BEFORE THE OBJECTION REVIEWING OFFICER
USDA FOREST SERVICE, ROCKY MOUNTAIN REGION

WILDEARTH GUARDIANS, Objector, v. GLENN P. CASAMASSA, Supervisor, Arapahoe-Roosevelt National Forest/ Pawnee National Grassland, Responsible Official.	)	Objection to the Draft Record of Decision and Final Environmental Impact Statement for the Pawnee National Grassland Oil and Gas Leasing Leasing Analysis, Weld County, Colorado (December 2014)

NOTICE OF OBJECTION, STATEMENT OF REASONS, AND REQUEST FOR RELIEF

Submitted via e-mail to R02admin_review@fs.fed.us
January 20, 2015

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INTRODUCTION

Pursuant to 36 C.F.R. § 218, WildEarth Guardians hereby objects to the Draft Record of Decision ("ROD") and Final Environmental Impact Statement ("FEIS") for the Pawnee National Grassland Oil and Gas Leasing Analysis issued by Glenn Casamassa, Supervisor of the Arapahoe-Roosevelt National Forest and Pawnee National Grassland, in December 2014.[1] The proposed decision would make nearly all lands not currently leased for oil and gas development on the Pawnee available for leasing and require a no surface occupancy ("NSO") stipulation for any future leasing.

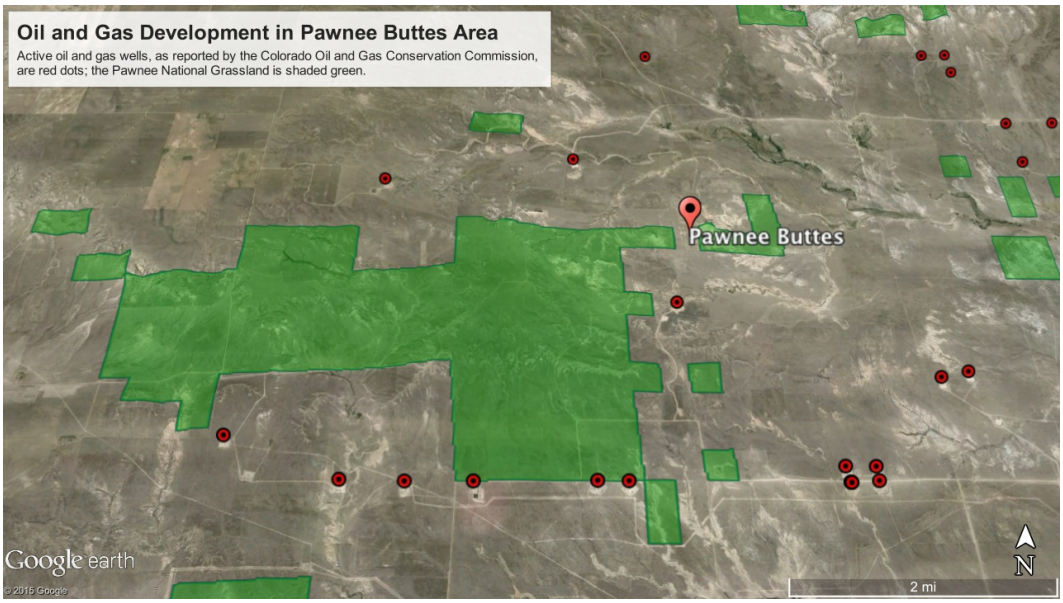
Our primary objection lies with the fact that the U.S. Forest Service ("USFS") has not fully met its duties under the Mineral Leasing Act ("MLA"), 30 U.S.C. § 226, and its own oil and gas regulations, 36 C.F.R. § 228, to protect the Pawnee National Grassland from the impacts of oil and gas development. In rushing to issue its decision, the USFS unfortunately cut corners, overlooked obligations, and proposed a sloppy decision that fails to fully protect Grassland resources.[2]

To be certain, NSO stipulations will protect the surface, keeping drilling rigs and related operations from directly setting foot onto the Pawnee on any new leases. However, NSO stipulations alone fail to fully protect resources within the Grassland that are managed by the USFS, leaving the air, water, and fish and wildlife within the Pawnee as vulnerable as ever.

As the agency acknowledges, the minerals underlying the Pawnee will still be developed under its NSO decision. This development will just occur on lands adjacent to the Grassland. In many cases, this development is likely to occur right at the edge of the Pawnee, as has happened in the iconic Pawnee Buttes area. *See* Map below. Although the surface of the Grassland may not be impacted, development of underlying oil and gas on directly adjacent lands will continue to pose significant impacts—including air pollution, water contamination, and other indirect impacts to fish and wildlife habitat—to resources within the Pawnee.

[1] This Objection is timely filed pursuant to 36 C.F.R. § 218. Legal notice of the opportunity to object was published on December 4, 2014 in accordance with 36 C.F.R. § 218.7. In accordance with 36 C.F.R. § 218.26(a), an objection was required to be filed within 45 days following publication of the legal notice. However, this 45-day deadline fell on January 18, 2015, a Sunday, and the following day, January 19, 2015 was a federal holiday (Martin Luther King Day). Given that when the deadline for filing an objection falls on a Sunday or a federal holiday, the time is extended to the next federal working day, this Objection is timely filed on January 20, 2015.

[2] The USFS issued a FEIS a little over a month after the close of the public comment period on the Draft EIS, a phenomenally short amount of time compared to other EISs prepared by the agency. While it is difficult to understand the rush to accommodate more oil and gas leasing, the poor quality of the FEIS and inadequate response to many issues seems to underscore that the USFS likely put expediency above full legal compliance.



Active oil and gas wells in Pawnee Buttes Area. No wells are actually on the Pawnee in this area, but rather directly on adjacent lands. Map created with Google Earth using Colorado Oil and Gas Conservation Commission and U.S. Forest Service data.

In many cases, it appears such impacts will directly contravene the 1997 Land and Resource Management Plan ("LRMP") for the Arapahoe-Roosevelt National Forest and Pawnee National Grassland. Take, for example, raptor nests. Under, the LRMP known raptor nests must be protected and, at a minimum, safeguarded by a "no-disturbance buffer" from nest-site selection to fledging. LRMP at 30, Standard 101. In accordance with this Standard, the LRMP requires that, as a stipulation of oil and gas leasing, no drilling or other construction activities occur "within 500 meters of active raptor during March 1-June 30. LRMP, Appendix D at 6. The Draft ROD, however, imposes no such buffer as a condition for leasing.[3] The result is that active raptor nests on the Pawnee have no buffer of protection when adjacent lands are developed to tap the underlying oil and gas, even if drilling occurs within 500 meters between March 1 and June 30th. This not only puts nests located in the Pawnee Buttes and other important raptor nesting areas at great risk, but also is contrary to the LRMP.[4]

[3] In fact, the Draft ROD explicitly "replaces" this stipulation. Draft ROD at 3.

[4] This is of grave concern as the USFS discloses that raptors are declining on the Pawnee. *See* FEIS at 116.

Oil wells constructed on private lands near the east Pawnee Butte.

The USFS responded to this issue by arguing it lacks authority to regulate surface disturbance associated with the development of minerals underlying the Pawnee. The MLA, however, imposes no such limitation on the agency's authority. In fact, the MLA expressly states that where a lease is on National Forest System lands, the USFS "shall regulate all surface-disturbing activities." 30 U.S.C. § 226(g). The USFS's own regulations confirm that leasing can only be allowed where surface use is subject to "constraints" that are "necessary and justifiable." 36 C.F.R. § 228.102(c)(1)(ii). Such necessary and justifiable constraints must include, at a minimum, stipulations that ensure compliance with the LRMP. 36 C.F.R. §§ 228.102(e)(1) and (2). Indeed, the agency cannot authorize leasing "[i]f there is inconsistency with the Forest land and resource management plan." *Id*.

This is not a matter of the USFS asserting regulation of private lands. This is a matter of the agency regulating surface activities associated with the development of federally owned oil and gas beneath the Pawnee. In order to consent to the leasing of underlying lands, the USFS not only has the authority, but also the duty, to ensure the impacts of any associated surface development protects the Pawnee National Grassland. Nothing in the MLA or the agency's regulations indicates this authority ceases simply because the surface activities would not occur directly on top of the Grassland. Rather, if the agency cannot meet its duty to protect the Pawnee, then it simply cannot consent to leasing.

The need for the USFS to be as protective as possible in its oil and gas leasing analysis is critical. Fueled by advances in hydraulic fracturing, or fracking, the oil and gas industry is in a frenzy to tap underlying shale formations in the region using horizontal drilling. Far from more

traditional forms of oil and gas development, horizontal drilling and fracking of shale has led to an intensive surge in industrial activity in and near the Pawnee. Extensive well drilling and fracking, pipeline construction, road building, production facility development, loading terminals, etc. Attached to this Objection as Exhibit 1 is a collection of photos documenting just some of this industrial development on and near the Pawnee. The FEIS confirms this onslaught of industrial activity, noting the "new sight" of oil and gas surface activities, a dramatic increase in "[s]emi-truck traffic," pipeline trenches and associated vegetation-free paths that will last for "forty years," and the presence of production operations, including "pump jacks, tank batteries and above and below ground piping." FEIS at 233. All appearances are that the oil and gas industry is showing no restraint in its zeal to profit off of publicly owned minerals at the expense of public lands.

With more of this development on the horizon, the Pawnee is more at risk than ever. Even the USFS acknowledges that under a reasonably foreseeable development analysis prepared by the Bureau of Land Management ("BLM"), 354 new oil and gas wells are projected for development within the boundary of the Pawnee over the next 20 years, even under the NSO alternative. *See* FEIS at 152. The scale and pace of development threatens to overwhelm the regions' natural values and turn these public lands into an industrial disaster zone.

As the USFS also acknowledges in its FEIS, this development will carry a heavy toll on the region. From contributing to increased air pollution, including greenhouse gas emissions, threatening ground and surface water contamination, and adversely affecting the region's fish and wildlife, the decision to make lands available for leasing will not be without serious consequences. The fact that the proposed leasing will contribute more air pollution in a region already violating federal health limits on ground-level ozone, the key ingredient of smog, underscores the severity of the consequences. Far from a paperwork exercise, the agency's oil and gas analysis is the foundation for ensuring any future leasing and subsequent development is appropriately managed. Any decision now to forego analysis, safeguards, or oversight will only make it more difficult, if not impossible, to effectively protect the Pawnee.[5]

We raise the following objections in the hopes that the USFS will give necessary and legally required consideration to the potentially significant adverse impacts of drilling and fracking to the Pawnee, ensure full safeguarding of resources consistent with its LRMP and other applicable environmental protection laws, and most importantly, ensure that its duty to protect the Pawnee trumps demands for more leasing.

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[5] This is especially true given that USFS will undertake no further decisionmaking, including any additional NEPA analysis, prior to the leasing of any oil and gas underneath the Pawnee. As the agency acknowledges, its oil and gas leasing analysis is the final step prior to the BLM selling and issuing lease parcels. *See* FEIS at 2. The sale and issuance of an oil and gas lease by the BLM conveys upon the lessee the "right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource" unless constrained by stipulations. 43 C.F.R. § 3101.1-2. As courts have held, analysis of site-specific impacts must take place at the lease stage and cannot be deferred until after receiving applications to drill. *See New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 717-18 (10th Cir. 2009); *Conner v. Burford,* 848 F.2d 1441 (9th Cir.1988); *Bob Marshall Alliance v. Hodel,* 852 F.2d 1223, 1227 (9th Cir.1988). Although the USFS may have a role to play in any future approval of applications for permits to drill ("APDs"), the agency's ability to constrain surface activities will therefore be severely limited. The USFS's oil and gas leasing analysis therefore represents the final opportunity for the agency to influence future leasing and therefore to retain full authority to influence future surface development.

OBJECTOR

WildEarth Guardians is a Santa Fe, New Mexico-based nonprofit organization with offices throughout the western U.S., including in Colorado. WildEarth Guardians is dedicated to protecting and restoring wild places, wildlife, wild rivers, and the health of the American West and has over 44,000 members. As part of its Climate and Energy Program, Guardians works to combat climate change by advancing clean energy and aiding a transition away from fossil fuels, the key source of the greenhouse gases fueling global warming, particularly on our pubic lands. In doing so, Guardians defends the public interest by safeguarding clean air, pure water, vibrant wildlife populations, and protected open spaces.

WildEarth Guardians submitted timely comments on the Draft Environmental Impact Statement for the Pawnee National Grassland Oil and Gas Leasing Analysis, and therefore may file this Objection in accordance with 36 C.F.R. § 218.5. Further, the objections raised herein were specifically raised in these prior submitted comments. Therefore, the issues raised in this Objection are subject to review under 36 C.F.R. § 218.8.

STATEMENT OF REASONS

I. Legal Background

While the Secretary of Interior is charged with authority to lease federally owned oil and gas, the Secretary of Agriculture, through the USFS, is charged with authority to determine whether and to what extent oil and gas should be leased beneath National Forest System lands, including National Grasslands. To this end, the MLA broadly provides that no lease may be issued on National Forest System lands "over the objection" of the USFS, giving the agency broad discretion to approve or of disapprove. 30 U.S.C. § 226(h). Further, where a lease is issued on National Forest System lands, the USFS "shall regulate all surface-disturbing activities" conducted pursuant to that lease. *Id*. at § 226(g).

Pursuant to its authority under the MLA, the USFS has promulgated rules governing the leasing of oil and gas on National Forests and Grasslands. These rules require the agency to determine which areas will generally be open or closed to leasing and development, or otherwise subject to constraints, including standard terms and conditions and/or stipulations that are necessary and justifiable. 36 C.F.R. § 228.102(c)(1).

Above all, prior to leasing, the USFS must meet three key duties. First, it must ensure the reasonably foreseeable environmental impacts of post-leasing activity have been analyzed pursuant to the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4331, *et seq*., and regulations promulgated thereunder by the White House Council on Environmental Quality ("CEQ"), 40 C.F.R. § 1500, *et seq*. 36 C.F.R. § 228.102(e)(1). To this end, the agency must ensure that direct, indirect, and cumulative effects, as defined under 40 C.F.R. § 1508.7 and 1508.8, have been fully analyzed and assessed. 40 C.F.R. § 1502.16.

Second, it must ensure that there is no "inconsistency" with the applicable LRMP. 36

C.F.R. § 228.102(e)(1). This duty stems from the USFS's statutory obligation under the National Forest Management Act ("NFMA") to ensure that its actions are "consistent" with its LRMP. 16 U.S.C. § 1604(i).

Finally, as a general matter, the USFS must meet other applicable duties under federal law. Among other things, these include duties under the Clean Air Act to ensure that post-leasing activity conforms to state plans limiting air pollution in nonattainment areas. 42 U.S.C. § 7506(c)(1). Further, the agency must ensure under the Endangered Species Act that the reasonably foreseeable impacts of leasing do not jeopardize threatened or endangered fish and wildlife or adversely modify their critical habitat. 16 U.S.C. § 1536(a).

II. The FEIS Fails to Comply with NEPA

NEPA is our "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). The law requires federal agencies to fully consider the environmental implications of their actions, taking into account "high quality" information, "accurate scientific analysis," "expert agency comments," and "public scrutiny," prior to making decisions. *Id*. at 1500.1(b). This consideration is meant to "foster excellent action," meaning decisions that are well informed and that "protect, restore, and enhance the environment." *Id*. at 1500.1(c).

To fulfill the goals of NEPA, federal agencies are required to analyze the "effects" of their actions to the human environment in an EIS. 40 C.F.R. § 1502.16(d). To this end, the agency must analyze the "direct," "indirect," and "cumulative" effects of its actions, and assess their significance. 40 C.F.R. §§ 1502.16(a), (b), and (d). Direct effects include all impacts that are "caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id*. at § 1508.8(b). Cumulative effects include the impacts of all past, present, and reasonably foreseeable actions, regardless of what entity or entities undertake the actions. 40 C.F.R. § 1508.7.

Here, the USFS fell short of complying with NEPA. In preparing its FEIS, the agency failed to adequately analyze and assess the reasonably foreseeable impacts of authorizing oil and gas leasing underneath the Pawnee and in doing so, failed to ensure a well-informed and "excellent" decision under NEPA. In many

A. The FEIS Fails to Adequately Analyze and Assess Fish and Wildlife Impacts

The FEIS fails to adequately analyze and assess impacts—including both direct and indirect impacts—to fish and wildlife, particularly to sensitive and management indicator species.

Of critical concern is that, although the USFS acknowledges that the NSO Alternative will still impact sensitive and management indicator wildlife species within the Pawnee, there is no actual analysis or assessment as to which species will be affected and to what extend these species will be impacted. Indeed, the extent of the USFS's analysis of the impacts of Alternative 3 to wildlife within the Grassland is as follows:

> [U]nder all alternatives, impacts such as human presence and traffic from well pads build on private lands can impact wildlife residing on the PNG. This is because although well pads are placed on private lands, wildlife species use both private and PNG land. Also, the unique situation of the mixed land ownership pattern on the PNG causes indicators such as traffic and human disturbance to occur adjacent to PNG lands and therefore still impacts wildlife within the boundaries of the federal PNG lands.

FEIS at 128-129. For sensitive fish species, the lack of disclosure is even more egregious. The USFS states that, "Cumulative effects of Oil and Gas development on adjacent lands may result in degradation of suitable aquatic habitats and possibly extirpations from locally occupied habitat; however the full extent of those impacts are indeterminable." FEIS at 114.

The lack of analysis of the impacts of oil and gas development on adjacent lands to fish and wildlife within the Pawnee is not only unsupported under NEPA, but fails to support the agency's claims that Alternative 3 will be universally less impacting than other alternatives analyzed in the FEIS for all fish and wildlife species. It further fails to support the agency's claim that the viability of sensitive fish and wildlife species will be maintained. Indeed, the agency cannot possibly assert that populations will be protected if it has not analyzed the extent to which species will actually be impacted on the Pawnee. This is of particular concern with regards to the plains topminnow and northern leopard frog, both species whose viability would be jeopardized under Alternative 2, but whose viability would somehow be protected under Alternative 3. *See* FEIS at 113 and 131. With no actual analysis of how the plains topminnow and northern leopard frog will be affected on the Pawnee, there is no support for the finding that these species' precarious viability will be maintained.

Fundamentally, NEPA requires an analysis of direct and indirect impacts, meaning the USFS was obligated to analyze and assess the degree to which its proposed action would impact fish and wildlife under its management within the Pawnee. The USFS is not allowed to avoid its NEPA obligations simply because it believes impacts are "indeterminable." Where there is incomplete and unavailable information relevant to reasonably foreseeable significant adverse impacts that is essential to a reasoned choice among alternatives, the agency must obtain the information if the costs "are not exorbitant." 40 C.F.R. § 1502.22(a). Here, the USFS has not demonstrated that the costs of obtaining incomplete and unavailable information related to fish and wildlife impacts on the Pawnee would be exorbitant, thus it is not appropriate for the agency to avoid obtaining information under NEPA for the purposes of analyzing and assessing impacts.

To this end, we are further concerned that the USFS has not analyzed or assessed the impacts of doing away with previously adopted stipulations for the protection of sensitive and other bird species, particularly timing and NSO stipulations. As the FEIS discloses, previous stipulations limited activities in mountain plover nesting habitat from April 10-July 10, limited activities within 500 meters of active raptor nests from March 1-June 30, required NSO within 500 meters of active bald eagle, golden eagle, ferruginous hawk, Swainson's hawk, and red-tailed hawk nests, and required NSO within 200 meters of the top of cliffs and 400 meters from the bottom of cliffs containing active prairie falcon nests. FEIS at 23. As written now, these stipulations apply to the development of any issued oil and gas lease underlying the Pawnee,

assuring consistent protection of key habitats during key time periods within the Grassland, even where surface-disturbing activities associated with the development of underlying leases may occur on adjacent lands.

With these stipulations proposed for removal under Alternative 3, it would appear that, where these birds inhabit the Pawnee, they are likely to be negatively impacted by post-leasing development on adjacent lands to a degree that has never before been allowed. Indeed, under Alternative 3, the development of leases underneath the Pawnee could occur on adjacent lands within 500 meters of active bald eagle, golden eagle, ferruginous hawk, Swainson's hawk, and red-tailed hawk nests on the Grassland, or occur within 200 meters of cliffs and 400 meters form the bottom of cliffs containing prairie falcon nests. It would appear that, under Alternative 3, sensitive and other birds that are currently protected by stipulations, would be more vulnerable. The FEIS fails to analyze and assess the impacts of doing away with previously adopted stipulations and therefore the assertion that Alternative 3 poses less significant impacts is unsupported under NEPA.

Finally, of key concern is that the FEIS provides no population data for which to support the agency's claim that its action will maintain viable populations of fish and wildlife, particularly of sensitive species, within the Pawnee National Grassland. There is no assessment as to whether all impacted sensitive species are currently viable within the Pawnee and therefore whether the agency's findings that viability under Alternative 3 will, for all species, be truly maintained.

B. The FEIS Fails to Analyze and Assess Air Quality Impacts

The primary shortcoming of the FEIS under NEPA is that it clearly does not adequately analyze and assess total emissions that are estimated to result from reasonably foreseeable post-leasing development. Of concern is the USFS claim that emissions under all three action alternatives would be exactly the same. *See* FEIS at 156. As the agency asserts, "[A]ll three alternatives would result in approximately the same level of emissions and thus the same impacts to air quality." FEIS at 152. The record does not support this inaccurate assertion, indicating the agency failed to analyze and assess the direct and indirect impacts of its action under NEPA.

The USFS seems to have done no more than take its RFD and add an assumption that the same number of wells will be drilled and same amount of oil and gas will be produced regardless of this decision, which is contrary to the overarching assumptions by the agency in the FEIS. As the agency itself claims, under the No Leasing Alternative, "412 million" fewer barrels of oil and "815 thousand" fewer cubic feet of natural gas will be produced, indicating that fewer emissions will be produced. Of course, given that the USFS claims that 10% more wells will actually be drilled under the No Leasing Alternative (*see* FEIS at 21), this could mean that emissions would actually be higher. The FEIS is entirely confusing on this matter, but regardless, fails to disclose any information suggesting that, despite differing levels of activity, air emissions would remain unchanged for each alternative.

Although the USFS may claim that the analysis in the FEIS represents maximum potential emissions under each alternative, such an analysis fails to provide any comparison of

the air pollution impacts of the alternatives in accordance with NEPA. Such an analysis certainly does not "sharply defin[e] the issues" or "provid[e] a clear basis for choice among options by the decisionmaker and public," as required by 40 C.F.R. § 1502.14. Certainly, the USFS cannot claim that it has objectively assessed the relative trade-offs of the alternatives from an air quality standpoint. This in turn casts doubt on the agency's overarching claim that the NSO Alternative, rather than the No Leasing Alternative, ultimately poses less significant impacts.

The lack of an objective analysis and assessment of reasonably foreseeable emissions from post-leasing development is also disconcerting in light of recent studies by University of Colorado and National Oceanic and Atmospheric Administration scientists, which have found that estimates of oil and gas emissions, particularly of volatile organic compounds ("VOCs"), or non-methane hydrocarbons, along the Front Range of Colorado have been significantly underestimated. The first study, published in the fall of 2014, found that, even in the face of emission reduction rules adopted by the Colorado Department of Public Health and Environment, emissions from oil and gas operations are continuing to rise due to the increasing pace and scale of development. *See* Exhibit 2, Thompson, C.R., et al. (2014), Influence of oil and gas emissions on ambient atmospheric non-methane hydrocarbons in residential areas of Northeastern Colorado, *Elementa: Science of the Anthropocene*, 2:000035 at 15. The second study, also published in the fall of 2014, found that Colorado Department of Public Health and Environment emissions inventories for oil and gas operations in the Denver Metro/North Front Range region are at least 50% too low. Exhibit 3, Pétron, G., et al. (2014), A new look at methane and nonmethane hydrocarbon emissions from oil and natural gas operations in the Colorado Denver-Julesburg Basin, *J. Geophys. Res. Atmos.*, *119*, 6836-6852 at 6850. As reported, "Overall, our top-down emission estimates for CH_4 [methane] and NMHCs [non-methane hydrocarbons] from oil and natural gas sources are at least twice as large as available bottom-up emission estimates." *Id*. at 6851.

Overall, the agency's estimates of air emissions associated with reasonably foreseeable post-leasing development simply are not accurate nor do they reflect an objective analysis and assessment of impacts under NEPA.

C. The FEIS Fails to Analyze and Assess Climate Impacts

The FEIS fundamentally fails to appropriately analyze and assess climate impacts in terms of the costs of environmental damages that will result from the release of carbon emissions as a result of post-leasing development. The USFS rejected WildEarth Guardians' call for an analysis of the social cost of carbon, providing fatally flawed, misstated, and fundamentally erroneous arguments. The FEIS fails to comply with NEPA because of this.

To the USFS's credit, the agency discloses the negative impacts on Colorado, the nation, and the world from ever-worsening climate change being fueled by fossil fuel production and consumption, including oil and gas development and usage, and the release of greenhouse gas emissions. The agency, however, dismisses the contribution of post-leasing development of oil and gas underlying the Pawnee to greenhouse gas emissions and ultimately to climate change as "negligible" and "inconsequential." Draft ROD at 4. Unfortunately, this assertion is not supported by simple to use, well supported, and credible methodologies for assessing the social

cost of carbon.

The social cost of carbon protocol for assessing climate impacts is a method for "estimat[ing] the economic damages associated with a small increase in carbon dioxide (CO2) emissions, conventionally one metric ton, in a given year [and] represents the value of damages avoided for a small emission reduction (i.e. the benefit of a CO2 reduction)." Exhibit 4, U.S. Environmental Protection Agency ("EPA"), "Fact Sheet: Social Cost of Carbon" (Nov. 2013) at 1. The protocol was developed by a working group consisting of several federal agencies, including the U.S. Department of Agriculture, EPA, CEQ, and others, with the primary aim of implementing Executive Order 12866, which requires that the costs of proposed regulations be taken into account.

In 2009, an Interagency Working Group was formed to develop the protocol and issued final estimates of carbon costs in 2010. *See* Exhibit 5, Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (Feb. 2010). These estimates were then revised in 2013 by the Interagency Working Group, which at the time consisted of 13 agencies, including the Department of Agriculture. *See* Exhibit 6, Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (May 2013).

Depending on the discount rate and the year during which the carbon emissions are produced, the Interagency Working Group estimates the cost of carbon emissions, and therefore the benefits of reducing carbon emissions, to range from $11 to $220 per metric ton of carbon dioxide. *See* Chart Below. In July 2014, the U.S. Government Accountability Office ("GAO") confirmed that the Interagency Working Group's estimates were based on sound procedures and methodology. *See* Exhibit 7, GAO, "Regulatory Impact Analysis, Development of Social Cost of Carbon Estimates," GAO-14-663 (July 2014).

Revised Social Cost of CO_2, 2010 – 2050 (in 2007 dollars per metric ton of CO_2)

Discount Rate Year	5.0% Avg	3.0% Avg	2.5% Avg	3.0% 95th
2010	11	32	51	89
2015	11	37	57	109
2020	12	43	64	128
2025	14	47	69	143
2030	16	52	75	159
2035	19	56	80	175
2040	21	61	86	191
2045	24	66	92	206
2050	26	71	97	220

Most recent social cost of carbon estimates presented by Interagency Working Group on Social Cost of Carbon. The 95th percentile value is meant to represent "higher-than-expected" impacts from climate change. *See* Exhibit 6 at 3.

Although often utilized in the context of agency rulemakings, the protocol has been recommended for use and has been used in project-level decisions. For instance, the EPA

recommended that an EIS prepared by the U.S. Department of State for the proposed Keystone XL oil pipeline include "an estimate of the 'social cost of carbon' associated with potential increases of GHG emissions." Exhibit 8, EPA, Comments on Supplemental Draft EIS for the Keystone XL Oil Pipeline (June 6, 2011). The BLM has also utilized the social cost of carbon protocol in the context of oil and gas leasing. In recent Environmental Assessments for oil and gas leasing, the agency estimated "the annual SCC [social cost of carbon] associated with potential development on lease sale parcels." Exhibit 9, BLM, "Environmental Assessment DOI-BLM-MT-C020-2014-0091-EA, Oil and Gas Lease Parcel, October 21, 2014 Sale" (May 19, 2014) at 76. In conducting its analysis, the BLM used a "3 percent average discount rate and year 2020 values," presuming social costs of carbon to be $46 per metric ton. *Id*. Based on its estimate of greenhouse gas emissions, the agency estimated total carbon costs to be "$38,499 (in 2011 dollars)." *Id*.

To be certain, the social cost of carbon protocol presents a conservative estimate of economic damages associated with the environmental impacts climate change. As the EPA has noted, the protocol "does not currently include all important [climate change] damages." Exhibit 4. As explained:

> The models used to develop [social cost of carbon] estimates do not currently include all of the important physical, ecological, and economic impacts of climate change recognized in the climate change literature because of a lack of precise information on the nature of damages and because the science incorporated into these models naturally lags behind the most recent research.

Id. In fact, more recent studies have reported significantly higher carbon costs. For instance, a report published this month found that current estimates for the social cost of carbon should be increased six times for a mid-range value of $220 per ton. *See* Exhibit 10, Moore, C.F. and B.D. Delvane, "Temperature impacts on economic growth warrant stringent mitigation policy," *Nature Climate Change* (January 12, 2015) at 2. In spite of uncertainty and likely underestimation of carbon costs, nevertheless, "the SCC is a useful measure to assess the benefits of CO2 reductions," and thus a useful measure to assess the costs of CO2 increases. Exhibit 4.

That the economic impacts of climate change, as reflected by an assessment of social cost of carbon, should be a significant consideration in agency decisionmaking, is emphasized by a recent White House report, which warned that delaying carbon reductions would yield significant economic costs. *See* Exhibit 11, Executive Office of the President of the United States, "The Cost of Delaying Action to Stem Climate Change" (July 2014). As the report states:

> [D]elaying action to limit the effects of climate change is costly. Because CO_2 accumulates in the atmosphere, delaying action increases CO_2 concentrations. Thus, if a policy delay leads to higher ultimate CO_2 concentrations, that delay produces persistent economic damages that arise from higher temperatures and higher CO_2 concentrations. Alternatively, if a delayed policy still aims to hit a given climate target, such as limiting CO_2 concentration to given level, then that delay means that the policy, when implemented, must be more stringent and thus more costly in subsequent years. In either case, delay is costly.

Exhibit 11 at 1.

The requirement to analyze the social cost of carbon is supported by the general requirements of NEPA, specifically supported in federal case law, and by Executive Order 13514. NEPA requires agencies to take a "hard look" at the consequences of proposed agency actions. 42 U.S.C. § 4321 *et seq*.; *Morris v. U.S. Nuclear Regulatory Commission,* 598 F.3d 677, 681 (10th Cir. 2010). Consequences that must be considered include direct, indirect, and cumulative consequences. An analysis of site-specific impacts must take place at the lease stage and cannot merely be deferred until after receiving applications to drill. *See New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 717-18 (10th Cir. 2009); *Conner v. Burford,* 848 F.2d 1441 (9th Cir.1988); *Bob Marshall Alliance v. Hodel,* 852 F.2d 1223, 1227 (9th Cir.1988). Any NEPA analysis of a fossil fuel development project that fails to use the government-wide protocol for assessing the costs to society of carbon emissions from the proposed action has failed to take the legally required "hard look."

Courts have ordered agencies to assess the social cost of carbon pollution, even before a federal protocol for such analysis was adopted. In 2008, the U.S. Court of Appeals for the Ninth Circuit ordered the National Highway Traffic Safety Administration to include a monetized benefit for carbon emissions reductions in an Environmental Assessment prepared under NEPA. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1203 (9th Cir. 2008). The Highway Traffic Safety Administration had proposed a rule setting corporate average fuel economy standards for light trucks. A number of states and public interest groups challenged the rule for, among other things, failing to monetize the benefits that would accrue from a decision that led to lower carbon dioxide emissions. The Administration had monetized the employment and sales impacts of the proposed action. *Id*. at 1199. The agency argued, however, that valuing the costs of carbon emissions was too uncertain. *Id*. at 1200. The court found this argument to be arbitrary and capricious. *Id*. The court noted that while estimates of the value of carbon emissions reductions occupied a wide range of values, the correct value was certainly not zero. *Id.* It further noted that other benefits, while also uncertain, were monetized by the agency. *Id*. at 1202.

More recently, a federal court has done likewise for a federally approved coal lease, which the USFS consented to. That court began its analysis by recognizing that a monetary cost-benefit analysis is not universally required by NEPA. *High Country Conservation Advocates v. U.S. Forest Service*, ---F. Supp.2d---, 2014 WL 2922751 (D. Colo. 2014), citing 40 C.F.R. § 1502.23. However, when an agency prepares a cost-benefit analysis, "it cannot be misleading." *Id*. at 3 (citations omitted). In that case, the NEPA analysis included a quantification of benefits of the project. However, the quantification of the social cost of carbon, although included in earlier analyses, was omitted in the final NEPA analysis. *Id*. at 19. The agencies then relied on the stated benefits of the project to justify project approval. This, the court explained, was arbitrary and capricious. *Id*. Such approval was based on a NEPA analysis with misleading economic assumptions, an approach long disallowed by courts throughout the country. *Id*. at 19-20.

In addition to case law, Executive Order 13514 makes the "reduction of greenhouse gas

emissions a priority for federal agencies." E.O. 13514 at Preamble. The reduction of emissions includes emissions from both direct and indirect activities. *Id*. at Section 1. This Executive Order requires that, "[i]n order to create a clean energy economy that will increase our Nation's prosperity, promote energy security, protect the interests of taxpayers, and safeguard the health of our environment," it is the "policy of the United States" that agencies "shall prioritize actions based on a full accounting of both economic and social benefits and costs." *Id*. When quantifying greenhouse gas emissions, the USFS is specifically instructed to "accurately and consistently quantify and account for greenhouse gas emissions" from sources controlled by the agency, including "emissions of greenhouse gases resulting from Federal land management practices." *Id*. at Section 9(a). The results of quantifying emissions from proposed federal land management actions, of fully accounting for all economic and social costs and benefits of those proposed actions, and the resulting prioritization of actions based on this quantification and accounting must be fully disclosed on publically available websites. *Id*. at Section 1.

In light of all this, it appears more than reasonable to expect the USFS to take into account carbon costs during a NEPA analysis using the social cost of carbon protocol. The calculations take a few minutes and can literally be done on the back of an envelope. Unfortunately, this has not happened in the FEIS. While the USFS acknowledges the devastating impacts of climate change, it fails to draw the necessary connection between this project and increased climate impacts and costs. The FEIS fails to take a hard look through a misleading economic analysis. On the one hand, the USFS purports to be able to estimate changes in federal, state, and county revenue, changes in total employment, and change in total labor income with a high level of precision. But the costs to society of releasing millions of metric tons of carbon dioxide equivalent is completely ignored, effectively presumed to be zero.

Perhaps the reason the USFS is refusing to analyze the social cost of carbon of this project is because those costs have the potential to be devastatingly high. The FEIS assumes that wells are productive for 50 years. *See* FEIS at 13. While many smaller sources of emissions are ignored by the USFS, it arrives at a project annual emissions estimate of 231,269 metric tons of carbon dioxide equivalent. FEIS at 188. Choosing the mid-range discount rate of 3% and the year 2015 from the Interagency Working Group's Technical Update (*see* Exhibit 6), emissions cost society $37 per metric ton of carbon dioxide equivalent. This represents a cost to society of $8.5 million per year or $425 million over the 50-year lifetime of wells. However, the costs of a ton of carbon emitted increase considerably in later years such that the costs are more than double toward the end of a well's productive period. Using conservative estimates, this project, if fully implemented could cost society more than half a billion dollars. While shocking on one level, this estimate reduces to no more than the simple message that climate scientists have been trying to communicate for decades: fossil fuels are now costing society more than they are benefiting it.

These costs are underscored by the findings of recent studies that have found the social cost of carbon is, in all actuality, much higher than reported by the Interagency Working Group. Taking into account the conclusions of the most recent study (*see* Exhibit 10), the true social cost of carbon is closer to $220 per metric ton. That would result in project costs of $51 million per year. With annual increases and considering a 50-year period for emissions, the carbon emitted from this project would cost society upwards of $5 billion.

The USFS, unfortunately, implicitly denied these numbers, or the reality that carbon emissions present any cost to our economy in the form of environmental damage. In the Draft ROD, the Supervisor asserts:

> I recognize that GHGs [greenhouse gases]are a consequence of oil and gas production, and developing these leases will increase GHGs and their social cost. However, this increase is negligible in the context of mineral development in the Royal Gorge Area and inconsequential in the context of global emissions.

Draft ROD at 3. Indeed, rather than assessing climate costs, the USFS instead employed the widely discredited strategy of claiming that the annual emissions from this project are significantly less than the emissions from every human activity everywhere in the U.S. (or even the world). *See* FEIS at 188-89. This comparison, however, is less than meaningless. The USFS calculates and extols the economic benefits of this project. It does not, however, note that these benefits are negligible and inconsequential compared to the annual national gross domestic product, or even the world's gross domestic product. That, too, would be a meaningless comparison. When the USFS claims it cannot "determine quantitatively the degree of change that might be attributable to these emissions" (*see* FEIS at 189), it is willfully ignoring the social cost of carbon protocol that was designed for this very purpose.

In its response to comments on this issue (*see* FEIS at 317), the USFS touts a number of uncertainties that it asserts prevent application of the social cost of carbon, despite the fact that the protocol was designed to account for and acknowledge just such uncertainties. In comparison, even more robust uncertainties, for example the cost of a barrel of oil which has lost more than 50% its value since June 2014, seem to provide no obstacle to the precise calculation of economic benefits that the USFS is certain will result from this project. As discussed above, uncertainties have not prevented federal courts from ordering federal agencies, including the USFS, to use the social cost of carbon and have not prevented other agencies from choosing to employ the protocol, including for the assessment of a federal oil and gas lease sale.

The USFS claims it cannot calculate the social cost of carbon for its oil and gas leasing analysis because the protocol is restricted to being used only "when developing regulations." FEIS at 317. As explained above, however, this is incorrect. The USFS also claims that it does not have to use the protocol because NEPA "does not require a quantitative cost-benefit analysis." *Id*. Even if this is true, it is clear that the USFS cannot provide a one-sided analysis of the project that makes fine calculations and specific estimates of all benefits imagined, but then utterly ignores project costs. That puts the finger on the proverbial scale and fails the hard look test, as the U.S. District Court for the District of Colorado recently held in *High Country Conservation Advocates*. Simply calling the analysis an "economic impact analysis," as the agency attempts, and thereby claiming it is not a one-sided benefits analysis that ignores costs does not cure the infirmity. This is not about a specific type of economic analysis – it is about refusing to do a balanced assessment of economic outcomes of the project. Regardless of the name used, the economic benefits of the project were carefully assessed and the economic costs of the project, namely carbon costs, were completely ignored.

This misleading analysis is contrary NEPA. Not only has the USFS not adequately analyzed and assessed the climate impacts of its actions, but it has not presented an objective and accurate analysis of tradeoffs that provide the decisionmaker and the public a clear basis for choice.

D. The FEIS Fails to Analyze and Assess Water and Soil Impacts

i. Surface Water

The FEIS fails to adequately analyze and assess potentially significant impacts to surface water quality. While the FEIS acknowledges that a number of significant impacts to surface water quality (including impacts to shallow groundwater, the "primary source of water for the surface water features on the [Pawnee]" FEIS at 75) could occur as a result of future oil and gas drilling and fracking, including potential contamination of waters from spills, contamination from pits and evaporation ponds, and increased sedimentation from roads and pipeline construction and crossings, there is no actual analysis. For instance, the FEIS discloses that in the area, there have been 61 spills associated with oil and gas development reported since 2006. FEIS at 75. Unfortunately, despite this single quantitative disclosure, the FEIS does not actually present an analysis or assessment of the potentially significant impacts of the action alternatives to surface water quality.

Instead, the FEIS appears rests its analysis of impacts on a general qualitative comparison of how the alternatives would directly impact surface waters within National Forest System lands. For instance, for Alternative 3, the FEIS's analysis boils down to "No drill pads or wells would occur on NFS lands." FEIS at 76. The USFS also discloses that cumulative impacts to the Pawnee National Grassland "could increase under Alternative 2." *Id*. These qualitative comparisons provide no information on actual impacts and without any analytical context, it is unclear how this serves to inform the decisionmaker and the public under NEPA. Simply because the USFS may assert that one alternative poses "less" impacts provides no information on the context and intensity of those impacts from which to base a reasoned decision.

Even more problematic is that the USFS's qualitative comparisons appear flawed. The analysis of impacts to surface water quality appears based on the presumption that fewer acres of surface disturbance on the Pawnee will result in fewer impacts to surface water quality. Yet it would appear that the reasonably foreseeable direct and indirect impacts of all action alternatives to surface water quality would be identical, regardless of whether drilling and fracking occur on the Pawnee. Simply because the USFS may believe a spill, for example, may not happen on the Pawnee National Grassland under Alternatives 1 and 3 does not mean that impacts to surface water quality will not occur to the same extent that they may occur under Alternative 2.

Put another way, the degree to which reasonably foreseeable development will directly impact the surface of the Pawnee is an inappropriate indicator of the degree to which reasonably foreseeable development will directly and indirectly impact surface waters, including shallow groundwater, in the region.

Regardless, the agency's flawed qualitative comparison is even more misplaced because

even the USFS itself discloses, even under Alternative 3 there could be "residual effects" to water resources on the Grassland. FEIS at 76. In other words, even development that occurs on adjacent lands could still impact the surface water within the Pawnee that is managed by the USFS. The agency makes no effort to disclose the extent to which such direct impacts would occur, further eroding the validity of any claim that Alternative 3 poses less overall direct and indirect impacts.

Even more disconcerting is that the agency's sells its analysis short, relying on the fatally flawed assumption that, under Alternative 1 and 3, the placement of surface facilities "would not be subject to the same restrictions as those on NFS lands[.]" FEIS at 76. This not an accurate statement. Under Alternative 3, the USFS would retain its authority under the MLA and its oil and gas leasing regulations to impose stipulations governing surface disturbing activity related to the development of leases beneath the Pawnee, particularly to protect resources, such as surface water quality, that are managed by the agency. There is nothing to suggest, for example, that the USFS could not impose a stipulation that requires lessees to "[p]lace new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water," a mandatory requirement under the LRMP. LRMP at 15, Standard 21. Such a stipulation would reduce the likelihood of spills occurring and directly and indirectly impacting surface water, especially surface water on the Pawnee that is managed by the USFS.

Further, while under Alternative 1, the USFS's authority to direct surface disturbance related to oil and gas development in the region will certainly be diminished, the agency will retain some authority to constrain future development near the Pawnee. The agency already has a mandatory duty under its LRMP to negotiate with private mineral owners to ensure operations are "as close as possible to the standards used for federal minerals." LRMP at 16, Standard 29. The USFS also has authority under its special use regulations at 36 C.F.R. § 251 to affect development of non-federal minerals that may require surface disturbance on the Pawnee. The agency acknowledges this in the FEIS, noting that it would continue to evaluate "special use permit applications for roads, pipelines, or other uses" under its special use regulations. FEIS at 5.

The failure of the USFS to acknowledge and apply the full scope of its authority in its analysis of the reasonably foreseeable impacts to surface water quality completely undermines the agency's key assumption that impacts under the NSO alternative will be mitigated and/or minimized to the fullest extent possible. The agency's logic seems to be that because it has done everything possible, it is not required to fully analyze impacts. While NEPA does not allow an agency to forego an analysis and assessment of direct, indirect, and cumulative impacts in an EIS simply because the impacts may not be subject to that agency's direct regulatory authority, the agency's logic is incorrect.[6] The USFS did not fully mitigate and/or minimize surface water impacts to the Pawnee, as it imposed no stipulations to regulate surface disturbing activities on

[6] The USFS's belief that it was not required to fully analyze and assess surface water impacts that are not under its direct regulatory authority is also undermined by the fact that the BLM is a cooperating agency on the FEIS. Clearly the BLM shares regulatory authority to minimize and/or mitigate the impacts related to the leasing of federal minerals, even where the USFS's authority may fall short. If, as is implied, the FEIS's analysis is limited solely to the extent to which the USFS has direct regulatory authority, then this FEIS cannot be relied upon by the BLM to support any future leasing decision involving minerals underlying the Pawnee.

adjacent lands such that surface waters on the Grassland were protected, even though under the MLA it had authority to do so.

WildEarth Guardians presented the aforementioned concerns to the USFS in its comments on the DEIS. *See* WildEarth Guardians' Comments on DEIS (Oct. 20, 2014) at 8-10. The agency's response is unclear as there is no direct response to this comment. The agency appears, however, to imply that an analysis of surface water impacts is not possible because of "incomplete and unavailable" information regarding the reasonably foreseeable impacts of post-leasing development, including information relating both to the risks of oil and gas development and to the nature, timing, and extent of development. FEIS at 333. This implication, however, is a gross overstatement and fails to sustain the USFS's complete lack of an analysis of surface water quality impacts.

To begin with, the FEIS clearly demonstrates that sufficient information exists to analyze and assess the reasonably foreseeable impacts of post-leasing activity. The FEIS discloses, for example, a number of reasonably foreseeable impacts, including number of wells, disturbed sites, and short and long-term disturbance. FEIS at 11-13. Relying on this information, the USFS presents a number of assumptions regarding the reasonably foreseeable impacts of oil and gas development, including likely development rates, location of development, well pad size, timing of disturbance, and rates of abandonment. FEIS at 13-14. The USFS has so much specific information regarding the reasonably foreseeable impacts of post-leasing development that it actually concluded that under Alternative 1, there would be 10% greater development and surface disturbance than under Alternatives 2 and 3. FEIS at 41-48. The agency reached this conclusion after assessing and mapping the footprint of oil and gas development, including the location of wells and well pads, under all alternatives in four discrete townships on the Pawnee. *Id*. Clearly there is sufficient information to analyze and assess the reasonably foreseeable surface disturbance associated with oil and gas development on the Pawnee, and therefore clearly sufficient information to actually analyze and assess surface water quality impacts.

Finally, to the extent there is "incomplete and unavailable" information, NEPA does not allow an agency to simply throw up its hands and ignore its duty to analyze and assess impacts in an EIS. Where incomplete and unavailable information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives, the agency must obtain the information if the costs "are not exorbitant." 40 C.F.R. § 1502.22(a). Here, the USFS has not demonstrated that the costs of obtaining incomplete and unavailable information would be exorbitant, thus it is not appropriate for the agency to avoid obtaining information under NEPA for the purposes of analyzing and assessing impacts. To the extent the agency may now claim that that costs are exorbitant, the agency's statements in the FEIS fail to provide the required information under 40 C.F.R. § 1502.22(b), including a "summary of existing credible scientific evidence" and "the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community."

ii. Water Use and Management

With regards to water use and management associated with leasing and production, the FEIS similarly provides little analysis. Although the FEIS acknowledges that under Alternatives

2 and 3, 7,140 acre-feet of water would be needed (*see* FEIS at 77), there is no actual analysis as to how this is likely to directly and indirectly affect groundwater and surface water.

The cumulative effects analysis also appears inaccurate and unsupported. The FEIS reports 6,400 acre-feet of water would be required for drilling and fracking on lands already leased and lands that are privately owned. However, the reasonably foreseeable development reported indicates that 515 new wells will be drilled and fracked on BLM lands and 12,261 on private lands (*see* FEIS at 11), for a total of 653,109 acre-feet of water consumed on top of what would be required by wells within the Pawnee. This figure does not even take into account the fracking of the 28,997 existing wells within and outside of the Pawnee. *See* FEIS at 11. As the FEIS discloses, wells are fracked four times over the life of the well, indicating that fracking of existing wells is a reasonably foreseeable impact. *Id*. at 77. Presuming that existing wells are fracked at least once more, this would lead to total water consumption of more than 1.4 million acre-feet of water, nearly half a trillion gallons of water.

Perhaps most disconcerting is that the USFS fails to acknowledge that water used for fracking is never again used and therefore represents an irreversible and irretrievable commitment of resources. As the Western Resource Advocates report cited in the FEIS discloses, 100% of water used for fracking is ultimately disposed of completely through underground injection wells or by other means, even if re-used for fracking. *See* Western Resource Advocates (2012) at 15.[7] This means that every acre-foot of freshwater consumed would represent an irreversible and irretrievable commitment of resources. The FEIS acknowledges this tangentially in the context of aquatic ecosystem impacts, noting that water used for fracking is "effectively removed from the hydrologic cycle" (*see* FEIS at 98), but fails to address this in the context of overall water quantity impacts (and fails to fully analyze what these permanent depletions mean for native fish, other than to state that such losses would "likely pose negative impacts"). Fundamentally, however, the failure to analyze and assess the impacts of permanent water losses is contrary to NEPA, which requires that "irreversible or irretrievable commitments of resources" be explicitly disclosed in EISs. 42 U.S.C. § 4332(2)(C)(v); *see also* 40 C.F.R. § 1502.16.

WildEarth Guardians raised concerns regarding the impacts of water use in its comments. *See* WildEarth Guardians' Comments on DEIS (Oct. 20, 2014) at 10-11. Aside from clarifying its calculation of water usage (*see* FEIS at 338), the USFS did not actually respond directly to these concerns in the FEIS. This is contrary to NEPA, which requires agencies to "assess and consider comments" and respond by either modifying the EIS or "explain[ing] why the comments do not warrant further agency response[.]" 40 C.F.R. § 1503.4(a).

iii. Groundwater Vulnerability

The FEIS's analysis of impacts to groundwater appears to be based on the flawed assumption that direct impacts to the surface of the National Grassland are indicative of all impacts—including direct and indirect impacts—to groundwater. As explained above, however, this is not the case. As the USFS discloses, even under Alternative 3, surface development will still occur in the area, posing impacts to groundwater. Although 6,786 acres of vulnerable

[7] This report is cited in the FEIS at 368.

groundwater resources will not be developed on the Pawnee, this does not appear to mean that no vulnerable groundwater resources will be disturbed at all, contrary to the FEIS's assertion otherwise. Indeed, the USFS discloses that even under Alternative 3, "groundwater recharge" and "groundwater discharge" could be reduced on the Pawnee. FEIS at 79.

The agency cannot limit its analysis and assessment of impacts solely to impacts that occur within the boundaries of the heavily fragmented Pawnee National Grassland. NEPA requires an analysis and assessment of reasonably foreseeable direct, indirect, and cumulative impacts, regardless of whether they occur within the action agency's administrative boundaries. Here, a reasonably foreseeable consequence of the agency's proposed action is that groundwater will be adversely affected, even if it is not located within the Pawnee. As the FEIS notes, "[d]rilling and associated production could impact groundwater quality through leaks, spills, pits, poorly cemented production wellbores, pipelines, or evaporation ponds." FEIS at 78. The USFS's assertion that there would be "0" disturbed acres is not only inaccurate, it's misleading. FEIS at 79. The USFS fails to acknowledge and analyze and assess accordingly all reasonably foreseeable impacts, including direct and indirect impacts, in the FEIS, contrary to NEPA.

WildEarth Guardians raised concerns regarding the impacts to groundwater in its comments. *See* WildEarth Guardians' Comments on DEIS (Oct. 20, 2014) at 11-12. The USFS did not actually respond directly to these concerns in the FEIS. This is contrary to NEPA, which requires agencies to "assess and consider comments" and respond by either modifying the EIS or "explain[ing] why the comments do not warrant further agency response[.]" 40 C.F.R. § 1503.4(a).

iv. Soils

The FEIS does not actually analyze the reasonably foreseeable impacts—including direct and indirect impacts—of oil and gas drilling and fracking to soils in the area of the Pawnee. Rather, the FEIS simply discloses how many acres of soils with high erosion potential and how many acres of soils with poor reclamation potential will be directly impacted within the Pawnee National Grassland. Based on this assessment, the USFS actually asserts that under Alternatives 1 and 3, "0" acres of soil disturbance will occur. FEIS at 81-82. We stated in our comments on the DEIS that, "this is preposterous," and reiterate that the USFS's analysis in the FEIS is also preposterous.

Under both Alternatives 1 and 3, oil and gas drilling and fracking will occur and therefore soil disturbance is still a reasonably foreseeable impact. Regardless of whether development directly occurs on the Pawnee, the USFS is still obligated under NEPA to analyze and assess the reasonably foreseeable impacts of its actions. Here, the FEIS contains no such analysis. Even the cumulative effects analysis fall short in this regard. Although past and present impacts are generally disclosed (albeit cursorily), there is no analysis of reasonably foreseeable impacts. *See* FEIS at 82.

WildEarth Guardians raised concerns regarding the impacts to soils in its comments. *See* WildEarth Guardians' Comments on DEIS (Oct. 20, 2014) at 12. The USFS did not actually respond directly to these concerns in the FEIS. This is contrary to NEPA, which requires

agencies to "assess and consider comments" and respond by either modifying the EIS or "explain[ing] why the comments do not warrant further agency response[.]" 40 C.F.R. § 1503.4(a).

v. Wetlands, Riparian, and Pothole Areas

Similar to our concerns over the soil analysis, the FEIS also wrongly asserts that under Alternatives 1 and 3, no impacts—including direct and indirect impacts—to mapped wetland, riparian, and pothole areas would occur. *See* FEIS at 83. This again is preposterous, as under these alternatives, surface disturbance would still occur, just not on the Pawnee. Such impacts, regardless of whether they occur on the Pawnee, are reasonably foreseeable and therefore must be analyzed and assessed as impacts of the USFS's proposed action.

To this end, it is concerning that the USFS states in the FEIS that the cumulative effects analysis boundary for wetlands, riparian, and pothole area impacts is limited only to National Forest System lands on the Pawnee National Grassland. This is an arbitrarily narrow cumulative effects analysis boundary and effectively means that reasonably foreseeable impacts associated with the agency's proposed action are going unanalyzed. NEPA requires that reasonably foreseeable impacts caused by an agency's action, otherwise known as indirect effects, be analyzed and assessed in an EIS. *See* 40 C.F.R. § 1508.8(b). The agency cannot draw the boundaries of its analysis area in such a manner as to preclude consideration of indirect impacts.

WildEarth Guardians raised concerns regarding the impacts to wetlands, riparian, and pothole areas in its comments. *See* WildEarth Guardians' Comments on DEIS (Oct. 20, 2014) at 12. The USFS did not actually respond directly to these concerns in the FEIS. This is contrary to NEPA, which requires agencies to "assess and consider comments" and respond by either modifying the EIS or "explain[ing] why the comments do not warrant further agency response[.]" 40 C.F.R. § 1503.4(a).

E. The Economics Analysis in the FEIS Remains Inadequate Under NEPA

Comments submitted by WildEarth Guardians regarding the adequacy and accuracy of the economics analysis in the DEIS have not been addressed in the FEIS. In general, the section overstates the total economic benefits of the project and does so with an over-inflated projection of precision. With oil currently priced at approximately half of the value when the economic assessment was completed, it is also useless and out of date.

Most disturbing, the FEIS continues to project jobs and revenue from new wells many times greater than existing wells with no justification. For example, current production on the Pawnee results from 40,000 acres, 55 active wells, production valued at $ 1.9 million, and labor outputs of two jobs and $99,500 in income. *See* FEIS at 292. Under the NSO Alternative, 100,329 new acres would be opened and somehow produce 590 million barrels of oil and 1.1 billion thousand cubic feet of gas. *See* FEIS at 310. These numbers contradict the ROD, which predicts significantly less oil and gas production. *See* Draft ROD at 6. While 40,000 acres currently support two jobs and $1.9 million in income, opening up less than three times this amount is going to somehow support 800 times more jobs and 50 times more local income. *See*

FEIS at 310. The only explanation is the obvious one; the books are cooked on benefits from this project. Far from a hard look, this section does not pass the laugh test under NEPA.

III. The Draft ROD Fails to Ensure Conformity Under the Clean Air Act

Pursuant to Clean Air Act, Clean Air Act regulations and the Colorado State Implementation Plan ("SIP"), the USFS is prohibited from undertaking any activity in a nonattainment area that does not conform to an applicable SIP. *See* 42 U.S.C. § 7506(a)(c); *see also* 40 C.F.R. § 93.150(a); Colorado SIP at Air Quality Control Commission Regulation No. 10, Part A (*see also* 64 Fed. Reg. 63,206 (Nov. 19, 1999), approving Colorado SIP incorporating 40 C.F.R. § 51, Subpart W (1994)). Specifically, the USFS must make a conformity determination for any activity authorized in an ozone nonattainment area that has direct and indirect emissions of volatile organic compounds ("VOCs") or nitrogen oxides ("NOx") that exceed 100 tons per year. *See* 40 CFR § 93.153(b)(1).[8] To demonstrate conformity, the agency must follow the procedures at 40 CFR §§ 93.158 and 93.159. *See* 40 CFR §§ 93.150(b).

Here, the USFS recognizes that Clean Air Act conformity requirements potentially apply to its proposed action due to the fact that leasing and reasonably foreseeable post-leasing development would occur in the "Denver Metro-North Front Range ozone nonattainment area," an area that was designated as nonattainment in 2012 due to violations of health-based national ambient air quality standards ("NAAQS") for ozone. FEIS at 142. These NAAQS limit concentrations of ozone, which forms when VOCs and NOx react with sunlight and is the key ingredient of smog, to no more than 0.075 parts per million over an eight hour period. 40 C.F.R. § 50.15. Unfortunately, the USFS errs in asserting that conformity requirements do not apply in the case of its oil and gas leasing analysis.

The Clean Air Act is clear that, "No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity" that does not conform to an approved state air quality implementation plan. 42 U.S.C. § 7506(c)(1). "The assurance of conformity . . . shall be an affirmative responsibility of the head of such . . . agency." To ensure conformity, agency actions must not "cause or contribute to any new violation of any [air quality] standard" or "increase the frequency or severity of any existing violation of any standard in any area." *Id.* § 7506(c)(1)(B). This statute is very broadly applicable, as reflected in the definition of "federal action."40 C.F.R. § 93.152. The decision at hand surely involves the USFS engaging in an "activity," or "federal action." Thus, the USFS has an "affirmative responsibility" to assure that the decision at hand conforms to the Colorado SIP.

In the DEIS, the USFS relied on a number of incorrect arguments to claim that no conformity determination is required. In the FEIS, the USFS has settled on an intertwined set of incorrect assertions to justify its inaction. Those assertions are summed up in the following

[8] Direct emissions are defined as those emissions that are caused or initiated by the Federal action and occur at the same time and place as the action. Indirect emissions are defined as those emissions that are caused by the Federal action, but may occur later in time and/or distance, and are reasonably foreseeable, and which the Federal agency can practically control and will maintain control over. *See* 40 C.F.R. § 93.152.

statements: 1) The USFS has chosen not to demonstrate conformity because emissions are not "entirely foreseeable," FEIS at 152; 2) The USFS claims that there is no way to project the "extent of oil and gas development that might occur as a result of this decision," FEIS at 154; 3) The USFS claims that its decision "would not result in any direct emissions of air pollutants," FEIS at 154; and 4) "A leasing decision does not authorize or allow any oil and gas development . . . ," Draft ROD at 7. Each of these statements is incorrect and none provide a legitimate basis for failing to accept the affirmative responsibility to show that its oil and gas leasing decision is in conformity with the Colorado SIP. The four intertwined rationales are addressed individually below.

First, the USFS has chosen not to demonstrate conformity because emissions are not "entirely foreseeable." FEIS at 152. This is not the standard applied when making an applicability analysis and a general conformity determination. The standard in the applicable regulations, which were promulgated by EPA and not the USFS, is that an agency must assess emissions that are "reasonably foreseeable." 40 C.F.R. § 93.152. The USFS has artificially and illegally raised the standard for when emissions must be assessed to demonstrate conformity. This is not a legitimate rationale for evading a conformity determination – the standard is "reasonably foreseeable." Based on the standard of "reasonably foreseeable," it is clear that its decision would trigger conformity requirements. As the FEIS discloses, post-leasing oil and gas development emission rates are estimated to be 927 tons of NOx per year and 1,838 tons of VOCs, far above the 100 ton per year de minimis threshold under the Clean Air Act. FEIS at 156. In comments on the DEIS, even the EPA agreed that there are reasonably foreseeable projected emissions estimates available at the leasing stage. EPA Comments on DEIS (Oct. 17, 2014) at 5.

Second, the USFS has chosen not to demonstrate conformity because there is no way to project the "extent of oil and gas development that might occur as a result of this decision." FEIS at 154. There is much in the record demonstrating that this is not true. In fact, the USFS does not even believe its own statement. The USFS has determined that the NSO Alternative and the No Action Alternative both will result in the extraction of 412 million barrels of oil and 815 thousand cubic feet of natural gas that will not be extracted under the No Leasing Alternative. Draft ROD at 6. If the No Leasing Alternative is chosen, this oil and gas will be "lost" in the parlance of the USFS; it will not be extracted and associated emissions will not be released. *Id.* at 6. If the NSO Alternative is instead chosen, "100% of the oil and gas can be recovered." *Id.* at 4. In other words, the USFS feels confident it knows exactly how much oil and gas will be extracted under the alternatives presented. Emissions of ozone precursors from these two levels of extraction are reasonably foreseeable and therefore must be analyzed.[9]

Third, the USFS has chosen not to demonstrate conformity because its decision "would not result in any direct emissions of air pollutants." FEIS at 154. For starters, this is again the incorrect standard. Both direct and indirect emissions must be in conformity with the Ozone

[9] The USFS presents a table alleging that emissions under all three alternatives will be identical. FEIS at 156. To be blunt, the notion that the production of hundreds of millions of barrels of oil plus additional gas will result in no emissions cannot be taken serious on its face and throws into doubt the modeling assumptions the USFS has employed. But there is a second fatal flaw with this analysis. The analysis was done using the CARMMS modeling study, which the USFS acknowledges is "not acceptable" for use in an ozone conformity analysis. FEIS at 323.

SIP. 40 C.F.R. § 93.153(b). Ignoring indirect emissions is a violation of the Clean Air Act. In the present case, choosing the NSO Alternative instead of the No Leasing Alternative will result in a huge level of emissions related to the extraction of hundreds of millions of barrels of oil and hundreds of thousand of cubic feet of natural gas. These new emissions would not occur in the absence of a specific Federal action and therefore are "caused by" the Federal action. 40 C.F.R. § 93.152 (defining "caused by" as direct and indirect emissions "that would not otherwise occur in the absence of the Federal action"). The emissions are reasonably foreseeable, can be controlled by the USFS through a reduction in the leased area or the inclusion of emissions reducing stipulations, and the USFS has continuing control over these emissions as part of its authority to regulate surface disturbing activities under the MLA. Thus, the emissions of this vast oil and gas development scheme are exactly the type of emissions that must be shown to conform with the SIP.

Fourth and finally, the USFS claims it is free from complying with Clean Air Act conformity requirements by asserting that "[a] leasing decision does not authorize or allow any oil and gas development . . . ." Draft ROD at 7. The USFS has a choice before it to decide to place 100,000 acres of public lands off limits to oil and gas leasing. It could disallow oil and gas leasing in this area or otherwise impose stipulations to limit air emissions. It is instead deciding to make all 100,000 acres available for leasing and to impose no stipulations to limit emissions. This is surely a decision that allows oil and gas leasing and condones reasonably foreseeable emissions. That developers must engage in additional actions before emissions are directly released is irrelevant. But for the action the USFS proposes taking, emissions from post-leasing development would not occur. Those emissions are foreseeable. By any test under the law, including the specific relevant definition of "caused by," this federal action would cause future emissions.

Apart from these four assertions, the USFS turns twice to regulatory language to argue that it need not conform to the Colorado SIP. It claims that the federal action at hand is "similar in nature to" transfers of ownership, interests, and titles in land" and other property, actions which are exempt from a conformity determination. FEIS at 184, citing 40 C.F.R. § 93.153(c). Of course, an action that is similar in nature to a set of specific listed actions does not confer the same status as being on the list of specific, exempted actions. In essence, the USFS admits that the action at hand is not on the list of exempted actions. Here, there is no transfer of ownership, interests, or title that result from the federal action. It is notable that in comments on the DEIS, the EPA expressed no agreement with the USFS's assertion that any exemption at 40 C.F.R. § 93.153(c) applied and stated clearly that oil and gas leasing decisions "may necessitate a general conformity analysis and as appropriate, a conformity determination." EPA Comments on DEIS (Oct. 17, 2014) at 4.

Second, the USFS tries to argue that it does not need to complete a conformity determination for the "portion of an action" that requires subsequent, specific air permitting decisions. But even the USFS does not take this argument seriously as it fails to argue that this section would exempt the decision from a conformity determination completely, and it fails to name exactly what portions of the decision should be exempt. The EPA, too, was critical of the USFS on this point, noting that only stationary sources required to obtain a permit under the New Source Review or PSD [prevention of significant deterioration] programs are exempt. EPA

Comments on DEIS (Oct. 17, 2014) at 5. This section provides no relief from the Clean Air Act's conformity requirements.

In its response to comments, the USFS reiterates a trigger for performing a conformity determination that garners no support in the relevant statutes or regulations. While the regulation states clearly that direct and indirect emissions are those that "would not otherwise occur in the absence of the Federal action," the USFS prefers instead to claim that its decision does not authorize emission-producing activities or confer lease rights or any permit to drill. FEIS at 321. This attempt at a regulatory rewrite is simply a distraction. If the USFS selects the No Leasing Alternative, no emissions from developing 100,000 acres of federal minerals will result. If it instead selects the NSO Alternative, it must perform a conformity determination. This federal action would be the "but for" cause of those emissions. An assurance that a different agency will demonstrate conformity at some unknown time in the future cannot let the agency off the hook for complying with the Clean Air Act.

The USFS discloses in the FEIS, pollution from post-leasing development will contribute to the region's already significant ozone problem. *See* FEIS at 167-168. In other words, full development of all 100,000 acres of minerals, absent any stipulations to limit emissions of VOCs and NOx, is incompatible with safe air. This is especially true given that the EPA has recently proposed to strengthen the current NAAQS, dropping allowable 8-hour concentrations of ozone from 0.075 parts per million to between 0.065 and 0.070 parts per million. *See* 79 Fed. Reg. 75,234 (Dec. 17, 2014). Based on the modeling in the FEIS, the Denver Metro-North Front Range region is on track to violate these NAAQS in the foreseeable future, indicating that post-leasing development will continue to fuel unhealthy air pollution for years to come. The need for the USFS to comply with the Clean Air Act in the present is clearly critical for ensuring clean, healthy, and safe air for the future.

IV. The Draft ROD Fails to Ensure Compliance with the Endangered Species Act

The Draft ROD and FEIS fail to demonstrate that the USFS will ensure compliance with the Endangered Species Act if the oil and gas leasing analysis is approved. The FEIS indicates that the USFS is remiss in meeting its section 7 obligations under the Endangered Species Act, 16 U.S.C. § 1536(a). Section 7 requires federal agencies to "consult" with the U.S. Fish and Wildlife Service to ensure "any action authorized, funded, or carried out by such [agencies]" does not jeopardize the existence of or destroy or adversely modify the critical habitat of species listed under the Endangered Species Act. 16 U.S.C. § 1536(a)(2). To this end, "formal consultation" is required for "any action [that] may affect listed species or critical habitat." 50 C.F.R. § 402.14(a). Of particular concern is that the agency has not consulted and has signaled that it does not intent to consult at any point in the future over the impacts of its leasing decision to threatened and endangered species that inhabit the Platte River drainage downstream of the Pawnee, including the pallid sturgeon, whooping crane, piping plover, and least tern, even though these species will be "affected."

Here, the USFS does not deny that its action "may affect" the pallid sturgeon, whooping crane, piping plover, and least tern through reasonably foreseeable water depletions in the Platte

River drainage. The FEIS expressly discloses that water depletions under Alternative 3 "may affect and [are] likely to adversely affect" the whooping crane, piping plover, and least tern. FEIS at 122-123. Although the USFS asserted that "[a]ctual effects determinations to pallid sturgeon have not been made" (FEIS at 111), the fact that the whooping crane, piping plover, and least tern are likely to be adversely affected indicates the pallid sturgeon will be similarly affected as all species depend on water flows in the Platte River drainage. It is notable that the USFS discloses that "[a]dditional water withdrawn from the South Platte River would cause adverse impacts to the Pallid Sturgeon[.]" FEIS at 99. In light of this, the duty to enter into formal consultation in accordance with 50 C.F.R. § 402.14 is crystal clear.

The USFS, however, clearly disagrees. In response to comments on this issue, the agency asserted that formal consultation is not required because its action "does not result in any water depletion" and because consultation will be completed "before any APD [application for permit to drill]" is approved. FEIS at 332. These assertions, however, do not serve to absolve the agency from its duty to consult under section 7.

Although the USFS may believe that it is not obligated to consult under section 7 at the leasing stage, this belief is misplaced. Federal agencies must consult whenever their actions "may affect" a listed species. "Action" is broadly defined to include "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies" and includes "the granting of [] leases" or "actions directly or indirectly causing modifications to the land, water, or air." 50 C.F.R. § 402.02. Here, the decision to make lands available for oil and gas leasing clearly constitutes an action under the Endangered Species Act. It is, in effect, a decision to condone leasing. While leasing itself may not lead to direct effects, the USFS readily acknowledges in its FEIS that the reasonably foreseeable consequence of leasing will be 7,140 acre-feet or more of water depletions that are likely to adversely affect threatened and endangered species in the Platte River downstream of the Pawnee.

As to postponing consultation until the APD stage, nothing in the Endangered Species Act suggests that an agency can forego formal consultation where its decision "may affect" listed species and their habitats. Indeed, agencies are required to review their actions "at the earliest possible time to determine whether any action may affect listed species or critical habitat." *Id*. § 402.14(a). Given this, there is no basis for the agency to defer consultation at this time. Indeed, it is this very "earliest possible time" obligation that prompted the U.S. District Court for the District of Colorado to hold that an agency's decision to make lands available for oil and gas leasing constitutes federal action triggering section 7 obligations. *See Wilderness Society v. Wisely*, 524 F. Supp.2d 1285, 1302 (D. Colo. 2007) (finding "earliest possible time" requirement triggered section 7 duties over BLM decision to make lands available for oil and gas leasing).

The duty to consult at this time is underscored by the fact that the USFS currently has ample information to analyze and assess the impacts of projected water depletions to downstream species and that the agency has authority to limit water depletions. As discussed above, not only does the USFS have discretion to make National Forest System lands unavailable for leasing, thereby preventing adverse impacts, the agency has authority and discretion to regulate surface disturbance where leases are issued beneath such lands, thereby retaining authority to minimize and/or eliminate adverse impacts.

Unless and until the USFS formally consults with the U.S. Fish and Wildlife Service, the agency cannot issue a Final ROD for oil and gas leasing on the Pawnee, or otherwise consent to any future leasing.

V. The Draft ROD Fails to Ensure Compliance with the Arapaho-Roosevelt National Forest and Pawnee National Grassland Land and Resource Management Plan

The duty for the USFS to ensure its actions are consistent with its LRMP is paramount. Not only is the agency duty bound under NFMA to ensures its actions are consistent with its LRMP, 16 U.S.C. § 1604(i), but its oil and gas leasing regulations explicitly state that leasing must also be consistent with the LRMP, 36 C.F.R. § 228.102(e)(1). Indeed, if leasing is inconsistent, it must either be constrained through stipulations that assure consistency with the LRMP, 36 C.F.R. § 228.102(c)(1), or else it cannot be authorized by the USFS. 36 C.F.R. § 228.102(e)(1).

Here, the USFS has failed to ensure compliance with several standards set forth in the LRMP for the Arapaho-Roosevelt National Forest and Pawnee National Grassland. Standards are "courses of action or levels of attainment required to achieve goals and objectives." LRMP at 11. Standards are "mandatory and deviation from them is not permissible without an amendment to the [LRMP]." *Id*. To ensure consistency with the LRMP, the USFS was required to ensure that post-leasing surface development of leases underlying the Pawnee was appropriately constrained with stipulations to ensure compliance with the mandatory standards set forth therein. The agency failed to impose such stipulations, thereby failing to comply with NFMA and its oil and gas leasing regulations.

It is especially disconcerting that the agency's Draft ROD fails to impose stipulations to ensure compliance with several LRMP standards, including, but not limited to:

- Conduct all land management activities in such a manner as to comply with all applicable federal, state, and local air quality standards and regulations. LRMP at 13, Standard 2. Here, the USFS's Draft ROD would impose no stipulations that limit air emissions, even though the FEIS discloses that oil and gas development will contribute to exceedances and/or violations of the 8-hour NAAQS for ozone (*see* FEIS at 167-168), NAAQS for particulate matter less than 2.5 microns in diameter ("$PM_{2.5}$"), including both the 24-hour and annual NAAQS (*see* FEIS at 171-173), and the 1-hour NAAQS for nitrogen dioxide ("NO_2") (*see* FEIS at 178-179). These NAAQS are all applicable federal air quality standards that the USFS must comply with in accordance with its LRMP.

- In watersheds containing aquatic threatened, endangered, or sensitive species, "allow activities and uses within 300 feet or the top of the inner gorge (whichever is greatest), of perennial and intermittent streams, wetlands, and lakes (over 1 acre) only if onsite analysis shows that long-term hydrologic function, channel stability, and stream health will be maintained or improved." LRMP at 14, Standard 8. Here, nothing in the Draft ROD impose stipulations to ensure that oil and gas development does not occur within

300 feet of streams or wetlands containing sensitive species. This is of concern as the FEIS discloses that, even post-leasing development on adjacent lands could negatively impact habitat for aquatic sensitive species, including the plains topminnow and northern leopard frog.

- The following watershed and soil protection standards:

  - Conduct actions so that stream pattern, geometry, and habitats are maintained or improved toward robust stream health. LRMP at 14, Standard 10.

  - Do not degrade ground cover, soil structure, water budgets, and drainage patterns in wetlands. LRMP at 14, Standard 11.

  - Maintain enough water in perennial stream reaches to sustain existing stream health. LRMP at 14, Standard 12.

  - Limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate. LRMP at 14, Standard 15.

  - Construct roads and other disturbed sites to minimize sediment discharge into streams, lakes, and wetlands. LRMP at 14, Standard 16,

  - Stabilize and maintain roads, trails, and disturbed sites during and after construction to control erosion. LRMP at 14, Standard 17.

  - Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water. LRMP at 15, Standard 21.

  - Apply runoff controls to disconnect new pollutant sources from surface and ground water. LRMP at 15, Standard 22.

  For all of these standards, the Draft ROD fails to include any stipulations to ensure compliance. It is especially disconcerting that the Draft ROD does not prohibit the placement of new sources of chemical pollutants to ensure that such pollutants will not reach surface or ground water. This raises concerns that contamination related to drilling and fracking, such as from spills, is very likely to detrimentally impact resources on the Pawnee, contrary to the LRMP.

- Manage activities to avoid disturbance to sensitive species that would result in a trend toward federal listing or loss of population viability. LRMP at 18, Standard 50. Here, although the Draft ROD fails to include any stipulations to ensure protection of sensitive species viability, the FEIS also fails to demonstrate that species viability will be maintained. Not only does the FEIS fail to analyze and assess the impacts of post-leasing oil and gas development on adjacent lands to sensitive species on the Pawnee, but it fails to include any population data or assessment of species population viability that would

provide a fundamental basis for concluding that the population viability of sensitive species will be maintained.

- Protect known raptor nests, including protecting nests with a no-disturbance buffer around active nests from nest-site selection to fledging. LRMP at 30, Standard 101.

In its response to comments on this issue, the USFS asserts various arguments to support its claim that its LRMP standards will be met. For example, with regards to soil and watershed standards, the agency asserts that the NSO Alternative will not impact the surface of the Pawnee, and therefore all standards will be met. *See* FEIS at 332-333. However, this is belied by the fact that post-leasing development on adjacent lands still poses impacts to water and soil resources on the Pawnee. For instance, the FEIS notes that groundwater contamination on the Grassland could occur as a result of development on adjacent lands. *See* FEIS at 79. This strongly indicates that Standard 21 will not be met. The FEIS also notes that, under the NSO Alternative, "There could be residual effects to water resources in that drill pads and wells could be placed directly on the borders of NFS lands." FEIS at 76. This seems to strongly indicate that watershed protection standards may be at risk.

With regards to sensitive fish and wildlife viability, the USFS asserts that other agencies, including the Colorado Oil and Gas Conservation Commission, will consider impacts to wildlife. *See* FEIS at 333. The agency, however, cannot foist its duty to protect sensitive species population viability upon other agencies, especially a state agency with no duty to protect sensitive species viability. With regards to impacts to raptor nests, there is no explanation as to how failing to impose a "no disturbance" buffer around active nests at appropriate times will sufficiently protect raptors or otherwise comply with the LRMP.

Finally, with regards to air impacts, the USFS asserts that because its decision does not directly produce emissions, it complies with the LRMP. However, as explained in detail above, the agency's decision indirectly will lead to the release of emissions, as readily acknowledged in the FEIS's analysis and assessment of air quality impacts. Unless the USFS believes its FEIS is erroneous, there is no basis for any claim that its oil and gas leasing decision is not accountable to LRMP Standard 2 regarding the protection of federal air quality standards.

Although the USFS may assert that it cannot impose stipulations to constrain surface disturbance associated with the development of oil and gas leases underlying the Pawnee, as explained earlier, this assertion is erroneous. The agency not only has the authority, but the duty to protect resources on the Pawnee National Grassland under the MLA to ensure that development of underlying leases complies with the LRMP. Simply because this surface disturbance may occur on adjacent lands does not eliminate this duty. If, as the agency may believe, it lacks authority to constrain surface disturbance and ensure compliance with the LRMP, then it cannot authorize leasing, even under an NSO Alternative.

REQUEST FOR RELIEF

The USFS's Draft ROD and FEIS are fatally flawed in key regards. The proposed decision, as set forth in the ROD, cannot be adopted as it stands. For the aforementioned reasons, WildEarth Guardians hereby requests the following relief:

A. That the USFS be directed to supplement the FEIS in accordance with 40 C.F.R. § 1502.9(c) to address the aforementioned NEPA deficiencies and ensure compliance with NEPA;

B. That the USFS ensure conformity with the Clean Air Act, conduct a conformity analysis as required by 40 C.F.R. §§ 93.158 and 93.159, and develop and include any stipulations as may be necessary to assure conformity in any final ROD;

C. That the USFS formally consult with the U.S. Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act to ensure the impacts, including direct and indirect impacts, of its actions do not jeopardize the existence or adversely modify critical habitat for species in the Platte River drainage downstream of the Pawnee, and include any stipulations to protect downstream threatened and endangered species in any final ROD; and

D. That the USFS either include stipulations that assure post-leasing development fully complies with LRMP standards as part of any final ROD or otherwise withhold authorization for leasing underneath the Pawnee in accordance with 36 C.F.R. § 228.102(e)(1).

Respectfully submitted January 20, 2015

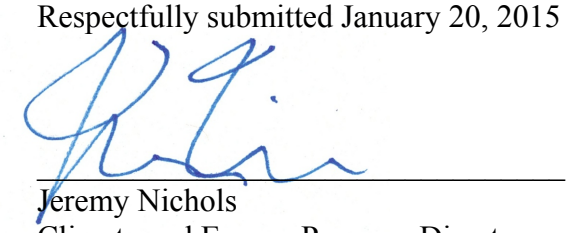

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TABLE OF EXHIBITS

1. Photos of oil and gas development within and near the Pawnee National Grassland prepared by WildEarth Guardians.

2. Thompson, C.R., et al. (2014), Influence of oil and gas emissions on ambient atmospheric non-methane hydrocarbons in residential areas of Northeastern Colorado, *Elementa: Science of the Anthropocene*, 2:000035.

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4. EPA, "Fact Sheet: Social Cost of Carbon" (Nov. 2013).

5. Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (Feb. 2010).

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7. GAO, "Regulatory Impact Analysis, Development of Social Cost of Carbon Estimates," GAO-14-663 (July 2014).

8. EPA, Comments on Supplemental Draft EIS for the Keystone XL Oil Pipeline (June 6, 2011).

9. BLM, "Environmental Assessment DOI-BLM-MT-C020-2014-0091-EA, Oil and Gas Lease Parcel, October 21, 2014 Sale" (May 19, 2014).

10. Moore, C.F. and B.D. Delvane, "Temperature impacts on economic growth warrant stringent mitigation policy," *Nature Climate Change* (January 12, 2015).

11. Executive Office of the President of the United States, "The Cost of Delaying Action to Stem Climate Change" (July 2014).