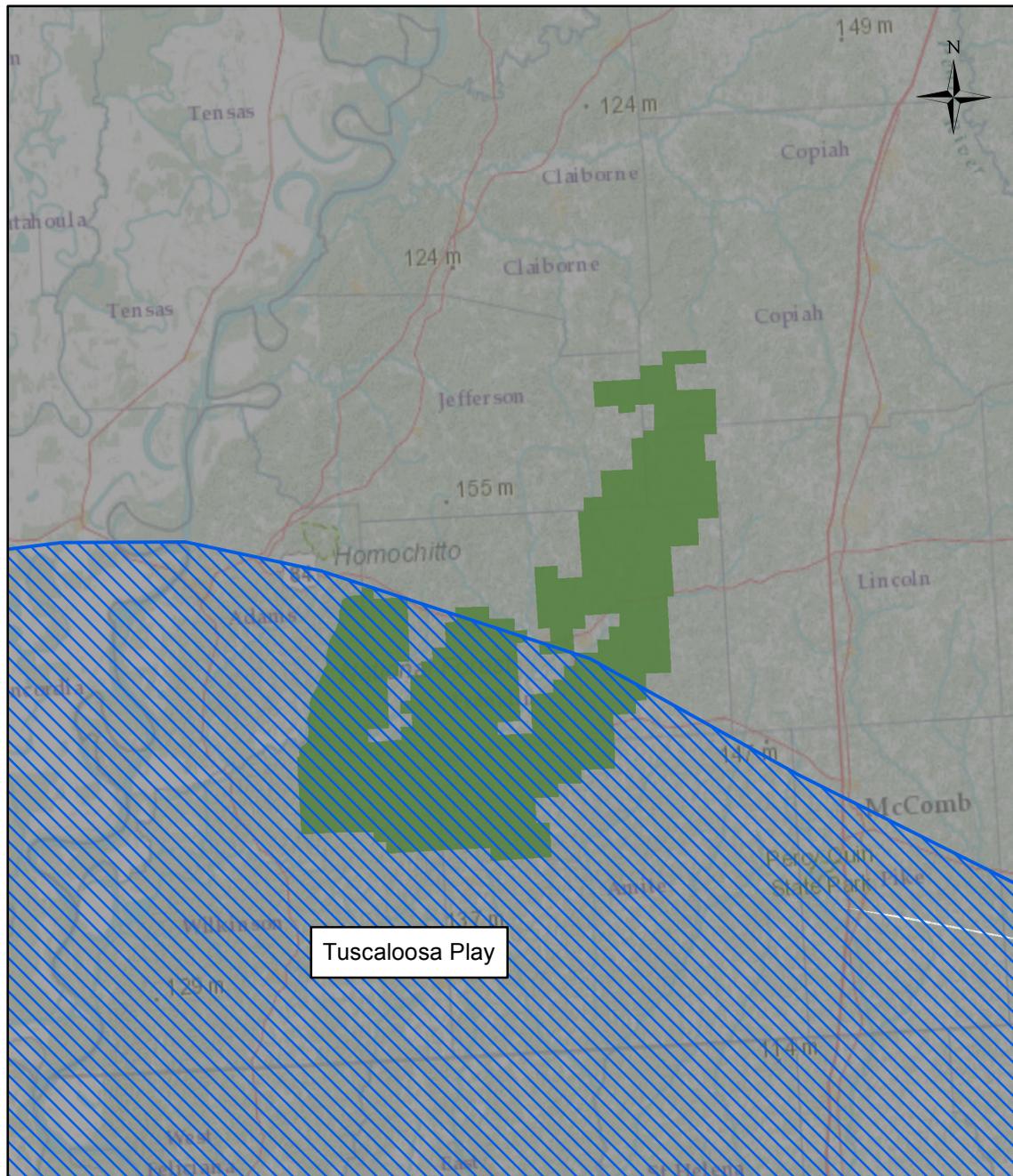


Exhibit 5

Shale Resources in the Homochitto National Forest



Data from U.S. Energy Information Administration (EIA)



NATURAL RESOURCES DEFENSE COUNCIL
THE EARTH'S BEST DEFENSE

* Entire area of inset map is within the TX-LA-MS Salt Basin

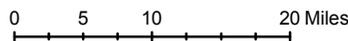


Exhibit 6

Note: Lease parcels ES-028, ES-032, ES-035, ES-040, and ES-041 subject to F.S. No Surface Occupancy Stipulation

Kisatchie Bayou

ES-026 ES-025
ES-027 ES-028 ES-030
ES-029
ES-035
ES-036 ES-034 ES-031
ES-037 ES-038 ES-039 ES-041
ES-040

Sept. 13, 2012
BLM-ES
Oil & Gas
Lease Sale
Kisatchie NF, LA

Legend
[Yellow dashed box] Lease Sale Parcels

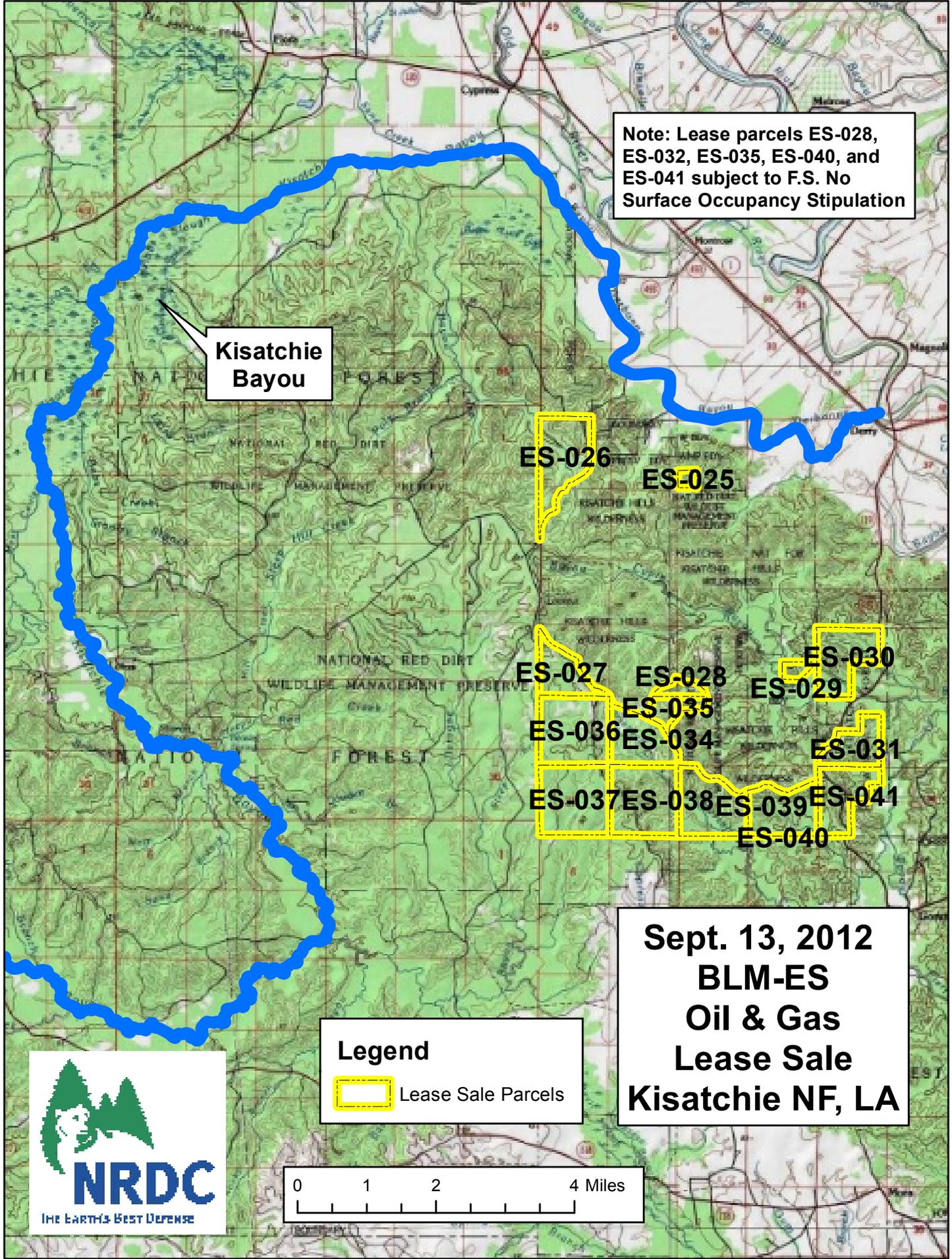
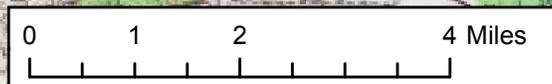


Exhibit 7

**Sept. 13, 2012
BLM-ES
Oil & Gas
Lease Sale
Kisatchie NF, LA**

Note: Lease parcel ES-020
subject to F.S. No Surface
Occupancy Stipulation

Legend

- Lease Sale Parcels
- Recreation Site
- Trailhead
- Trail



ES-004, ES-005

ES-010

ES-009

ES-007, ES-008

ES-013

Clear
Creek
Trail

ES-013

ES-011

ES-012

Livingston
Hickman
Loop
Trail

ES-013

ES-017

ES-016

ES-015

ES-014

Catahoula
Trail

ES-018

ES-019

ES-020

Livingston
Little
Creek
Trail

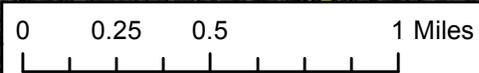


Exhibit 8

**Sept. 13, 2012 BLM-ES Oil & Gas Lease Sale
Bienville NF, MS**

**New Good Hope Church
428 New Goodhope Church Road**



Lease ES-056

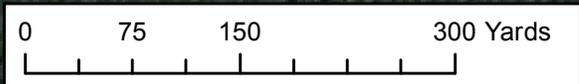


Exhibit 9



West Tallahala Creek

Sept. 13, 2012
BLM-ES
Oil & Gas
Lease Sale
Bienville NF, LA

Leaf River

Legend
[Yellow outline box] Lease Sale Parcels

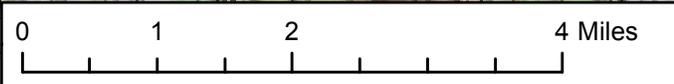


Exhibit 10

Sept. 13, 2012 BLM-ES Oil & Gas Lease Sale Kisatchie NF, LA

Legend

- Recreation Site
- Trailhead
- ▭ Wilderness
- ▭ Lease Sale Parcels
- Trail

Note: Lease parcels ES-028, ES-032, ES-035, ES-040, and ES-041 subject to F.S. No Surface Occupancy Stipulation

